



Sustainability Report 2023

RAHN
Your partner for excellence



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Message from the owner



Ana Patricia Rahn Erden

When the RAHN-Group was founded in 1940 by my grandfather, Hans Rahn, he laid the foundations for a company that would act responsibly and make a positive contribution to society, both economically and socially. My father, Hans, reinforced this thinking in the 1970s by establishing profit-sharing for all RAHN employees, the Rahn Kulturfonds to promote the arts, and the Rahn Foundation to support socially and economically underprivileged people. Our steadfast commitment to sustainability has persisted to this day and has become firmly integrated into our thinking over the years.

The purpose of this year's sustainability report is to present our daily activities in the form of facts and figures. This data reflects our continuing efforts to achieve a positive impact not only in economic and social terms, but also with respect to the environment.

As an SME with Swiss roots that operates globally, we are aware of our limited scope for influence. However, we take our responsibility for sustainable development very

seriously. This is also true of each of our 133 employees across our two business divisions, EnergyCuring and Cosmetics.

Looking back at what we have achieved this year, I would particularly like to highlight our creation of a dedicated sustainability position, our EnergyCuring division's development of a comprehensive sustainability strategy, and the Cosmetics division's achievement of 100 % trading with palm oil derivatives under RSPO certification.

Furthermore, I would like to point out that we became a member of the UN Global Compact in 2023, strengthening and widening our commitment to sustainability.

Our focus is not only on what we have accomplished thus far, but also on where we would like to be in the upcoming years. Our goals are ambitious, but they are achievable. We aim to complete an overhaul of our sustainability reporting with new, ambitious KPIs. We are also working to implement the new EnergyCuring sustainability strategy and are continuing to pursue the Cosmetics division's sustainability goals, including a product portfolio with carbon and water footprint assessments, and a traceable and secure supply chain.

Thanks to the commitment of our employees, I am confident that together we will be able to make an effective contribution, driven by our constant striving for improvement.



Environmental:

“ Building a sustainable supply chain entails integrating environmental, social and economic considerations across all operational facets, ensuring resilience and responsibility for generations to come. ”

Julia Schmidt, Head of Supply Chain Management EnergyCuring

“ In logistics, we focus on optimizing processes and reducing emissions to operate in a sustainable way! ”

Andreas Hermann, Head of Logistics

“ RAHN has been promoting UV/EB curing for over 30 years, recognized as a green technology. Our new bio-based energy curable oligomers demonstrate a commitment to sustainability. We continue to develop interesting products in this area. ”

Roger Küng, Head of Operations EnergyCuring



Economic:

“ Only a healthy economy can promote sustainability. It is therefore important for us at RAHN to emphasise solid and balanced economic growth to be able to make our important contribution to sustainability. ”

René Guldemann, Vice President Cosmetics



Social:

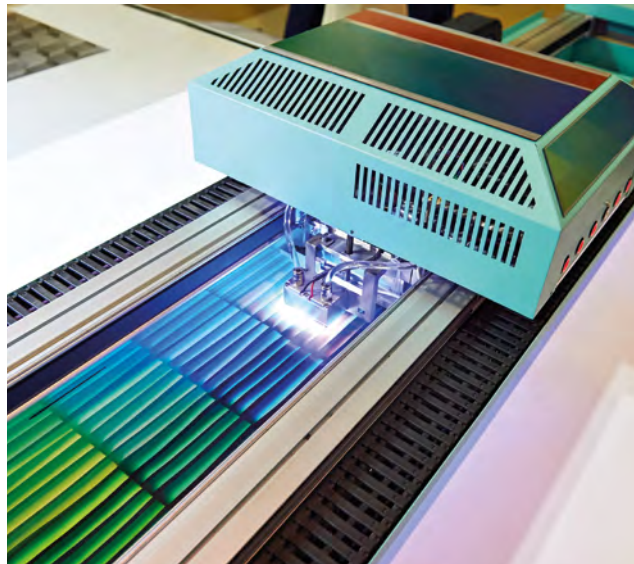
“ I see sustainability as an equation where environmental care plus social responsibility equals financial success. I'm proud that RAHN is committed to walking this path. ”

Milena Grossmann, Head of Finance

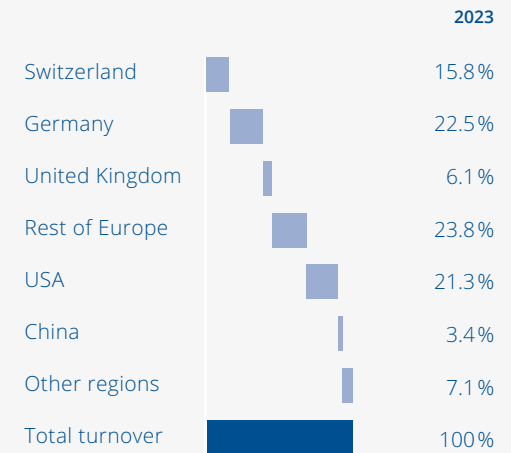
Who we are, what we do and how we do it

The RAHN-Group, founded in 1940 in Zurich, Switzerland, develops and distributes performance materials to highly specialised industries. Our two divisions EnergyCuring and Cosmetics serve the markets of surface technologies and personal care. As an innovative technology company, we combine high-quality products, in-depth expertise and comprehensive services to offer our customers tailor-made integrated solutions.

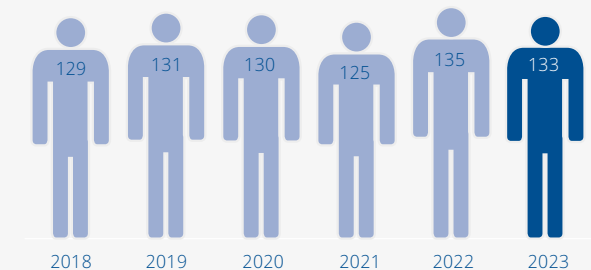
We pride ourselves on our long-standing tradition as a family-owned business, our responsible business ethics and a professional attitude to service. As a group of eight companies that spans three continents and boasts 133 employees, we are a global enterprise, yet small enough to still truly care for all our individual business partners.



