



2023 Sustainability Report

Walraven Group

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Walraven – Building a multinational with a heart

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Introduction



Reliable partner



Towards zero emissions



Responsible solutions



People at the heart



Appendix

General disclosures

In previous years, we have included a chapter on sustainability in our Annual Report. This is the first time we are publishing a separate Sustainability Report. We are not reporting any changes in the preparation or presentation of our previous sustainability statements, and there have been no errors in prior periods. The report covers the period 01/01/2023 – 31/12/2023, consistent with the fiscal year 2023 of J. van Walraven Holding B.V. The report was not subject to external assurance and is disclosed on a voluntary basis.



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Foreword



Looking back at the past year, we proudly present our first dedicated Sustainability Report. It is our purpose to “make a sustainable difference by building a multinational with a heart”, emphasizing that our company’s commitments to our people and the planet are just as important as our economic success. We understand that being a sustainable company means recognising the importance of transparency and accountability in our operations.

As an international company, we strive for diversity in our workforce. We are proud to have team members from various nationalities and cultures and are committed to providing opportunities to people with disability. This inclusive approach contributes to our company’s success and promotes personal growth. During times of global crisis, such as the recent pandemic or political conflicts like the war between Ukraine and Russia, we prioritise the well-being of our people. We ensure they receive the support they need, and we extend our help to affected communities.

Frank Nijdam, co-CEO

Our commitment to sustainability is reflected in our product design and manufacturing processes. By using the latest technology in our production facilities and implementing smart product design, we can optimise our material consumption. This approach allows us to reduce our environmental impact while delivering innovative products and services to our customers at the same time.

In this Sustainability Report, you will find information about our achievements during the past year and our ambitions for the future. It will update you on our progress in getting ready for the Corporate Sustainability Reporting Directive (CSRD) and how we are establishing the necessary measurements and actions. We will also highlight our progress in product design and the release of our first Environmental Product Declaration (EPD). This declaration provides transparent information about the environmental impact of our products.

Together with our ‘Green Team,’ we worked hard to create awareness and a sense of commitment within our company when it comes to sustainability. This includes the intrinsic motivation to improve ourselves as well as the drive to comply with the rapidly evolving legal directives.

At Walraven, we understand that the journey towards sustainability began a long time ago, continues today, and will remain a priority for the future. We invite you to join us in our efforts to make a positive impact in the markets and environments in which we operate. Through cooperation with our stakeholders, creativity, and a commitment to our innovative culture, we can further strengthen our purpose.

Frank Nijdam
co-CEO



Introduction

About Walraven

Inspired by smart solutions from the start



Walraven is a globally active company in the building and installation industry, founded in 1942. We have always been dedicated to making the work of our customers easier, safer, and more effective. With simple, smart, durable solutions and excellent support.

In 1942, when Jan van Walraven, the great-grandfather of our current co-CEO Pelle van Walraven, was offered the chance to buy the zinc covering of a house in his village, he did not hesitate. Material was scarce during the Second World War. From the roofing material, he could make all kinds of appliances badly needed for the well-being of the people around him.

What Jan manufactured, his wife Emma sold in their shop. They were a strong team that complemented each other well: Emma's entrepreneurial spirit combined with Jan's innovative ideas. Until long after the war, it made sense to craft new products from recycled materials. What we now call sustainable has always been smart.

