

2018
NON-FINANCIAL REPORT



H&R GMBH & CO. KGAA

Non-financial Report/ Non-financial Performance Indicators

Since financial year 2017, our financial reporting has included disclosures on material, non-financial aspects of our business activities in areas involving environmental, employee and social concerns, respect for human rights, and the fight against corruption.

The following section contains the non-financial report of the H&R Group in accordance with Section 289b–e of the German Commercial Code (HGB), in conjunction with Section 315b-c HGB. It is published online at www.hur.com.

Legal Requirements and Framework

No international framework has been applied in preparing the non-financial report since H&R's sustainability reporting is still a "work in progress". However, we were guided by aspects of and comments in the Global Reporting Initiative (GRI) Standards.

Identification of Material Non-financial Topics

Before preparing the non-financial report, a list of relevant non-financial topics was compiled internally and with the assistance of an outside consultant. All details were run by and agreed to by the Executive Board.

This included an examination of the value chain of the H&R Group and the topics previously discussed in the "Non-financial Performance Indicators" section of the company's annual report. A materiality analysis involving internal and external stakeholders was not performed for this non-financial report.

H&R KGaA's Business Model and Strategy

With the help of modern refineries and smart processes, we use crude oil derivatives to produce more than 800 high-grade chemical-pharmaceutical specialty products such as label-free process oils, white oils and paraffins. Precision plastic parts complete our portfolio. Our products

are an important component in the processes and products of numerous industries.

Today, we manufacture and sell our products worldwide through our organically developed network.

In our Chemical-Pharmaceutical Raw Materials Division, our aim is to establish production partnerships in addition to relying on our own additional processing facilities and sales/distribution units, the objective being to increase the ChemPharm Sales segment's share of total revenues.

We have defined the target of the "Green Refinery" for those production sites in Germany that we manage ourselves: This reflects our efforts to permanently reduce the percentage of combustion products and to generate an output of more than 90% in high-grade primary and value-added products.

In the Plastics segment, we aim to continue pursuing the corporate development efforts implemented over the past two years for the long term.

The umbrella term used to describe our strategic approach is G.A.T.E., referring to a "gateway to the future". In line with our goal of expanding further internationally, we see ourselves as a **Globally** oriented company. At the same time, we are building regional connections and we operate at a local level. The most important driver of our economic activity is our proximity to the market, which enables us to always **Act** with a deep understanding of our customers' specifications and needs in a user-oriented manner. At the same time, we continue to be **TechnoVative** by ensuring that our locations are always on the cutting edge technologically and searching for innovative solutions to achieve continuous improvements in our processes and products. We successfully combine Economy and Ecology, acting in an economically prudent way, with full awareness of the resources we are using. **Eco²**, i.e. "Ecology X Economy", increases the potential in both areas exponentially while bringing us another step closer to the Green Refinery.

Understanding of Sustainability and Material Topics at H&R

Corporate Responsibility

At H&R, as part of an owner-managed group of companies, we have always based our corporate policy on sustainability. We are convinced that the successes that come from quality management, safety, protection of the environment, and human health and compliance not only enhance our reputation, but also ensure our profitability and, as a result, our ability to sustainably increase our company's value and guarantee our future viability.

This conviction is expressed in our motto – “Oil is far too valuable to burn!” – which obliges us to strive for maximum resource conservation while systematically protecting the environment. At the same time, we take seriously our responsibility as an employer and place the highest priority on employee safety and development.

Only by taking into account both of these aspects, combined with our goal of flawlessly controlling and continuously improving production processes and associated services, can we also ensure that the quality of our products will continue to be impeccable in the future and thus meet our quality objective: to provide consumers with safe products that are in no way harmful to human health.

To accomplish this, we rely on a systematic, integrated management system (IMS) that encompasses all corporate processes and the associated workflows. The IMS also considers aspects such as occupational health and safety, environmental protection and quality requirements based on requirements for internationally recognized certifications (such as ISO 9001, ISO 14001 and OHSAS 18001). The IMS is regularly audited for compliance with the requirements by an independent outside testing body.

Challenges

As a specialty chemicals company, we face a wide variety of challenges with our business model. One of the major challenges stems from our vertical integration: at our refinery sites, the degree of processing involved in our production of high-grade specialty products far exceeds that of other refineries (whose processes end with the generation of fuels and base oils) and involves higher energy costs and greater consumption of resources.