TURNOVER IN PERCENT



NUMBER OF EMPLOYEES



How we do it

RAHN's business model is based on excellent market access and expert knowledge of application technologies in our industries. We operate R&D and application labs and employ a significant number of industry experts to support customers in all aspects. We do not own any manufacturing assets. We innovate and develop new products that are subsequently manufactured by various industry partners around

the world. For some parts of our product portfolio, we act as a local distribution partner of multinational specialty chemicals and ingredients manufacturers. Worldwide sourcing, warehousing and delivery logistics are contracted out to specialists in those fields. Today, our business footprint therefore consists of four offices, five labs and a number of sales representatives that serve their respective markets in EMEA, the Americas and Asia-Pacific.

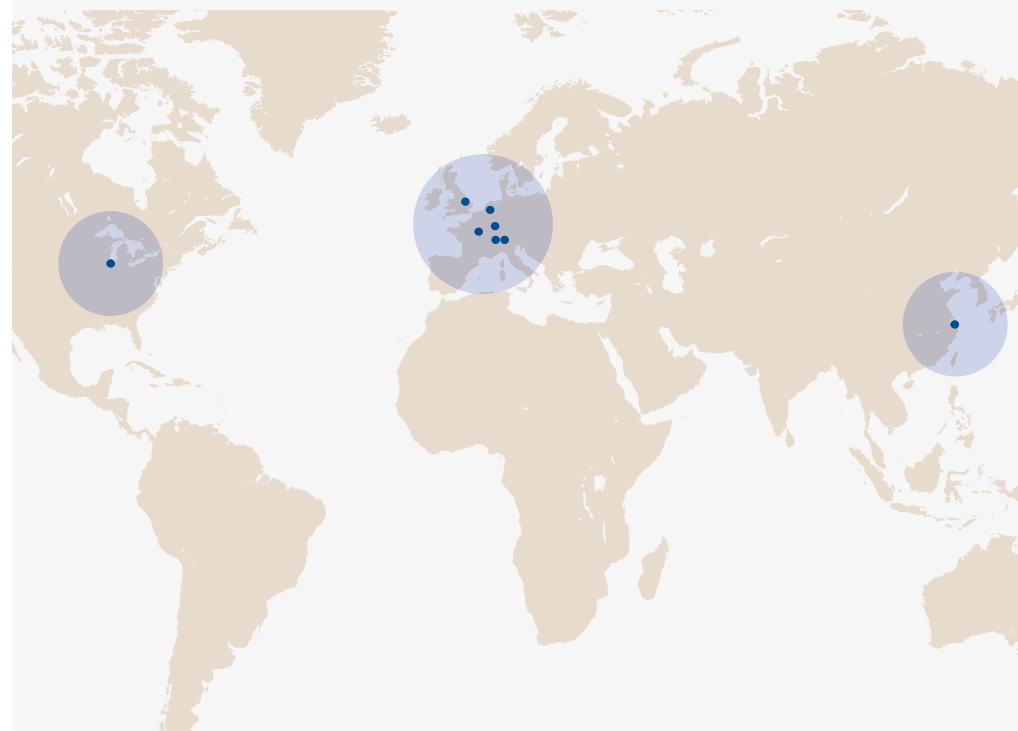
ADDED VALUES



Stakeholders

- Customers
- Suppliers
- Ownership & authorities
- Employees
- Environment & society
- Supply chain partners

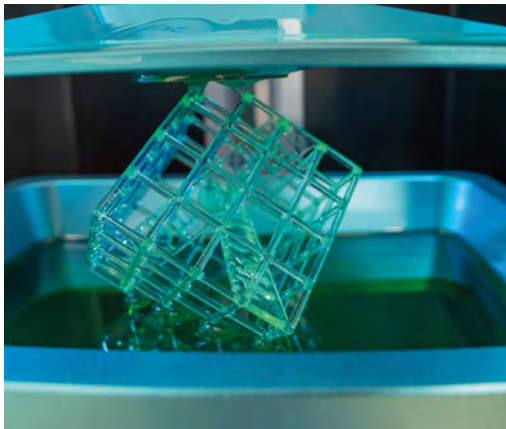
SUBSIDIARIES WORLDWIDE



EnergyCuring



Our **EnergyCuring** division is a premier worldwide supplier of additives, oligomers, monomers, photoinitiators and other customised specialty chemicals. Our products are used in ultraviolet and electron beam curing technologies and are essential components in high-performance inks, coatings, adhesives, medical products, rapid prototyping and other applications.



Cosmetics



Our **Cosmetics** division already has almost 60 years of experience in supplying the cosmetic industry with specialties and additives. Thanks to the combination of constructive, long-term cooperation with selected suppliers and our own brand RAHN-Cosmetic Actives, we offer a modern and high-quality portfolio that represents real added value for our customers and their cosmetic products.



Vision

Rooted in tradition and sparked by creativity, we shine for the next generation.

Mission

We support our industry partners around the world by supplying innovative performance materials. We assist our customers in promoting advanced and sustainable formulations for the benefit of consumers. We aim to facilitate the efficient use of our high performance products by combining them with technical expertise and operational excellence.

SWISS EXPERTISE 

Strategy

- Customer and service orientation
- Focus on product innovation
- Long-term partnerships
- Supporting the personal growth of employees
- Inspiring and entrepreneurial working environment
- Combining specialty with selected commodity products
- Geographic expansion
- Sustainable business development
- Financial independence
- In-house IT and data management



Social and cultural commitment

Rahn Foundation

The Rahn Foundation was established in 2003 and continues the mission of the Rahn relief fund, which for decades supported social projects in the Zurich region and also made donations to help disaster victims in Switzerland and beyond. The Foundation is primarily funded by RAHN AG.