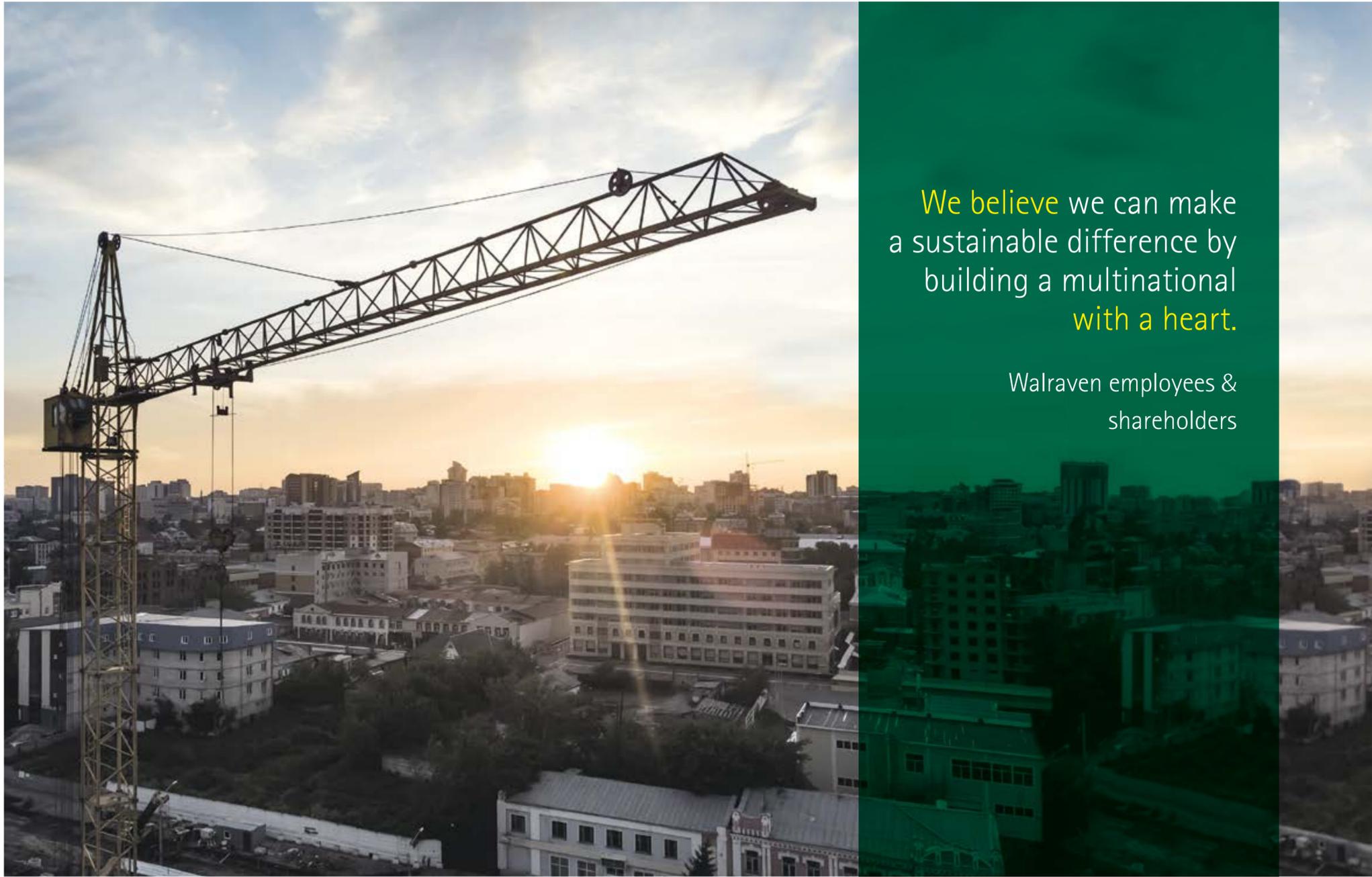
And now, more than 80 years later, we are a globally active company, still driven to develop simple, yet smart product systems to add sustainable value. With our wide product range and expert advice, we can provide complete solutions for any installation project, no matter how large or complex.



The Van Walraven family

Name	In service	Photo
1 Jan & Emma	1923-1958	1966
2 Wim	1946-1986	1984
3 Jan Hendrik	1950-1991	1996
4 Jan	1968-2013	2022
5 Pelle	1993-present	2020

Our purpose



We believe we can make a sustainable difference by building a multinational with a heart.

Walraven employees & shareholders

Being a family business, long-term thinking comes naturally to us. From an early age, we are taught to take good care of the company and its environment. We have grown enormously as a company over the past 80 years. And we are aware that we still need to learn a lot about our growing global influence. However, as with our products, it's the little things that count and add value to the big picture. We are determined to build a multinational with a heart for all people within our reach. A company that not only benefits people and the world today, but that will hopefully continue to do so for many generations to come.

Our values

Aspirational values



Entrepreneurial
leading, dynamic, proactive



Inventive
creative, smart, practical

Intrinsic values



Committed
passionate, result driven, dedicated



No-nonsense
down-to-earth, pragmatic, open



Reliable
responsible, sound, sincere

The dialogue stimulated by our values unites us

Our values play an important role in everything we do. They are the moral compass for our employees around the world. Our values are divided into our fundamental values (also called intrinsic values) and our aspirational values. As the name suggests, our fundamental values are our foundation. The strong and stable foundation on which we build. The second set of values helps us to move forward in a world that is changing at an increasingly rapid pace.

Both types of values are equally important, although there is tension between the two. Being able to have an open and transparent conversation based on our values enables us to make the right decisions.

Our promise

'The value of smart' captures how we deliver added value to all our stakeholders with our smart solutions. We connect. This is not only what our products do, but also how we treat each other. We immerse ourselves in the marketplace and listen to our people, our environment, and our customers to understand their needs. This way we can work together to create smart solutions. Solutions that make the job easy, safe, effective, and sustainable.



We are convinced that we have to adapt to an ever-changing environment, and that's why we do things **differently**.

At Walraven, **we connect** with you and the market to understand your needs.