Demographic change requires us to retain our skilled employees over the long term. We can only succeed in doing so if we offer our employees good jobs and enhanced job security while positioning ourselves as a responsible employer. Today, customers demand not just the same product quality that has been proven over many years, but expect H&R Group to be in a position to deliver environmentally friendly products which, wherever possible, are backed by the appropriate certifications. Guidelines intended to guarantee ethical conduct are becoming more and more important and extend to all partners in addition to our own company. This also encompasses both upstream and downstream aspects of our own value chain.

Identification of Material Topics

H&R Group is constantly dealing with relevant trends in its relevant industries and environments. The material topics to our company are those connected with the aforementioned challenges and how we respond to them. Developing suitable policies and action plans on material topics helps us to deal with these challenges in the best possible way and to mitigate them or turn them into opportunities.

For purposes of the CSR-RUG, the material topics we have identified from the challenges above are:

T. 01 MATERIAL TOPICS FOR THE H&R GROUP

Energy consumption and CO ₂ emissions	Environmental concerns
Waste	
Water and wastewater	
Employment	Employee concerns
Training and continuing education	
Occupational and process safety	
Product safety	Social concerns
Social commitment	
Human rights	Respect for human rights
Anti-corruption	Fight against corruption

For more on the fight against corruption and the respect for human rights please consult the section Corporate Governance Report (page 05). For all other issues, our policies, due diligence processes, objectives and results are described below.

Environmental Concerns: Climate Protection and Resource Conservation

The responsible use of natural resources and protection of the climate and environment are key goals of our company policy. On the one hand, we are always striving to reduce energy consumption and the amount of environmental pollutants caused by the production process. On the other hand, during our coupling process, further processing yields products that either offer an alternative to products containing substances harmful to the environment or products whose use will contribute to protection of the environment (see “Environmental Compatibility and Safety of Products”, page 10).

Our “Environmental Aspects and Impacts” database enables us to identify all activities that have an impact on the environment and to detect and assess risks during normal operations, during disruptions to operations, and in emergencies. If we see opportunities for improvement, we develop appropriate measures. Years ago, we started col-

lecting data on our emissions, waste and water consumption and to disclose these as absolute figures. However, because this did not adequately reflect the degree of value added or the size of our refinery sites, we decided back in 2012 to present the corresponding figures for our CO₂ emissions, wastewater and waste as the amount of emissions per ton of feedstock.

We use the figure for the year 2011 as the reference value of 100%. As the degree of vertical integration increases and production efficiency improves, we aim to avoid exceeding the reference value and where possible to come in below that benchmark.

Energy Efficiency and CO₂ Emissions

Our goal is to optimize our production processes so as to maximize the proportion of crude-oil-based specialty products and to minimize the proportion of barely usable or unusable materials. By 2020, we aim to convert more than 90% of raw materials used into high-grade products and to hold the percentage of combustion products correspondingly low.

Feedstock is an important factor here, because the better the quality, the higher the yield of high-grade specialty products. But energy consumption is also important: the greater the degree of processing, the more energy has to be used to produce the products.

A performance analysis by HSB Solomon Associates LLC® in 2017 confirmed our pioneering role

in energy efficiency in the refining sector: Our two specialty refineries in Hamburg and Salzbergen ranked in the first quartile in benchmarking with other refineries.

With two energy-intensive production plants, our company has a stated goal of always keeping our energy consumption as low as possible and ensuring that it is as efficient as possible so that we can reduce our CO₂ emissions as much as possible.

By doing so, we not only want to improve our own carbon footprint but also to help achieve the climate protection goals called for by the Federal Government and the Paris Climate Agreement. With this in mind, we have established an energy management system pursuant to the ISO 50001 standard at our refinery sites in Hamburg and Salzbergen. It defines company responsibilities, includes commitments to improve energy-related performance and compliance with all applicable statutory requirements regarding energy use, provides the framework for individual strategic and operating targets, along with measures for achieving them, and incorporates all of this into the company's energy policy.

H&R Group plans to make further investments in the years to come to increase process efficiency; as planning progresses, these will be specified in greater detail.

We see to it that compliance with the requirements of the ISO 50001 standard is audited on a regular basis by an independent outside expert. If the requirements are not being met, we will revise and adjust measures and processes accordingly. The most recent certification, which confirmed that we are in compliance with all requirements of the ISO 50001 standard, took place in 2016 and is valid until mid-2019. We also conduct annual internal audits to verify and demonstrate that the requirements of the ISO standard are actually applied in practice within the organization. We avail ourselves of the option under the ISO 50001 standard not to make our energy policy available to the public.