Over the past 27 years, the Rahn Foundation has awarded support funds totalling CHF 6,200,000.

Examples of applications approved in 2023:

- [Brunau-Stiftung, Zurich](#)
Contribution to the creation of additional residential places
- [Treffpunkt Demenz und Kultur, Aeugst am Albis](#)
Co-financing of an exhibition
- [BBI Züri West, Zurich](#)
Donation for a new CNC milling machine
- [ROCK YOUR LIFE!, Zurich](#)
Contribution to the 2023-25 mentoring cohort
- [Stiftung Wisli, Bülach](#)
Co-financing of the catering at the new location (Glasi-Areal)
- [Verein Familien- und Jugendhilfe, Winterthur](#)
Contribution to the "Accompanied sponsorships" program
- [Postpartale Depression Schweiz, Zurich](#)
Co-financing of the advice centre
- [Verein «leben wie du und ich», Zurich](#)
Contribution to projects to support people with complex disabilities

Rahn Kulturfonds

Rahn Kulturfonds was founded over 45 years ago to reward and promote outstanding students of Swiss music academies. In that spirit, Rahn Kulturfonds holds the biennial competition Rahn Musikpreis, alternating between piano and string instruments. It also awards scholarships on a yearly basis and lends instruments to distinguished young musicians. To ensure artists are supported over the long term, the foundation organises concerts for awardees. The institution is funded by RAHN AG.



▲ Rahn Concert Continuo 2023 at ZKO-Haus Zurich, where prize winners and scholarship holders of Rahn Kulturfonds took the stage. Pictured above: Georgiana Pletea, piano (2nd prize Rahn Musikpreis 2020 for piano) and Marc-André Teruel, double bass (3rd prize Rahn Musikpreis 2022 for strings).



▲ Rahn Concert Più 2023 at Kulturhaus Helferei in Zurich, the annual concert for music lovers of all ages, where eleven prize winners and scholarship holders performed.

Our approach to sustainability



Xavier Marguerettaz, PhD
CEO, Vice President EnergyCuring

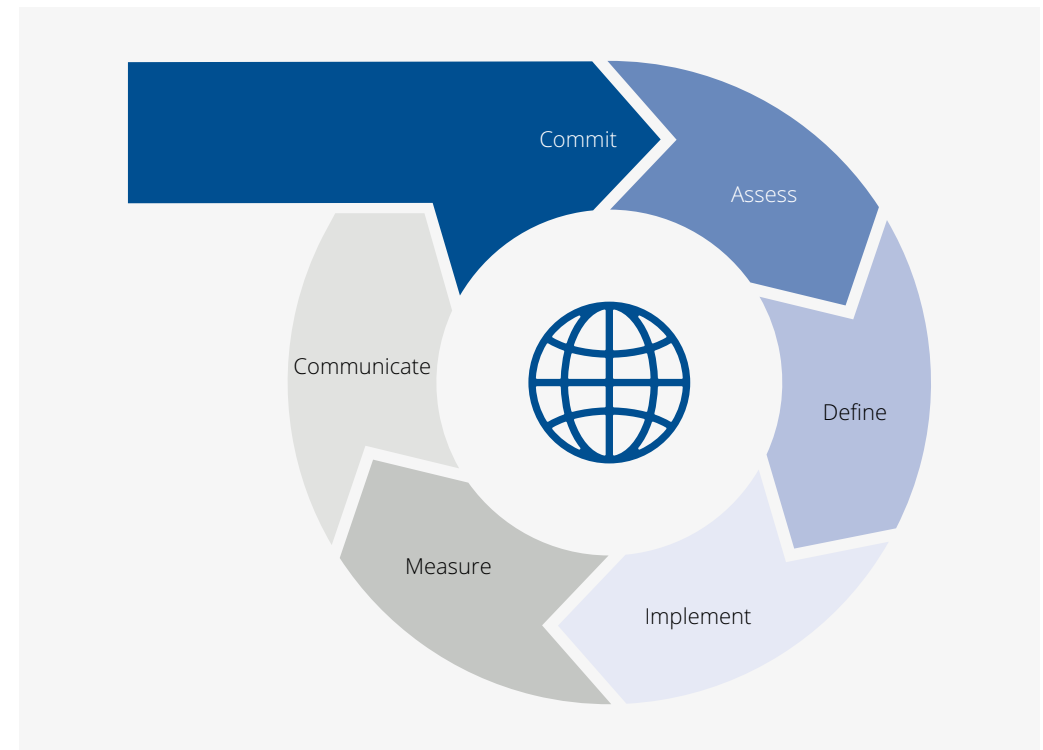
In a world increasingly defined by its response to environmental and social challenges, RAHN has continuously been engaged in the complex terrain of sustainability, committed to advancing economic, environmental and social responsibility where it can have a concrete impact. The year 2023 was marked by unprecedented climate issues and human rights concerns, underscoring the urgent need for cohesive and decisive action. In the midst of these tests, the evolution of legislation in Switzerland, across Europe and globally, signals a pivotal shift from voluntary sustainability efforts to mandatory compliance, driving companies to align their operations with considerable environmental and social responsibilities.

This shift is emblematic of a wider movement towards embedding sustainability not just as the 'right thing to do', but as a fundamental element of business strategy, essential for securing operational legitimacy and fostering long-term resilience. In recognition of this, RAHN has joined the United Nations Global Compact (UNGC), committing to work with industry leaders to define and implement concrete steps to improve sustainability across all facets of business.

This alignment with the UNGC not only reinforces our commitment to sustainable development, but also enables us to participate in industry-wide efforts to address the pressing challenges of our time. Our journey towards sustainability is driven by a strategy that recognises the delicate balance between economic development and environmental protection and follows a pragmatic route adapted to the size of our company and the genuine impact RAHN can achieve.