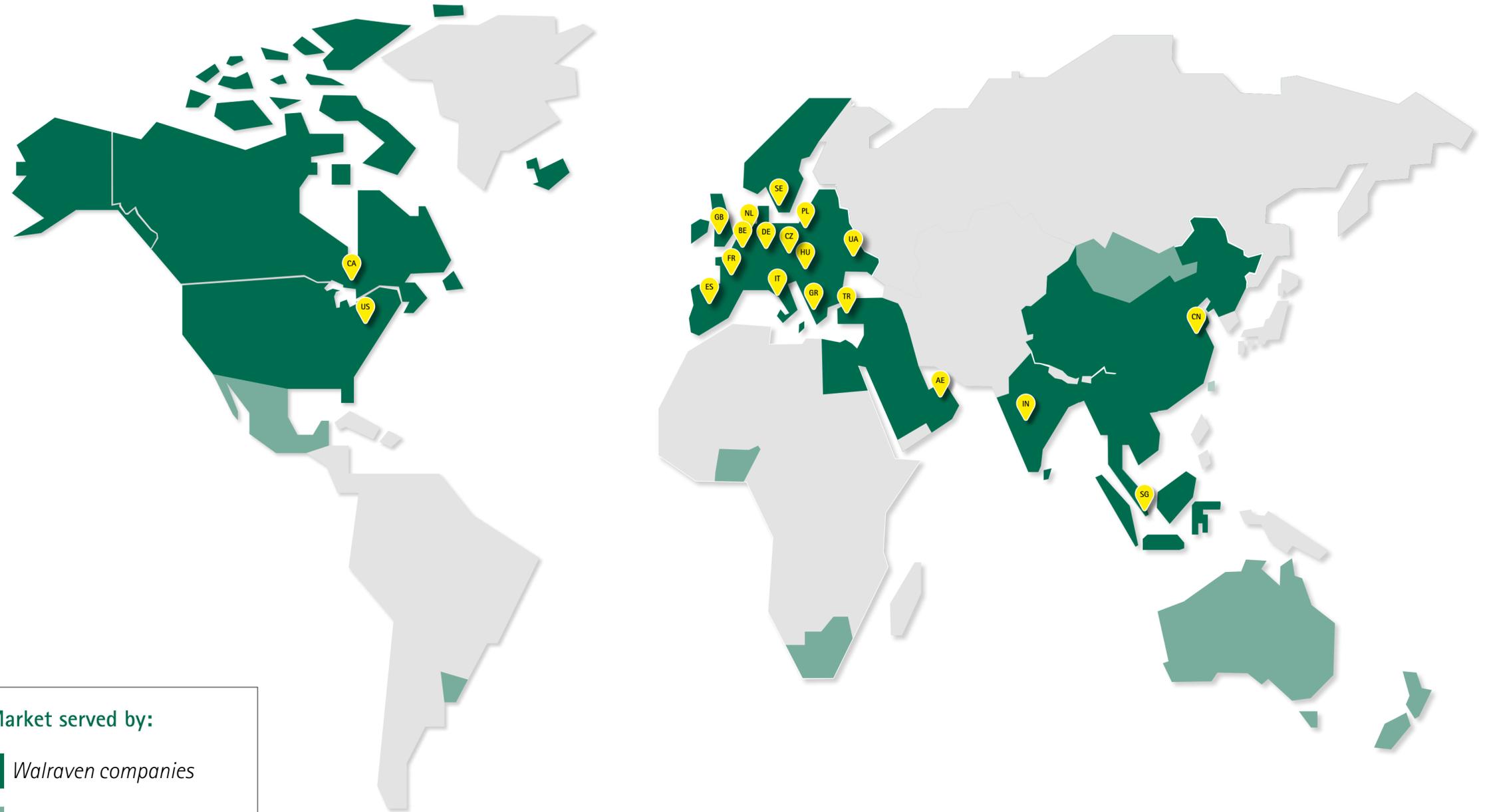
We know how important it is for even the **smallest part** to do its job properly and make your work easy, safe, effective, and **sustainable**.

We bring in our expertise to provide **smart solutions** that add value to your work every day.

Walraven. The value of smart

Walraven today

Today, 1,339 Walraven employees support our customers from offices in 20 different countries across the globe. With 14 production locations, mostly in Europe, we strive for local production close to our customers, to minimise transport movements. Our revenue in 2023 was EUR 192 million.



<ul style="list-style-type: none"> ■ 30 companies ■ 1,300+ employees ■ 20 countries 	<p>Market served by:</p> <ul style="list-style-type: none"> ■ <i>Walraven companies</i> ■ <i>Distributor</i>
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Walraven today

Total number of employees by region	2023	2022
Europe	1,106	1,097
North America	85	65
IMEA*	74	71
APAC**	48	79
Aerofoam	3	2
Holdings	23	27
Total Group	1,339	1,341

Total number of FTE by region	2023	2022
Europe	1,018	-
North America	75	-
IMEA*	74	-
APAC**	48	-
Aerofoam	3	-
Holdings	21	-
Total Group	1,239	-

Turnover per region (€ mil)	2023	2022
Europe	163	157
North America	17	16
IMEA*	6	10
APAC**	5	9
Other	1	2
Grand Total	192	194

*India, Middle East, Africa (IMEA) **Asia-Pacific (APAC)



Total number of employees by countries of origin (passport)	2023
Czech Republic	474
Netherlands	245
Germany	104
Türkiye	78
Poland	54
United Kingdom	53
Canada	48
India	41
Spain	39
China	38
United States	36
Ukraine	26
France	17
Sweden	13
Belgium	12
Philippines	8
Hungary	7
Singapore	7
Bangladesh	6
Pakistan	5

Total number of employees by countries of origin (passport)	2023
Denmark	4
Egypt	3
Nepal	3
Jordan	2
Lithuania	2
Malaysia	2
Austria	1
Brazil	1
Chile	1
Ghana	1
Italy	1
Romania	1
Sierra Leone	1
Sudan	1
Switzerland	1
UAE	1
Uganda	1
Venezuela	1
Total Employees Group	1,339