One of the major effects of higher energy efficiency and minimum energy consumption is to lower emissions of CO₂. The measures taken to reduce CO₂ emissions in our company are largely in line with those taken to reduce primary energy consumption, as outlined in our energy policy.

In order to provide the best possible overview of our emissions, our CO₂ footprint covers both direct emissions and indirect effects such as those associated with energy purchases. We account for the depth of our value chain by calculating the sum of all individual plant throughputs in the course of production. From a legal standpoint, the main pillars for determining our CO₂ emissions are, first and foremost, the provisions of the Greenhouse Gas Emissions Trading Act (Treibhausemissionshandelsgesetz/TEHG).

In addition, the ISO 50001 standard also calls for the monitoring of relevant data by providing for energy reviews, binding energy efficiency indicators and the introduction of an Energy Lifecycle Statement for certain plants. Finally, industry standards and very specific information such as information on individual plant set-ups, processes and production methods used, and the composition of energy sources and other operating resources used, are also included when calculating our CO₂ emissions.

For financial year 2018, our emissions per ton of feedstock totaled 346.7 kg. The figure for the past financial year was therefore above the level of the previous year (335.8 kg), however, also lower than the 2011 benchmark (398.1 kg).

T. 02 EMISSIONS OF H&R REFINERIES

PER TON OF FEEDSTOCK	2018	2017	2016
CO ₂ for all energy sources ¹⁾ (kg/t feedstock)	346.7	335.8	350.3

¹⁾2016 modified calculation basis as a result of improved plant engineering.

Waste

Because of the wide variety of types of waste, the quantity, the potential risk posed by hazardous waste, the complexity of disposal procedures and disposal costs, H&R KGaA places high priority on

operational waste management and on optimizing costs.

For example, the plant site at the Hamburg-Neuhof refinery produces around 63 different hazardous and non-hazardous types of waste in differing quantities and frequencies. These range from the non-hazardous waste specified in the Commercial Waste Regulation (Gewerbeabfallverordnung); through laboratory waste and construction waste, some of which is contaminated with hazardous substances and some of which is not (excavated soil, construction waste, road demolition rubble), scrap metal, and building components containing asbestos, sludge material containing oil from wastewater treatment, to cleaning waste from the process plants.

The approach we follow is to always reduce the amount of waste caused by our production process as much as possible. On the one hand, we accomplish this by achieving the best possible ratio of primary products to by-products and through a high degree of vertical integration. Most unavoidable waste is recycled. Residual material is disposed of professionally and in compliance with all legal requirements.

Goals and measures to reduce the amount of waste we generate are identified and implemented as part of our environmental management system, which is certified in accordance with the ISO 14001 standard and also includes specifications on waste management. This standard specifies environmental management requirements that organizations can implement to improve their environmental performance and to achieve environmental targets. It is based on the central elements of planning, implementation, control, and improvement.

Compliance with the requirements is verified and certified by an independent outside body. The most recent certification was carried out in 2018 and is valid until mid-2021. In addition, we ensure compliance with laws, provisions, audit obligations, and regulations and verify the performance of our environmental management system with the help of officer meetings, internal audits, and compliance audits.

The total amount of waste generated by H&R's refinery sites is at a gratifyingly low level. By way of comparison, in 2018 we managed to reduce the amount of waste we produce by approximately 7.0% compared to the benchmark year of 2011 (3.09 kg/ton of feedstock). In financial year 2018, we generated 2.87 kg of waste per ton of feedstock (2017: 2.97 kg).

T. 03 WASTE GENERATED BY H&R REFINERIES

PER TON OF FEEDSTOCK	2018	2017	2016
Waste (kg/t feedstock)	2.87	2.93	2.93

Water and Wastewater

Even if Germany is not subject to water restrictions, the prudent and conscious use of water resources is an issue that the H&R Group also classifies as essential. Most of the water required for our refineries is used for cooling. This water does not come into contact with our products and can be returned directly to the environment. Only a small proportion of the water is used directly in our refinery processes.

Once used, this water contains a large number of hazardous components and poses a high level of potential risk; consequently, wastewater management is also very important.