In demonstrating our commitment to 'walking the talk', RAHN has undertaken several concrete initiatives. Notably, we have embarked on an impactful restoration project centered on the planting of trees in Indonesia under the RAHN-Cosmetic Actives umbrella. This initiative not only aids in carbon sequestration but also supports local ecosystems and communities, reflecting our holistic approach to sustainability.

Additionally, our proactive engagement with customers in the graphic arts and industrial coatings industry through our EnergyCuring division exemplifies our commitment to collaborative sustainability efforts and innovation.



By working closely with these partners, we are developing concrete solutions that help to reduce downstream energy consumption (e.g. LED curing) and decrease our reliance on fossil fuel-based upstream raw materials (e.g. by using bio-renewable content (BRC)). These activities are not merely contributions toward global sustainability goals; they serve as a witness to RAHN's enduring commitment to practical and impactful environmental stewardship, working closely in both directions in the value chain. Through such initiatives, we ensure that our sustainability claims are substantiated by tangible action that can foster positive change.

To live up to this commitment, RAHN has always pursued continuous improvement across all the three dimensions of sustainability (social, environmental and economic). The company is guided by pragmatic governance principles and is evaluated by the independent, third-party sustainability ratings company EcoVadis. Our commitment is not a one-off, but an ongoing process inherited from the traditions of our 3rd generation family-owned company, reflecting our belief in the symbiotic relationship between sustainable practices and business excellence. As we continue on this journey, we are not just adapting to upcoming changes in the regulatory landscape; we are trying to make a very real contribution to a more sustainable future wherever we can. Throughout these endeavours, we are driven by a firm belief in the transformative power of responsible business practices.

Scope and objective

The year 2023 has marked a significant transition in our sustainability journey, signalling a pivotal expansion of our focus beyond the immediate bounds of Scope 1 emissions. During this transformative period, we also clarified our sustainability strategy at the business unit level, reflected by organizational changes, ensuring full alignment with the overarching RAHN-Group strategy. This strategic adaptation was aimed at fostering a more comprehensive approach to sustainability – one that extends our efforts to encompass and support our business stakeholders in their own sustainability endeavours.

We have responded to the growing challenges by expanding our human resources for sustainability issues. This also enables us to safeguard our growing commitment in this area.

In 2024, we aim to further align our non-financial reporting with new and ambitious KPIs based on international standards, so that we can better report the progress we are achieving.

▼ In 2023, RAHN supported there-for-trees in Switzerland and the Yayasan Rimba Raya Abadi Foundation in Borneo.



Picture: Planting campaign in Switzerland with a school class

RAHN's sustainability strategy

- RAHN aims to maximise its positive socio-economic contributions to all its stakeholders, while seeking to minimise its negative effects
- RAHN's ownership and management are driving the sustainability initiative
- RAHN's approach is pragmatic and balanced, based on a positive attitude towards social market economies and economic progress
- RAHN focuses on a limited number of sustainability elements where it has the biggest impact
- RAHN favours open dialogue and collective efforts up and down the supply chain over immediate sanctions
- RAHN's socio-economic impact is assessed annually, goals are defined, initiatives implemented and the results of such initiatives are measured and reported in a transparent manner
- RAHN is committed to having its sustainability efforts evaluated by selected independent third parties



Governance

The Board of Directors and the Executive Management do not see this sustainability initiative as a one-off project, but as a continuous process. Our sustainability report forms an integral part of our reporting system. Further, we also want our efforts to be evaluated by trusted rating agencies – with the most established in our industry being EcoVadis, which we have chosen as a primary point of reference.

To ensure this sustainability strategy is incorporated into everyday business activities and thus becomes part of our corporate DNA, the following governance principles have been defined:

- The Board of Directors and the Executive Management review the sustainability strategy and its operational implementation on an annual basis
- Sustainability is firmly anchored in the overarching RAHN-Group strategy
- A steering committee with employees from various functions and hierarchical levels is formed to implement and maintain the sustainability initiative
- Sustainability KPIs are defined, as are related long-term targets and projects that drive the organization towards these targets
- An annual report is to provide transparent information on all relevant dimensions of sustainability



What we focus on

RAHN is basing the evaluation and definition of its sustainability goals largely on the categories proposed by the 17 United Nations Sustainable Development Goals. In September 2015, the United Nations adopted 17 Sustainable Development Goals (SDGs) that address the world's most important economic, social and environmental challenges.

The SDGs are the result of years of multi-stakeholder engagement between governments, non-governmental organisations (NGOs) and businesses. The private sector plays an important role in achieving the SDGs and our work contributes to a number of these goals.

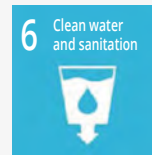
We have identified 13 goals that we can directly contribute towards. For seven of these goals, we have identified initiatives we want to implement in order to enhance our positive impact. Currently, we are measuring our efforts against data from 2018 as a baseline.



In order to better structure our activities and goals, we have identified three elements that nicely sum up our approach to sustainability and that form the basis of our initiative:

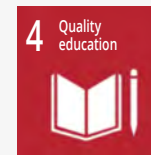
Environmental sustainability

includes the following SDGs:



Social sustainability

includes the following SDGs:



Economic sustainability

includes the following SDGs:



Environmental sustainability

What matters most

In 2020, RAHN defined three environmental impact factors (under Scope 3) where we have the greatest immediate leverage to make a positive impact. However, we have been tracking our business travel, consumables and product procurement since 2018 and have therefore selected that as our baseline year. We also set targets for 2023. In this report, we aim to illustrate the progress RAHN has made over the last five years, covering Scopes 1, 2 and 3.