Partners



Our product groups



Pipe clamps



Rail systems



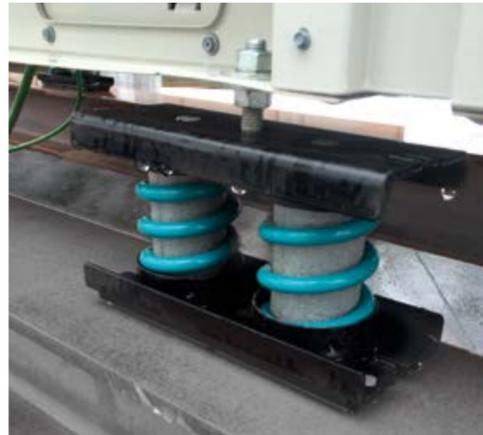
Anchors and fasteners



Fire protection solutions



Pipe insulation solutions



Anti-vibration solutions



Rooftop solutions

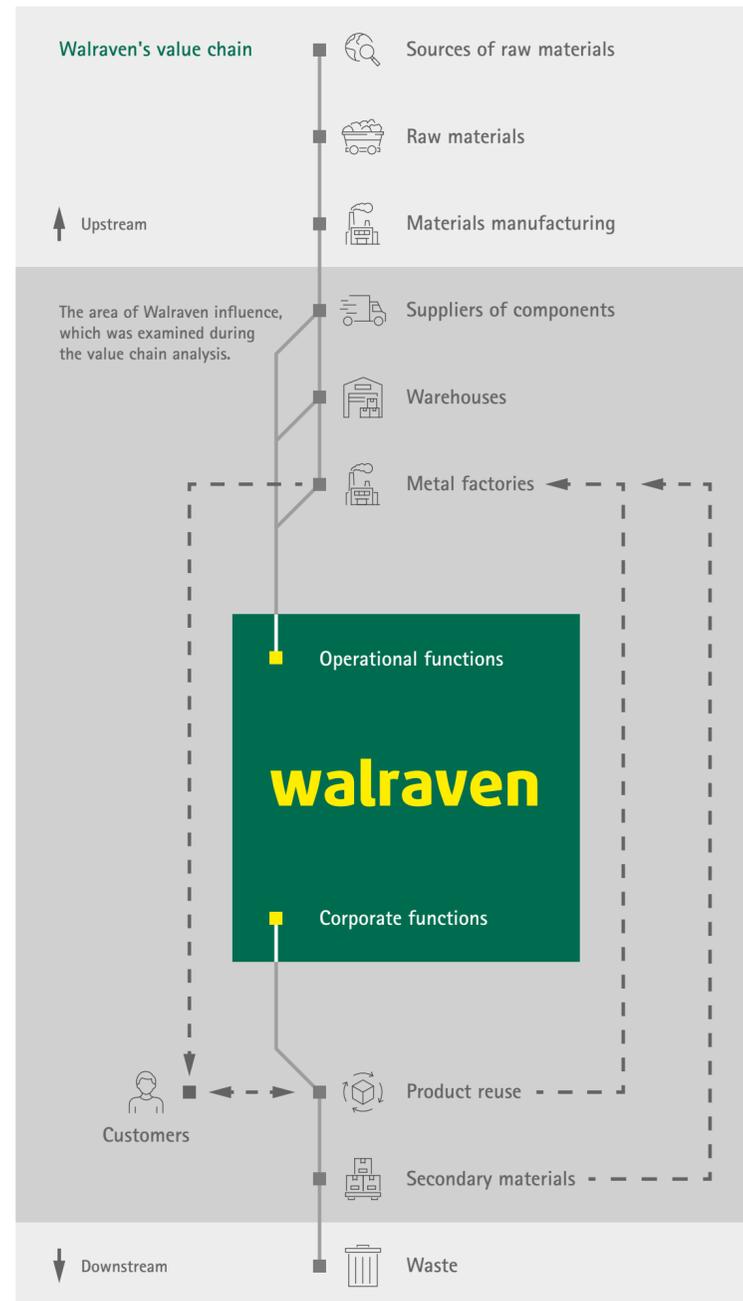


Ventilation support



Seismic bracing

Walraven's value chain



Upstream

Our upstream activities are concentrated on:

- Production of raw materials (e.g. steel, rubber, polypropylene, and polyamide 6)
- Production of steel and plastic components
- Supply and transport movements of these components and half parts

A small selection of our incoming goods are finished goods (e.g. screws and bolts, anchors, consumables, etc.).

As for packaging materials, we mainly use (FSC certified) paper and cardboard, as well as some plastics to protect our products. The most important material for Walraven is steel. Our sustainability work, as well as our double materiality assessment, is highly focused on steel, as this is where we can make our biggest positive impacts.



In-house testing (fire)

Our operations are at the core of our organisation. As Walraven Group, we have 30 entities spread out across the globe and a joint venture with Hira Industries in the United Arab Emirates. We develop our products in-house, so we choose our suppliers and set our own specifications. Before starting any new project, we consider the complete installation process, including the installer, wholesaler, specifier, owner, etc. This gives us an excellent starting point for sustainability work as we control the entire process from concept to manufacturing to sales.

We are proud to have our own:

- Production facilities for cold forming, surface protection, plastics, elastomers, etc.
- In-house capabilities for testing (fire, salt spray, strength, etc.)
- In-house buyers for selecting our packaging materials in collaboration with our suppliers
- Coordination of sourcing, customer service, product delivery, logistics, supply chain, warehousing, HR, legal, marketing, quality control and assurance, sustainability, etc.