Basically, our goal is to consume as little water as possible and to generate as little wastewater as possible. The targets and measures for reducing our water consumption are identified, implemented and audited as part of our environmental management system, which is described in the section on waste. Our water sources are the local utility companies. The Salzbergen site also draws water from the Ems River and uses it, in processed form, as process and boiler feed water to provide steam. Water from the river is also used to compensate for evaporation losses in the cooling water circuit. In order to conserve water, we use our cooling water several times in the process. We are also working to create new ways to use service water in order to further increase the recycling rate.

Wherever possible we use sophisticated, complex procedures to purify contaminated process wastewater right at the point of contamination, before it can be returned safely to the environment as wastewater. In total, in 2018 we drained off 559.9 liters of domestic or process wastewater per ton of feedstock – after deducting the amount of rain falling on sealed surfaces – which was significantly (around 35.0%) below our 2011 benchmark (861.2 liters). In the previous year, by comparison, the quantity was, however, still around 621.5 liters.

T. 04 Wastewater generated by H&R refineries

PER TON OF FEEDSTOCK	2018	2017	2016
Wastewater (l/t feedstock)	559.9	621.5	600.9

Employee Concerns: Employees

Our company's success is heavily dependent on the skills, performance capabilities and commitment of our employees. Our human resources management is therefore especially important, because the actions it takes contribute decisively to the future viability of our company.

H&R's Human Resources Strategy

The particular conditions in local and regional labor markets pose a special challenge to the human resources management of H&R Group, inasmuch as they may differ greatly, for example in terms of demographics and educational level. In order to meet its corporate objectives, the H&R Group needs qualified employees for both its production sites and refining locations; as a result, human resources work focuses on employee recruitment and retention. The H&R Group therefore trains its own junior staff and offers attractive pay and personal training opportunities in order to retain skilled employees over the long term.

In addition, the H&R Group places the highest priority on safety and ensuring that employees remain able to work. In our human resources

work, we are guided by our globally binding guidelines, such as the code of conduct, the corporate policy and our compliance manual. Naturally, we follow carefully the local laws.

Human Resources Management Organization

The human resources management of the H&R Group is organized in such a way as to take into account site-specific and country-specific differences. Local human resources departments at the sites tailor their human resources management approaches to fit country-specific requirements. They are supported by the Human Resources department in Hamburg, which defines the general guidelines for our global human resources management.

Employee Structure

At year-end 2018, the number of people employed by the H&R Group had increased by 28 to 1,664 (December 31, 2017: 1,692). The following table shows a breakdown by division:

T. 05 EMPLOYEES BY DIVISION

	2018	2017	2016
Employees	1,664	1,692	1,628
of which ChemPharm	1,149	1,088	1,035
of which Plastics	487	575	565
Other	28	29	28
Personnel expenses in € million	87.1	86.0	86.7

Most of our employees work at the domestic refineries in Hamburg and Salzbergen (716 people (December 31, 2017: 685)) and at the GAUDLITZ GmbH site in Coburg (284 people (December 31, 2017: 326)).

At the end of the reporting period, therefore, these locations employed exactly 1,000 (December 31, 2017: 1,011) of our total number of employees. Female employees accounted for 20.25% (202 employees) of this figure, which, according to our own estimates, was quite high for a production company with full-time shift operations. The age structure of our domestic workforce has remained roughly the same in recent years. During the

reporting period, the 41-to-50 age group was the largest. The age distribution of our employees is thus typical of industrial companies in Germany.

Employee Recruitment and Retention

To recruit new employees, we rely primarily on traditional channels such as recruitment consultants, job portals, advertisements, and our own website. One of the main areas we focus on is recruiting young employees under apprenticeships to become chemical technicians or laboratory technicians.

Our performance-related remuneration models and flat hierarchies also make us an attractive employer for experienced professionals. At the German sites, most employment contracts are subject to the terms of collective bargaining agreements. In addition, we offer our employees flexible working hours (part-time arrangements, honor-system working hours) which – to the extent possible, given the processes and operating needs, such as shift work – they also take advantage of. Further, we offer numerous individual, in-house opportunities for continuing education in order to retain our employees over the long term (see Training and Continuing Education, page 08).

Our employees are very committed to the H&R Group. This is demonstrated, in particular, by the high average seniority and the persistently low staff turnover ratio at the sites in Germany. We calculate the turnover rate exclusively on the basis of voluntary resignations by employees. Employees retiring for age reasons are not counted, as new employees are generally hired to replace them. In 2018, our turnover rate was just under 5.3% (2017: 1.0%), which was far below the two-digit turnover rate customary for employees covered by the German social security system.