Scope 1 – The direct emissions for sites and/or vehicle fleet owned by company

RAHN does not own any manufacturing facilities and does not use fuel combustion at any of our company sites, therefore there is no **stationary combustion** in our day-to-day operations. We have looked at our **fugitive emissions** for our IT operations. Our data centres are outsourced and meet the highest security and availability requirements. They fulfil energy, quality and environmental management standards (ISO 5001; ISO 9001:2015; ISO 14001:2015). Furthermore, they operate sustainably, are climate neutral (myclimate) and use 100 % renewable energy. **Mobile combustion emissions**, or direct GHG emissions from owned mobile sources (company fleet), have been tracked since 2018. In 2021, we stipulated that all newly purchased company cars must not exceed a CO₂ emissions limit of 150 g/km. In the same year, four electric charging points were installed at headquarters. In 2018, 7 % of cars were electric/hybrid and in 2023 we reached 24 %. The biggest switchovers took place in Switzerland and Germany, while in France and the USA there has been no change for the time being. According to studies, switching from combustion engine to electric vehicles can reduce CO₂ emissions by between 73 and 89 % per

vehicle over the vehicle's lifetime, provided green electricity is used¹. Fleet decarbonisation, whether powered by renewable gas, electricity or both, requires a comprehensive analysis of business operations, an intricate understanding of the regions and time for implementation. RAHN is committed to reducing the emissions and environmental impact associated with the company's fleet. On the one hand, we are going to reduce our fleet where it makes sense to do so and, on the other hand, we are going to replace old vehicles at the end of their life cycle with more sustainable and environmentally friendly alternatives.

¹[Total CO₂-equivalent life-cycle emissions from commercially available passenger cars – ScienceDirect](#)



Scope 2 – Consumption of purchased energy and heating for all corporate sites

The energy used at the headquarters and subsidiary sites (2018 – 2023) is shown in the table below (kWh and CO₂eq). The electricity used at **headquarters** from 2018 to 2022 was mainly hydroelectric, but we switched to a renewables mix in 2023. In 2018/2019, the renovation of the headquarters resulted in a 60 % reduction in energy consumption. District heating is used at headquarters. Our heat consumption has not changed dramatically over the last five years. The emissions generated range between 2.88 t and 3.83 t CO₂eq per year (average 3.44 t CO₂eq per year).

Our **subsidiary in China** was relocated in November 2018, so we can only provide figures for the years 2019 to 2023. The energy used is mixed electricity (over 60 % coal-fired)² and the associated CO₂eq is 531.15 g/kWh³. Air conditioning is used to regulate the temperatures in summer and winter.

The electricity used at our **subsidiary in the USA** (Aurora, Illinois) is a mix of natural gas-fired and nuclear power. Fortunately, the City of Aurora (Illinois) continues to expand its green energy options and promote energy efficiency, with a goal of becoming a 50 % renewable energy city by 2025 and 100 % by 2050⁴. The heating at this subsidiary utilises the dual heating system (natural gas and air conditioning).

Energy consumption at our subsidiaries in China and the USA is included in the rent for these sites, so figures (kWh) have been extrapolated. CO₂eq have been calculated based on the energy source used at the site.

The **Application Laboratory in the UK** was relocated in December 2022. As the laboratory was previously part of the University of East London, we could not collect data on energy or heating. The energy used at the new site is 100 % renewable electricity. Natural gas is used for heating. The recycling rate for the laboratory is 81 %.

At the Joint Venture site (**RadLab**), energy used for daily operations is mixed (mainly hydropower / other renewables (79 %) and nuclear energy (21 %)). Natural gas is used for heating, which is included in the rent and cannot be shown in detail.

² [China – Countries & Regions – IEA](#)

³ [China: power sector carbon intensity 2023 | Statista](#)

⁴ [23893-Climate_and_Equitable_Jobs_Act.pdf \(illinois.gov\)](#)

Site	Unit of measurement	2018	2019	2020	2021	2022	2023
Headquarters CH	kWh	105 371	65 208	42 903	38 089	40 367	41 096
	CO ₂ eq (t)	1.58	0.98	1.03	0.91	0.97	0.65
Subsidiary CN	kWh	n.a.	19 000	19 000	19 000	16 000	19 000
	CO ₂ eq (t)	n.a.	10	10	10	8	10
Subsidiary USA	kWh	85 000	85 000	85 000	120 000	130 000	74 000
	CO ₂ eq (t)	33	33	33	40	43	24
R&D (Application Laboratory Cosmetics) Subsidiary UK	kWh	n.a.	n.a.	n.a.	n.a.	n.a.	519
	CO ₂ eq (t)	n.a.	n.a.	n.a.	n.a.	n.a.	0.03
R&D (Joint Venture) RadLab, CH	kWh	45 821	40 753	45 868	53 007	55 866	57 140
	CO ₂ eq (t)	0.74	0.66	0.74	0.86	0.90	0.92

Electricity consumption and corresponding CO₂eq at headquarters and subsidiary sites from 2018 to 2023 (figures for subsidiaries in China and USA have been extrapolated).

Remarks: Subsidiary China: Figure for 2022 lower due to COVID lockdown. Subsidiary USA: Figures for 2021 and 2022 higher due to higher inventory levels.

Scope 3 – All other indirect emissions generated in up- and downstream supply chains

For this scope, we focused on our business travel, consumables and sourcing. Results are listed in the table below.

Our CO₂eq target for business travel in 2023 was 590 metric tons. We exceeded this target by 17%. The years between 2018 and 2023 were very volatile due to the COVID pandemic. 2023 is the first slightly more stable year after the COVID period. We believe we will be closer to our estimate of 590 metric tons next year. Paper consumption has been reduced by up to 90% since we initiated a consistent process of digitalisation in 2019. However, we are 5% behind our target. We are working to reduce paper consumption further. The use of plastic containers for our samples has remained consistent over the years. As the number of customers grows, we recognise that the number of samples will also increase. We are therefore looking at several ways to reduce the use of plastic. One of these is to use containers with less plastic, or where

possible with recycled content, or even to use aluminium containers, which are 100% recyclable. RAHN-Cosmetic Actives has outsourced product sampling to an external partner based in Germany, enabling shorter distribution routes, which reduces CO₂ emissions.