Downstream

Our customers are the most important players in our downstream activities. These activities involve the transportation of our products to wholesalers, installers, and contractors. As part of our Scope 3 screening, we calculated our upstream and downstream transport emissions. Reducing our transport footprint is one of our strategic goals for 2027. We have taken several steps to achieve this goal, including a localisation strategy. Where possible, we intend to produce and store our products close to the places where they are sold. We are also improving the efficiency of our logistics and making efforts to reduce our environmental footprint caused by transport movements.



In-house testing (salt spray)

Changing world

Challenges at Walraven Ukraine



Walraven Ukraine was established in 2008 and has been a part of the Walraven Group for 16 years. Despite facing political and economic challenges, the company had been developing well until the invasion of Russia started. As a result, some employees had to flee the country with their families or serve in the military, making it difficult to work for several months. Additionally, Walraven's Czech, and Polish companies got directly involved and helped their colleagues and families who left their country.

At Suchánek & Walraven, in the Czech Republic, several volunteers collected clothes, organised accommodation for Ukrainian refugees, and allowed them to work at their factories or offices. This situation had a significant impact on the Walraven Group from both a business and human perspective. In 2022 and 2023, we launched the "WE take action" initiative, enabling people to collect money, clothes, toys, and other essential goods to send to both locations. A few pallets were sent to the Czech Republic and Poland every week to help the refugees.

The war was far from over, but after only being closed for one month, the company reopened, and the team in Ukraine resumed business operations. They were determined not to let the war bring them down. Despite delivery difficulties, they kept their good spirit, positively impacting everyone involved.

Single Materiality Assessment 2023

In March 2023, we completed a single materiality assessment. It served as preparation for the double materiality assessment required by the Corporate Sustainability Reporting Directive (CSRD). Our initial steps included identifying stakeholders (both internal and external) and topics based on the ESRS (European Sustainability Reporting Standards), as well as topics chosen by Walraven. The ESRS standards were developed by EFRAG (European Financial Reporting Advisory Group).

We followed these steps:

- Elaborating on topics and creating a long list
- Sending out a questionnaire based on the long list and mapping stakeholder priorities through the analysis of the questionnaire
- For each topic on the long list, stakeholders were asked to rate the topic's impact on the company on a scale of 1 to 5, with 5 indicating a high impact and 1 indicating a low impact.

Responses to the questionnaire:

Stakeholders	Internal/ External	Completed #	Completed %
Board	internal	3	100%
Supervisory Board	external	4	100%
STAK (Certificate holders)	internal	4	80%
Group management	internal	8	89%
General management	internal	9	69%
Supplier	external	4	80%
Wholesale	external	3	30%
Installer	external	2	17%
Government	external	2	67%