Training and Continuing Education

As we can only compete internationally if we have superbly trained employees on board, we consider our spending on advanced training and pro-

fessional development to be an investment in the future of our company.

When choosing advanced training courses, we follow an individual approach that promotes employees' strengths and helps them to achieve their career goals. To that end, we want to create dependable future prospects for our employees and to support them in their professional and personal development. Here, we focus primarily on in-house continuing education programs, such as master craftsmen's training courses, but also on regular discussions and feedback sessions.

The increasing complexity of our plants and equipment also requires well-trained employees. For example, for the supervision of the processes in the refineries' measurement and control rooms, we deploy only experienced employees, who are ready and willing to regularly expand their knowledge base.

We use our training management information system (SMIS database) to plan, coordinate and document all training activities within the company. If all of our employees worldwide complete the various training programs and briefings planned for them, around 19,400 training courses will be provided over the course of a financial year. In 2018, around 780 of our employees took part in continuing education courses, most of which are available online, reaching 91% of this target. In addition to covering the traditional jobs at our sites, the training also covers more general topics such as environmental protection, healthcare, social and cross-cultural skills. New content can be added to the training system, depending on the specific needs of the individual subsidiaries or departments.

Occupational and Process Safety

As an operator of refineries and production plants, H&R Group places a high priority on occupational safety. In their daily work, many of our employees control, operate, and maintain machinery and plants; in addition, our refinery

processes utilize various substances that must be handled with the utmost caution. We comply with the German statutory requirements stipulated in Section 2 of German Social Accident Insurance Regulation 2 (Deutsche Gesetzliche Unfallversicherung Vorschrift 2/DGUV V2) and Section 5 of the Occupational Safety Act (Arbeitssicherheitsgesetz/ASiG) by deploying specialists in occupational safety. At our international subsidiaries, the powers and responsibilities of occupational safety managers are based on the requirements promulgated by the Occupational Safety and Health Administration (OSHA) within the framework of each jurisdiction's particular legal provisions.

Group-wide, we strive to have uniform safety standards that exceed statutory requirements. In doing so, we take the entire value chain into consideration: from the delivery of raw materials to the use of our components in our customers' products.

Occupational healthcare and safety specialists provide support by introducing suitable measures to prevent accidents and illnesses. Our occupational health and safety regulations also promote this objective. Many of the occupational health and safety measures that we take are aimed at raising employees' awareness of potential dangers – to protect them as well as their coworkers. Therefore, a key safety issue at all of our sites is providing continuing education to our employees: we hold regular training sessions on topics relating to safety and require all our employees to visit our Internet-based safety instruction system on a regular basis. Contractors working in our factories are also included in our safety strategy. Every H&R Group employee is required to diligently follow the safety rules in their own work area.

Both, before starting to work and at regular intervals, employees are required to attend briefings and training courses at which they are informed about, and sensitized to, possible safety risks, potential dangers, and how to properly handle

hazardous materials. In addition, regular safety inspections, detailed analyses of any loss events or claims, a special report on safety-related indicators, and the active involvement of the Executive Board ensure that our safety performance is constantly improving.

In case of a relevant event, the executives and safety managers must immediately notify the company departments that are responsible for health, safety, and environmental protection.

Our accident statistics are based on the international CONCAWE standard (CONservation of Clean Air and Water in Europe) which uses the indicators LWIF (Lost Workday Injury Frequency) and LWIS (Lost Workday Injury Severity). The LWIF figure shows the frequency of accidents (number of work accidents with at least one day lost for every one million working hours). The LWIS figure shows the severity of accidents (number of days lost per work accident). Here, both our own employees and our contractors are taken into account.

The standards we apply are therefore much stricter than those called for by the employers' liability insurance associations in Germany, for instance. During the past year, our safety efforts were not as successful as they usually are: In 2018, the LWIF figure for our refineries was 7.2 (previous year: 5.3) – once again a level with which we are not satisfied. The frequency of accidents, particularly among outside contractors, remained too high. By contrast, there was an encouraging drop in the severity of accidents based on the LWIF definition during the same period. We are expanding our system of more extensive training measures, regular briefings and daily refinery rounds conducted by the individuals responsible for the site. Here, we will also be relying on our own well-trained employees to pass on to contractors their own practical knowledge of how to remain attentive and safe as they carry out their work at the respective sites.