The number of cosmetics ingredients with > 50% bio-based content exceeded our defined target by 26% in 2023, reflecting developments and needs in the cosmetics industry. Progress in the energy curing business is slower, but moving in a similar direction. Two more bio-based products will be added to the portfolio in 2024.

Product Carbon Footprints (PCF) for RAHN-Cosmetic Actives are calculated as part of the sustainability journey and the CO₂ generated is offset through five different nature conservation projects. We exceeded our target number of PCFs for 2023 by one. Details can be found on this website: [RAHN AG – ClimatePartner-certified products \(climate-id.com\)](https://climate-id.com).

Category	KPI	Reporting entity	Unit of measurement	2018	2019	2020	2021	2022	2023
Business travel	CO ₂ emissions	RAHN-Group	CO ₂ eq metric tons	790	801	208	117	331	693
	Paper	RAHN-Group	Kilogram	4017	2200	1164	460	420	420
Consumables	Plastic		Kilogram	534	630	545	508	532	601
Sourcing	Number of products with > 50% bio-based content	EnergyCuring division	Number	4	6	6	6	6	7
		Cosmetics division	Number	279	279	279	296	272	371
	Number of PCFs for RAHN-Cosmetic Actives	Cosmetics division	Number	1	1	6	9	12	13
	Palm oil derivatives under RSPO scheme	Cosmetics division	Percentage	86	86	85	80	99	100

Overview of the chosen Scope 3 factors and emissions. PCF = Product Carbon Footprint.

Third-party warehousing, which falls under Scope 3, was evaluated in 2023. The analysis showed that the customer base for RAHN-Cosmetic Actives and cosmetic trading goods in Switzerland is rather small compared to the EU and the rest of the world that we serve. We have therefore decided to consolidate deliveries and no longer supply customers from two warehouses for the Cosmetics division as before. The logistics centre in the Netherlands has a larger network and groupage deliveries will be possible to make better use of truck capacity and shorten transport routes, which reduces CO₂ emissions. Furthermore, we commissioned an external company to carry out a comprehensive analysis of the environmental impact and greenhouse gas emissions associated with the logistics operations for our own products (Cosmetics and EnergyCuring).

We chose the well-to-wheel (WtW) approach to calculate CO₂eq (kg) per kg of product per km by road, sea or air (see table below).

CO ₂ eq kg/kg product and km	Road	Sea	Air
Inbound transportation	6.9*10 ⁻⁵	7.12*10 ⁻⁶	0.00082
Outbound transportation	6.2*10 ⁻⁵	7.05*10 ⁻⁶	0.00117

Average emission factors for inbound and outbound transportation of products in kg CO₂eq per kg of product per km by road, sea or air.

Other measures, such as the installation of water dispensers, recycling stations and the replacement of polystyrene packaging with environmentally friendly alternatives (paper), have been implemented in our day-to-day operations. Employees are regularly trained on various sustainability topics during RAHN information days.



UV/EB: A green and innovative technology

UV/EB (Ultraviolet/Electron Beam) curing technology can contribute significantly to achieving the goals outlined in the European Green Deal.

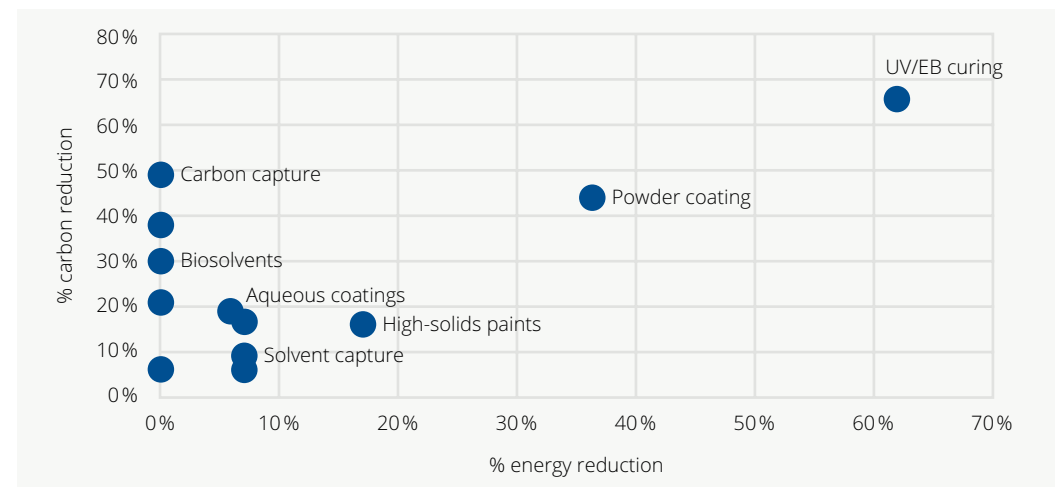
UV/EB curing is a highly energy-efficient technology compared to traditional curing methods such as thermal curing. It requires less energy to initiate and complete the curing process, resulting in lower overall energy consumption, often with savings of > 90 %. This reduction in energy usage contributes directly to lowering CO₂ emissions and aligns with the EU's focus on energy efficiency.

Furthermore, UV/EB curing processes generate little to no volatile organic compounds (VOCs) or hazardous air pollutants (HAPs) compared to solvent-based curing methods. By eliminating or significantly reducing these emissions, UV/EB technology helps improve air quality and reduces environmental impact. In addition, UV/EB curing could potentially be used in the production of prepainted metal products in the coil coating process. EB/UV curing is a game changer in this sector, where it promises to reduce energy consumption and CO₂ equivalent emissions by up to 60 %.

However, moving from conventional curing technologies to UV/EB is not a simple process, and there are several technical obstacles to be overcome before the technology can be used on a production scale in the sector. Coil coaters will need help to successfully transition to an EB/UV-based process. RAHN has over 30 years' experience in these technologies and is well-placed to support coil coaters and coating formulators in adopting this new technology.