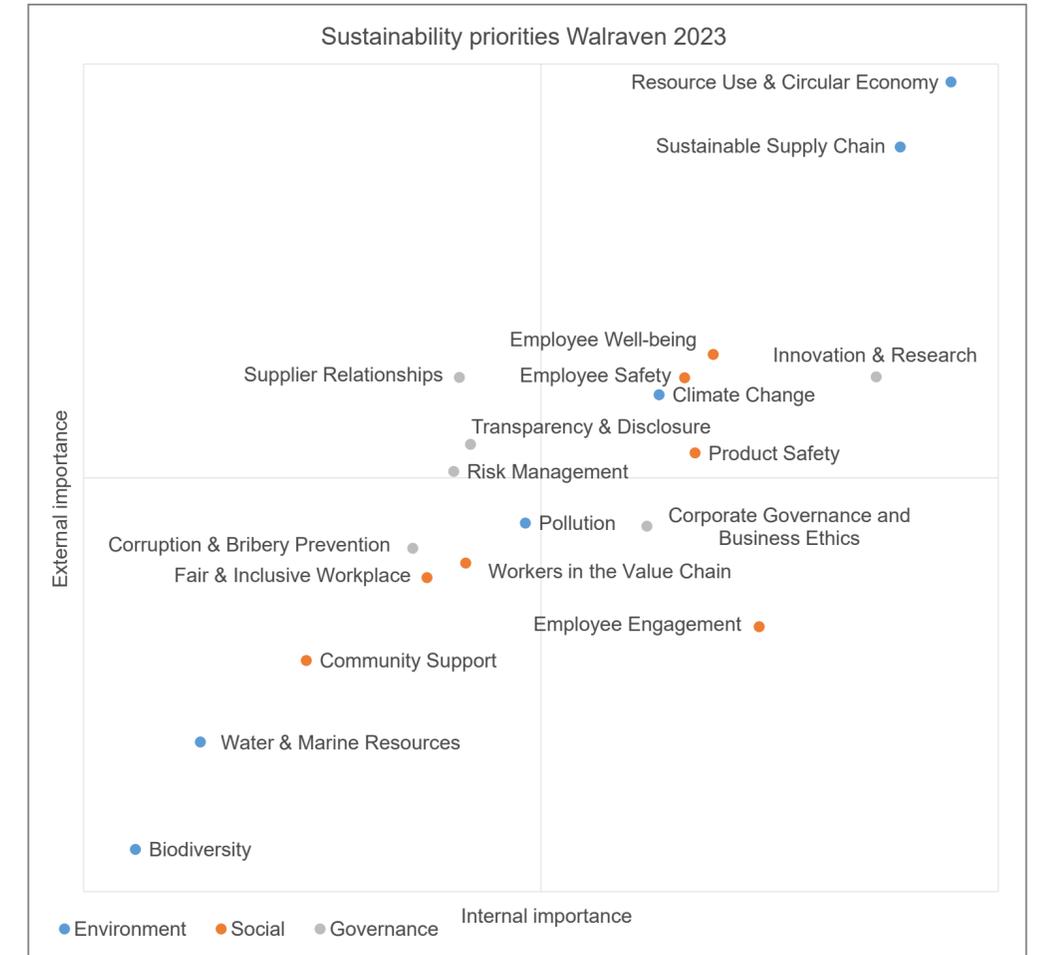
Outcomes

The questionnaire quickly made clear that stakeholders saw all topics as impactful because scores of 1 and 2 were rare. The topics that were seen as the most impactful were **Resource Use & Circular Economy**, and **Sustainable Supply Chain**. Our stakeholders believe Walraven can make the most significant impact by focusing mainly on these two.

The stakeholders also mentioned social topics such as **Employee Involvement, Safety, and Well-being** as impactful. Yet, the stakeholders believe these topics are already a high priority within Walraven. Additionally, stakeholders often mention the topic of Innovation in combination with Climate Change, Resource Use & Circular Economy, and Sustainable Supply Chain. Based on these data, we created a scatter diagram that maps the material topics according to the surveyed Walraven stakeholders.

Based on the Single Materiality Assessment 2023, these are the main topics that are included in this Sustainability Report:

1. Governance (including Business Ethics, Risk Management, Transparency, and Disclosure)
2. Climate Change
3. Sustainable Supply Chain (including Supplier Relationships)
4. Resource Use & Circular Economy
5. Innovation & Research (including Product Safety – part of ESRS topic Consumers and End-users)
6. Own Workforce (including Employee Well-being and Employee Safety)
7. Workers in the Value Chain



Double Materiality Assessment 2023–2024

In the fall of 2023, we continued working on material topics based on new insights. We conducted further (desk) research, did in-depth interviews with stakeholders, and sessions with the Sustainability Steering Team, Executive Board, and Supervisory Board to review the material topics. We also considered the financial impact, both inward and outward. As a result, we conduct our first double materiality assessment in 2024. We will present the outcome of the double materiality assessment 2023–2024 in the Sustainability Report 2024.



Our focus areas

Our overall goal is 'Sustainable value creation!'

We continuously develop and improve ourselves to make a sustainable difference from a human, economic, and environmental perspective. To have a healthy organisation for current and future generations.

We are committed to contributing to a safe, sustainable, and circular installation industry. To achieve this, we have chosen the following long-term focus areas:

1. **Reliable partner**
2. **Towards zero emissions**
3. **Responsible solutions**
4. **People at the heart**

In 2023 we have built further on our foundation.

We have set Key Performance Indicators, provided data, and implemented policies and processes. This will help our people make the right decisions in our sustainability journey.

Activities in 2023:

- To support the development of a responsible product portfolio, we started to measure our products' footprint through life cycle assessments. We also enhanced local production, implemented challenging improvement processes, and developed more external partnerships around sustainability.
- We measured our greenhouse gas emissions (Scopes 1, 2, and 3 for 2022), as well as Scope 1 and 2 in 2023. This will serve as a basis for making plans to reduce our footprint. Our initial focus lies on reducing our footprint in Scope 1 and 2, with a longer-term planning for Scope 3 reductions.
- We want to create a diverse and inclusive environment for everyone within our reach. This year we have prioritised the personal development of our workforce, fair treatment of our personnel, social dialogue, a safe and healthy workplace, and social activities. Additionally, we have begun to investigate the working conditions within our supply base.
- We have built on our position as a reliable company by including non-financial reporting in our decision-making processes. We also started to engage on sustainability matters with stakeholders. Finally, we executed an internal awareness campaign around sustainability.

Ambition for 2027:

We made a list of actions to work on our focus areas.

It will help us realise our ambitions for 2027:

- Lower our environmental footprint (company, product, and transport)
- Lower the use of new materials in products and increase the reuse of materials
- Increase the level of human centred designed products
- Increase our engagement with communities, networks, and customers
- Increase our investment in personal development
- Improve conditions on health, safety, inclusion, and well-being
- Improve the workplace conditions in the supply chain
- Increase the importance of sustainability in our decision-making processes and operations
- Focus on more data-driven developments
- Increase effective communication around sustainability





Reliable partner

Governance and Business Ethics

We strongly prioritise conducting business ethically and responsibly. This principle is reflected in our Code of Conduct, Financial Code of Ethics, and participation in the United Nations Sustainable Development Goals. We firmly believe that having excellent governance practices helps us manage risks effectively, take advantage of business opportunities, and provide value to our stakeholders such as owners, employees, customers, suppliers, and the communities where our facilities are located.

How we are organised

We have a Supervisory Board responsible for overseeing the management team and the company's overall course of affairs. The Supervisory Board acts in the interests of Walraven and considers the relevant interests of stakeholders. It supervises and advises our Executive Board (co-CEOs and CFO) in managing the day-to-day affairs of the company and setting the direction of the company's business. Major management decisions and strategy are discussed with and approved by the Supervisory Board.

Board Diversity

Both the Supervisory and Executive Board of our organisation strongly believe in diversity and consider it an important characteristic of the company and its management. Currently, the Executive and Supervisory Board have a total of seven members, out of which five are male and two are female.