T. 06 OCCUPATIONAL SAFETY AT H&R'S REFINERIES

	2018	CONCAWE Standard	2017	2016	2015
Number of occupational accidents with at least one day lost per million working hours (Lost Workday Injury Frequency; LWIF)	7.2	1.0	5.3	0.7	0.6
Number of occupational accidents with at least one day lost	11	-	16	4.0	1.0
Number of days lost due to accidents	177	-	263	73.0	12.0
Number of working days lost per occupational accident (Lost Workday Injury Severity; LWS)	19.4	35.6	21.1	13.4	12.0
Number of fatal occupational accidents per one hundred million working hours	0.0	1.0	0.0	0.0	0.0

In addition to evaluating occupational safety, we also rate the production processes and workflows implemented at H&R, meaning that we systematically analyze all relevant production processes, up to and including an analysis of damages once any events have occurred. In other words, we investigate how error-prone our processes are and the extent to which they can reliably be performed error-free. Since the start of 2011, we have used the PSE to measure our performance in the area of process safety.

To calculate this figure, we track incidents relating to the safety of our processes (PSE – Process Safety Events) per 1 million working hours. We ensure that our results are meaningful by comparing them with the reference figure from the industry association CONCAWE, which set its benchmark standard for 2018 at 0.85.

We achieved an average annual PSE of 0.42 at both refinery sites. Since we began recording the PSE, we have therefore always performed better than the CONCAWE benchmark standard.

Social Concerns: Product Responsibility and Social Commitment

Environmental Compatibility and Safety of Products

Respect for the environment, our neighbors, our business partners and employees obliges us to manufacture products that are safe to use, to conserve natural resources, and to use environmentally compatible production processes that are safe and use less energy.

It is the joint responsibility of all employees to constantly search for opportunities to reduce the environmental impact of our processes, products and services. Therefore, wherever it is feasible and appropriate to do so, we design our production processes and processing facilities in accordance with the latest technology and in such a way as to conserve resources.

Our products are used in many industries and almost all areas of life, for example in the food and packaging industries, but also in the cosmetics and pharmaceutical sectors. In the food industry, for example, cheese rinds are coated with paraffin to prevent the cheese from drying out. The packaging industry has various uses for paraffins, including coating the inside of Tetra Pak containers. Our medical white oils are found, among other applications, in cosmetic products such as creams and ointments. Since our products also come into contact with people in the

end products in which they are used, it is particularly important that they are harmless and non-hazardous to the health over their entire lifecycle. On the one hand, we guarantee this by portraying all product development and testing processes in our laboratory data information management system (LIMS). On the other hand, we apply international standards such as Advanced Product Quality Planning (APQP) and standardized internal approval processes.

In recent years, we have also concentrated on developing environmentally friendly products that meet the highest quality standards. Our environmentally friendly products either offer an alternative to products containing environmental pollutants or, by virtue of their use, help to protect the environment. For example, the white oils produced in our refineries are used as components in pesticides to improve the yield of renewable raw materials. Our paraffins can be used to weather-proof domestic timber varieties. Their use renders intensive deforestation of slow-growing tropical timber stocks unnecessary.

The innovative products from our Plastics Division are increasingly being substituted for metal parts used in the automotive industry. The resulting weight reduction helps to reduce vehicle fuel consumption even further. At the same time, the amount of energy used in their production is much lower than for comparable metal components.

We are making a further contribution to environmental compatibility by optimizing our yield of primary products while reducing our output of by-products to the greatest extent possible. Nevertheless, the production process at our production sites in Salzbergen and Hamburg generates residues which, by using our propane deasphalting plants, we can convert into environmentally friendly, crude-oil-based specialty products and asphalt for use in the road-building industry. Some of this bitumen can also be reused as a raw material by other refinery operators. In this regard, one focus of our R&D work is on further reducing the percentage of by-products and/or products that are ultimately incinerated.

In addition, we are also working to promote the switch from fossil fuels to renewable raw materials (without competing with agricultural land and food), up to and including synthesized raw materials.

We apply the standards set forth in the European Union's Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). At a local level, we also joined the REACH Hamburg expert network in 2014.