Another way in which RAHN is improving the sustainability aspect of UV/EB curing is the integration of bio-based building blocks into oligomer and monomer development.

Incorporating bio-based products is another step towards aligning with the European Green Deal as it reduces the carbon footprint of the raw materials used. Bio-based oligomers, derived from renewable sources such as plants or waste biomass, offer a sustainable alternative to fossil-based materials, significantly lowering lifecycle greenhouse gas emissions and reliance on finite resources. Additionally, the use of bio-based oligomers meets growing consumer demands for eco-friendly products, enhancing market opportunities for our customers.



Mapping of game-changer mitigations. UV/EB curing technology is considered to be one of the most significant game changers in terms of decarbonization of the coil coating industry. Graph courtesy of the European Coil Coating Association (ECCA-webinar from 26 Jan 2023).

RAHN Cosmetics – driving sustainable development

The sourcing of raw materials, the use of water and land, deforestation, manufacturing, distribution and the end-use of cosmetic products may deplete natural resources or harm the environment. According to studies^{5,6}, more than 90 % of the environmental impact associated with the consumer sector is embedded in supply chains. In June 2023, a new regulation on deforestation-free products entered into force. The support RAHN has given to the Yayasan Rimba Raya Abadi Foundation in Borneo over the last few years has become even more important. The Cosmetics division therefore decided to continue to support the reforestation project in West Kalimantan (Borneo). This project is planting endemic tree species to restore and protect habitats for many endangered species and improve biodiversity. We are also involved in a small model farm, where we engage with farmers to promote agroforestry (“Let us make Borneo green again!”).

Whether trading goods or own-brand RAHN-Cosmetic Actives, the Cosmetics division pursues sustainable development for environmentally friendly cosmetics with purpose. Throughout these efforts it is committed to involving all stakeholders.

⁵[Starting-at-the-source-Sustainability-in-supply-chains.pdf \(mckinsey.com\)](#)

⁶[Environmental_Sustainability_Report_2019.pdf \(cosmeticseurope.eu\)](#)



One of the sites in West Kalimantan where illipe and other native trees have been planted. At the moment, 61.3 ha have been protected, which will be sequestering about 212 metric tons of carbon per year.

Trading goods

RAHN works with partners who integrate sustainability principles into their business practices. In the following report, we would like to provide an insight into the sustainability activities of some of our partners.

Sustainability goals and strategies

Our partners have developed their own sustainability goals and strategies to continuously improve their business practices.

- Ajinomoto Group: Striving for sustainability and setting targets for 2030. Our goal at the Ajinomoto Group is to contribute to the wellbeing of every individual, society as a whole and our planet through our "AminoScience" initiative. We are working towards two targets for 2030 – helping to increase life expectancy for one billion people and reducing our environmental impact by 50 %.

Environmental impact

Our supplier partners have taken various initiatives to minimise their environmental impact. These include the introduction of energy efficiency measures, the use of renewable energy, the reduction of waste and the promotion of sustainable procurement.

- BDI-BioLife Science sources 100 % of its electricity from renewables, uses water sustainably and recovers waste heat.
- Evonik focuses on the diversification of feedstocks to preserve biodiversity worldwide. It also drives innovation in process technology to achieve significant reductions in CO₂ emissions (more green chemistry) and develops biodegradable products. BEING AN INVENTOR ON SUSTAINABILITY – ECOHANCE® PROGRAM is Evonik's most innovative product range to enhance next generation alternative feedstock utilization.



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Social responsibility

Our partners live up to their social responsibilities. For example, each year, Sisterna takes the money it saves by sending out digital Christmas cards and donates it to a social project.

"Each year, Sisterna proudly contributes to a chosen foundation. In the year 2023, we enthusiastically embarked on a project to enhance our immediate work surroundings, aiming to create a more beautiful, greener and eco-friendly environment. Our vision was to transform a section of the industrial area housing the Sisterna office, making it more appealing to insects and animals. Our team constructed a branch ridge, installed insect hotels and sowed a vibrant meadow of flowers featuring native plants, all under guidance of professionals."

Mrs. Miranda Huppertz, Managing Director of Sisterna B.V.

Working with our partners has enabled RAHN to achieve its sustainability goals and drive positive change in our supply chain. We are proud to work with companies that are committed to sustainable development and contributing to a better future.

RAHN COSMETIC ACTIVES

RAHN-Cosmetic Actives – unveiling the secrets of beauty

RAHN-Cosmetic Actives started off in 1999 by interactively gathering inspiration and market feedback from our customers. Today, we are an important supplier to the cosmetic industry. We translate current demands into convenient concepts for cosmetic active ingredients. With a heartfelt passion for our brand – RAHN-Cosmetic Actives – we spread our knowledge, inventiveness and cutting-edge technologies paired with Swiss perfection and a spark of magic to every corner of the world. We know the secrets of beauty and engineer high-tech cosmetic actives that our customers trust in and find easy and enjoyable to work with. Our two new products for 2024 are the result of 24 years of experience, passion, and commitment to meet our customers' expectations without compromising nature and the environment.

[ILLUMISCIN®-GLOW](#) is an active ingredient containing Hordatine, a brand-new inhibitor of tyrosinase, and gives consumers around the world a bright and even skin complexion, regardless of their ethnicity and gender. [SCALPINIST®-SENSO](#) is an active ingredient that contains prenylated isoflavones and addresses scalp sensitivity. This cosmetic active helps to reduce sebum, rebalances disturbed microbiome, providing relief from scalp discomfort. It represents a novel and holistic approach that comprehensively addresses all the factors that contribute to sensitive scalp development, offering a complete solution to this issue.