Sustainability at board level

Our Supervisory and Executive Board are committed to sustainability and oversee the company's sustainability profile. At each regularly scheduled Supervisory Board meeting, the Executive Board reports on key sustainability topics and initiatives. At least once a year, Board members participate in a deep dive on sustainability strategy and actions. During the annual strategy meeting, the Board focuses on the company's progress, programs, and strategy related to sustainability goals.

Sustainability at management level

At Walraven, sustainability is a strategic focus area that our co-CEOs and CFO oversee at the Executive management level. The Group Director of People, Organisation, and Sustainability provides monthly reports and discusses key topics and initiatives with members of the Group Management Team (GMT). These topics and initiatives are mostly initiated by the Sustainability Strategy Steering Team (SST). The SST is composed of senior management responsible for various business areas. The team meets regularly to review strategies, policies, and risks related to sustainability topics. Since sustainability matters impact and are impacted by all our operations, each function plays a role in identifying relevant opportunities, managing associated risks, and contributing to our overall sustainability program.



Governance and Business Ethics

Sustainability Governance Team

We established a sustainability governance team to secure and accelerate our sustainable improvement. The team is supported by a sustainability organisational matrix to execute the plan.

To drive the sustainability transition within Walraven, we have a dedicated team to:

- Ensure governance and compliance
- Develop and implement sustainability strategy
- Maintain focus
- Embed sustainability in our organisation
- Inspire, motivate, and enable sustainability ambassadors throughout the company

Their role is to Lead, Shape, Guide, and Support. The governance team consists of the STAK (representation of our certificate holders) & Supervisory Board (Supervise), the Group Management Team (Review), the Group Sustainability Manager (Manage) and the Sustainability Steering Team (Decide).



Sustainability in business processes

Next to the Sustainability Governance Team, we are incorporating sustainability into our regular business processes across the organisation. This includes our decision-making processes. Next to financial criteria, we consider risks and impacts from an environmental and human-friendly perspective, both positive and negative. In 2023, we have also launched a Sustainability Ambassadors Club: The Green Team. Team members are inspiring each other with best practices and lessons learned throughout the Walraven Group on a more informal level.

Sustainability (environmental and social performance) is also part of the variable compensation for managers.

Governance and Business Ethics

Policies regarding Fraud prevention, Compliance, Safety and Anti-Corruption

We are committed to complying with applicable laws and regulations. As part of our sustainability commitment, we want to be even more outspoken about our labour and human rights standards and business ethics. Our legal and compliance colleagues ensure that all our business is conducted legally, ethically, and compliantly. Additionally, we have implemented several group-wide policies that apply to all Walraven employees and suppliers.



Code of Conduct

In 2021, we introduced a Group Code of Conduct applicable to all employees within Walraven and based on international standards. Our Code of Conduct sets out our expectations on respecting fellow employees, human rights, anti-corruption or bribery, conflicts of interest, legal compliance, and fraud prevention. We do not allow any kind of discrimination related to age, gender, nationality, social status, religion, physical or mental disability, political or other opinions, sexual orientation, or any other factor.

■ Code of Conduct video

An awareness video about the Group Code of Conduct was released during the second half of 2023. Employees can familiarise themselves with these guidelines by watching the video in which several colleagues explain what the most important topics in the policy are about. This video is available in eight different languages.

■ Group HR Matters site

We also released a Group HR Matters SharePoint site, where the policies are available to all employees globally.

■ Information security awareness

In addition, an extensive information security awareness campaign ran throughout the year, contributing to embedding the different Code of Conduct directives, and creating a safer environment.

Supplier Code of Conduct

Our Supplier Code of Conduct outlines our health, safety, environmental, social, governance and ethical expectations for those with whom we do business.

Financial Code of Ethics

The company's co-CEOs and CFO are responsible for full, fair, accurate, timely, and understandable disclosure in the company's Annual Reports. Accordingly, in addition to the Code of Conduct, these officers must also comply with our Financial Code of Ethics.

Mechanisms for concerns about ethics

We developed our Group Whistleblowing policy to report any malpractice or ethics issues. The Whistleblowing policy is designed to enable employees across the whole Walraven Group to raise concerns internally at a high level and to disclose information that the individual believes shows malpractice or irregularity. In 2023, no report was received.

Reporting on breaches

In 2023, Walraven had no legal actions pending or completed regarding anti-competitive behaviour, violations of antitrust, or monopoly legislation in which the company was identified as a participant.

Digital responsibility

We process several types of information in our IT systems, and we take significant actions to keep that information safe from unauthorised access and usage. The information includes our internal business data, but also other data that we process on behalf of our customers, our employees, our partners, or other stakeholders.

It is our responsibility to process and manage all data securely. To reach that objective, we follow best practices in information security and privacy. Within the Information Security Management system (ISM), we conduct several security audits, analyse risks, train employees, prepare policies and guidelines, and we install technical solutions to protect information processing. The governance is being monitored by the Walraven Information Security Committee (ISC), which consists of our: Chief Financial Officer (CFO), Legal department, IT & Digitalisation, Enterprise Risk Management, and People & Organisation. From an information security perspective, sustainability means investing time, attention, and capital in a way we mitigate risk, minimise costs, and maximise effectiveness, both now and in the future.

We do this by embedding sustainability in the three pillars of information security: people, processes, and technology.