For 2018, we are not aware of violations of legal provisions, requirements or labeling obligations. However, we cannot fully rule out the risks inherent in operating industrial plants (including risks arising from our refineries and our products). For example, in order to ensure that both the sites and their neighbors are protected, we operate our own plant fire brigades and/or are in close contact with the local emergency teams. Regular drills ensure smooth cooperation.

Social Commitment

At its production sites, the H&R Group is not only a company and employer, but also a neighbor. The H&R Group has processes to handle complaints management. Suggestions and complaints from the public are investigated accordingly; the remedy is usually direct and unbureaucratic. In addition, the company holds regular events at its sites such as "Open House" or, specifically in Hamburg, an event as part of the "Lange Nacht der Industrie" (long night of industry).

To date, the company does not have an overriding, Group-wide policy regarding its social commitment. However, The H&R Group takes its social responsibility seriously. Our sites are responsible for their social activities, which are adapted to country-specific requirements. In Germany, for example, we support the Landmann Stiftung, which provides funding for one or two students each year in our specialty areas (Chemistry and Engineering Sciences).

The H&R Group also sponsors sporting events and youth programs and provides financial support for various institutions. The annual total is in the moderate five-digit range. We are especially

proud of our many dedicated employees, who voluntarily and on a good-will basis get involved in various religious, sociopolitical or neighborhood issues at our locations. Above all, they are making a difference in areas where what is needed is helping hands, not financial resources.

Major Risks

As a success-oriented, responsible-minded company, we operate an integrated, Group-wide risk and opportunity management system. Our goal is to identify, assess, communicate and manage relevant risks at an early stage in order to prevent

or limit damage to our company. We also want to identify relevant opportunities early on so that we can take maximum advantage of them.

Our risk management system is based on a structured process for recording and managing risks. All our relevant risks are classified uniformly throughout the Group. A risk is classified as low, medium or high based on the parameters “Probability of Occurrence” and “Potential Financial Impact”.

The resulting risk classification matrix is shown in the following table:

T. 07 POTENTIAL FINANCIAL IMPACT¹⁾

	Likelihood of occurrence ²⁾		
	Unlikely	Possible	Likely
Existential threat	●	●	●
Significant	●	●	●
Moderate	●	●	●

¹⁾ Moderate: some negative effects on business activity, financial position, results of operations and cash flows if EBITDA falls below €30.0 million in 2019.

Significant: substantial negative effects on business activity, financial position, results of operations and cash flows if EBITDA falls below €30.0 million over the next two years.

Existential threat: substantial negative effects on business activity, financial position, results of operations and cash flows owing to which the continued existence of the enterprise would be jeopardized, e.g., with an EBITDA permanently below €30.0 million.

²⁾ 1–33%: Unlikely; 34–66%: Possible; 67–99%: Likely

● Low Risk ● Medium Risk ● High Risk

In the risk management process it is differentiated between environmental and industry risks, operating and corporate strategic risks and financial risks. This process also covers technical production risks – which may include risks from operating the plants or accidents and may harm people and the environment – as well as risks arising from product liability and personnel risks.

The aforementioned risks are already being managed by our Group-wide risk management system and are shown in the following table. None of these risks has been identified as having a high probability of occurrence or potentially serious consequences for our business or our business relationships. No other material risks resulting from our business activities that could potentially have serious consequences in those areas covered by the CSR-RUG were identified.

T. 08 CORPORATE RISKS

	Likelihood of occurrence	Possible financial impact	Risk classification
Macroeconomic and Industry Risks			
Fluctuations in demand and margins	possible	significant	●
Raw material supply risks	unlikely	significant	●
Composition of raw materials	possible	significant	●
Risks from the development of substitute products/ general competitive pressure	likely	moderate	●
Changes in the tax and legal environment	possible	moderate	●
Brexit - Composition of European Union	possible	moderate	●
Operating and Corporate Strategy Risks			
Technical production risks	unlikely	significant	●
Investment risks	unlikely	significant	●
Risks associated with contractual relationship with Hansen & Rosenthal Group	unlikely	significant	●
Product liability risks	unlikely	moderate	●
Personnel risks	unlikely	moderate	●
Financial Risks			
Liquidity risks	unlikely	significant	●
Risks from the breach of covenants	possible	significant	●
Risks from future refinancing requirements	unlikely	significant	●
Exchange rate risks	possible	moderate	●
Interest rate risks	possible	moderate	●
Risks from defaulting customers and banks	unlikely	moderate	●