ILLUMISCIN®-GLOW

SCALPINIST®-SENSO

Social sustainability



What matters most

Besides providing meaningful and largely self-determined jobs, continuous professional development and a healthy working environment – both in terms of ergonomics and mental health – we have identified the following elements as the most relevant for us in the context of the UN SDGs:

- Providing equal pay for equal jobs and equal opportunity for all
- Offering a flexible working environment and continuous professional development
- Financial support to disadvantaged people / institutions
- Promoting culture for a healthy society



Equality

We believe equality is about more than just gender and applies to countless aspects of human diversity. We attach great importance to equal pay for equal work. Salary structure analyses are therefore used to monitor individual gender-specific para-

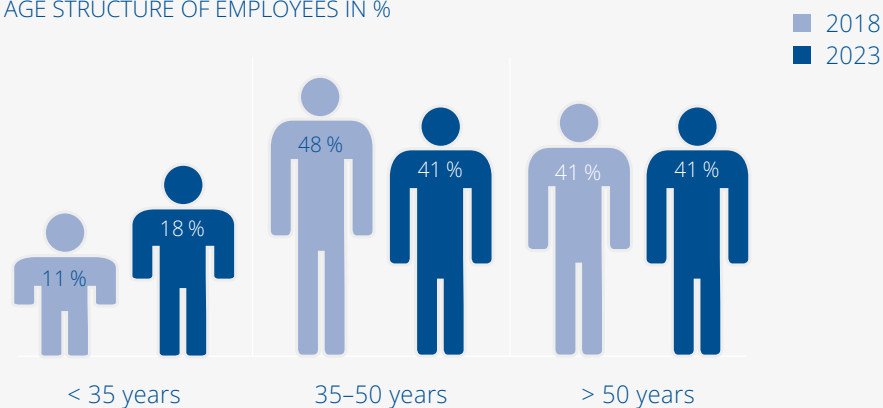
meters of remuneration. All employees are granted the usual company benefits. The same rules apply to part-time employees as to their full-time colleagues.

Where we are

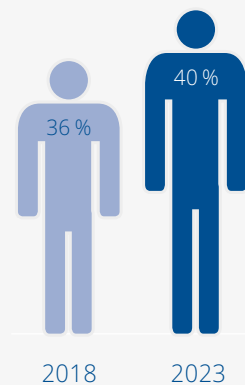
We believe we are very well advanced in the social dimension of our activities. Given the inherent uncertainty in today's business environment, our aim is to maintain the current level for many of the related KPIs. The following table shows our progress on social sustainability from 2018 to 2023.

Category	KPI	Reporting entity	Unit of measurement	2018	2019	2020	2021	2022	2023
Equal pay	Women's salary compared to that of men with comparable position, education and experience	RAHN-Group	Percentage	100	100	100	100	100	100
Equal opportunity	Age structure (< 35 / 35 - 50 / > 50 years old) in % of all employees	RAHN-Group	Percentage	11 / 48 / 41	13 / 54 / 33	10 / 52 / 38	15 / 48 / 37	16 / 47 / 37	18 / 41 / 41
	Women in upper & middle management	RAHN-Group	Percentage	36	38	34	38	42	40
Flexible working environment	Part-time employment vs. total headcount	RAHN-Group	Percentage	28	25	26	27	26	24
Education and training	Total education and training budget per employee on average	RAHN-Group	Swiss francs	1480.-	1560.-	1150.-	1020.-	1600.-	1600.-
Contribution to economically disadvantaged people	Contribution by Rahn Foundation; annual sum of the last 5 years on a rolling basis	RAHN-Group	Swiss francs	1 499 000.-	1 498 000.-	1 464 000.-	1 704 000.-	1 950 000.-	1 460 000.-

AGE STRUCTURE OF EMPLOYEES IN %



WOMEN IN A LEADERSHIP ROLE IN %



A great place to work

At RAHN, we place a big emphasis on teamwork, health and work-life balance. It is only when all these factors are in place that we can expect our teams to achieve their optimum productivity. We invest a lot in fair compensation, education, transparent information and social events. Currently, the average amount of time employees stay at RAHN exceeds nine years. Since the 1970s, all employees worldwide have participated in our profit-sharing programme, which pays out a defined percentage of each year's profits. The fact that everybody gets to take a day off on their birthday to spend time with their family is a small but important gesture. We also offer state-of-the-art work places and a variety of other benefits. For example, every employee has the option to work from home 40 % of the time, if their job allows.



Economic sustainability



What matters most

RAHN understands itself as a modern and innovative technology company that contributes to economic progress in its fields of activity. This innovation usually lies in developing and distributing more effective, easier-to-process or more sustainable performance materials and services that ultimately lead to better and safer consumer products. Every year, RAHN invests significantly in the health, safety and regulatory compliance of its products and processes. Furthermore, we play an active role in industry associations and global sustainability initiatives (for example, Responsible Care), as well as in projects with universities and other research institutes.

As an employer, we provide attractive jobs with global roles and a healthy & ergonomic working environment. As for our global sourcing activities, we strive for transparent collaboration with long-term partners and back this up with supplier audits to rule out child labour, corruption and pollution to the best of our abilities.

We see three main dimensions to our contribution to economic sustainability:

- Innovating for more resource-efficient performance materials and applications
- Providing interesting employment opportunities for ambitious individuals
- Practising responsible sourcing



Where we are

We do not set ourselves specific targets for these dimensions, but we regularly monitor relevant KPIs to assess our contribution to the UN SDGs.

Category	Dimension	Reporting entity	Unit of measurement	Result 2023
Innovation	Gross profit spent on R&D and application labs around the world	RAHN-Group	Percentage	12
Innovation	Innovation awards received and academic collaborations completed in the last 5 years	RAHN-Group	Number	27
Employment opportunities	Growth of FTE at RAHN in the last 5 years	RAHN-Group	Percentage	4
Employment opportunities	Staff with a PhD or Master's degree	RAHN-Group	Percentage	33
Responsible sourcing	Supplier audits performed in the last 3 years ⁷	RAHN-Group	Number	17

⁷ Performed by RAHN or commissioned by RAHN



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