Sustainability with people

As a part of our Information Security System, we have implemented a security awareness program. Our program focuses on providing our employees with the necessary skills to identify potential information security threats. We educate them on the latest security tactics and tools to report them. In addition, we created a security awareness ambassador group to support the program's implementation. A well-trained and engaged workforce is the foundation for sustainable information security.

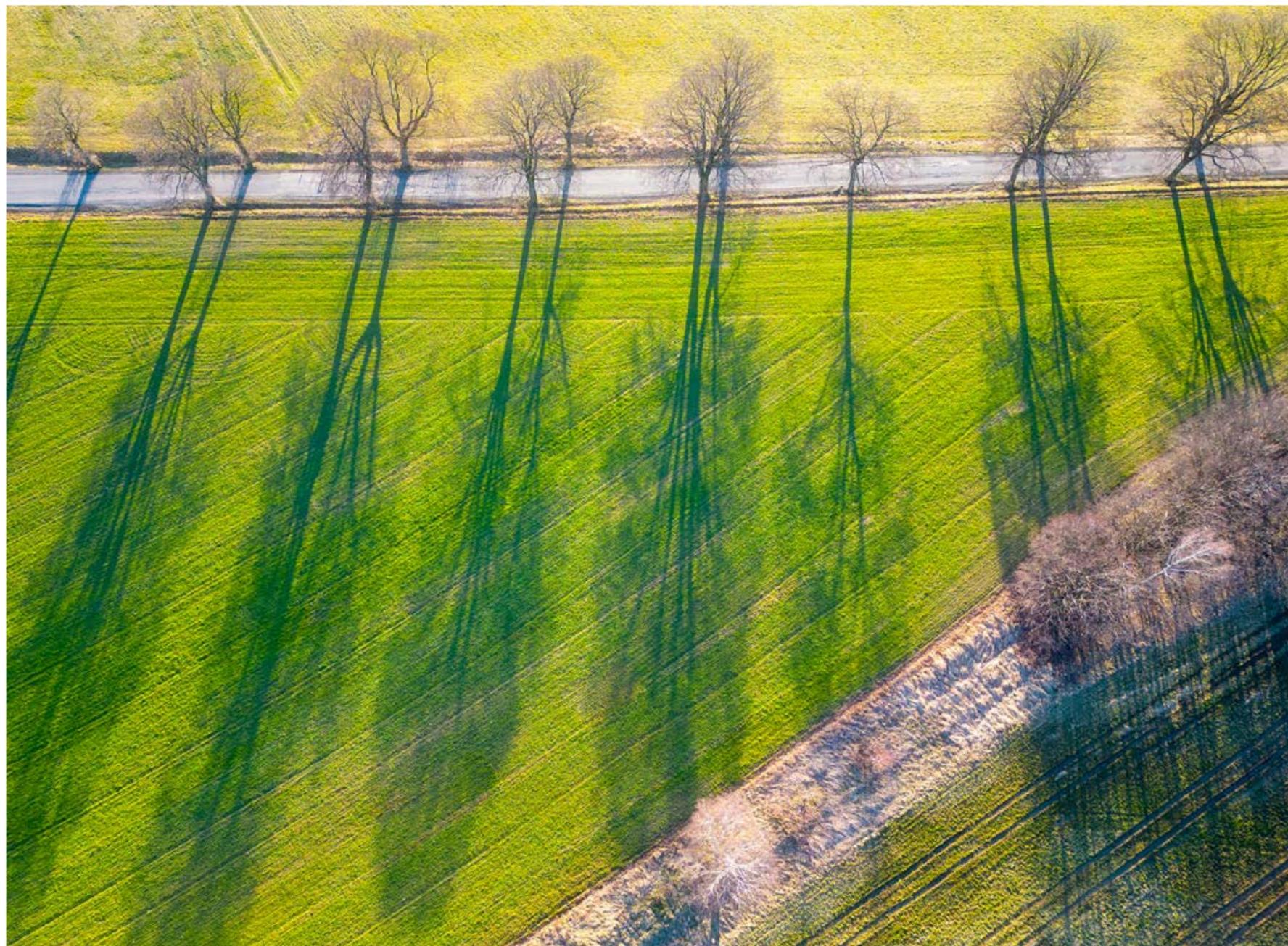
Sustainability in processes

We have established two key themes, 'Organisation and Technology Enablement' and 'Optimise', as part of our 'Digitalise our world' roadmap. We will work closely with the Walraven Business Process Owners (BPO) and Business Process Coordinators (BPC) to improve process alignment throughout the organisation and to automate standard processes. We aim to make IT processes more efficient and effective, with a continuous focus on information security.

Sustainability in technology

Information security and environmental sustainability are often interconnected, particularly in terms of the technology we choose. At Walraven, we prefer collaborating with suppliers who uphold environmental, social, and governance missions. For instance, we prefer cloud providers that use renewable and solar energy to power their data centres and distribute the produced heat back to the community. Moreover, we partner with companies that use recycling processes to manage e-waste, including IT equipment, laptops, and other gadgets that have reached the end of life.

EcoVadis



At the end of 2021, we participated in an EcoVadis audit for the second time. The external recognition of our sustainability improvements increased by 17 points, an impressive 60% increase! The audit also helped us identify areas to improve and act accordingly. As a result, we defined our focus areas and established a sustainability roadmap describing upcoming actions, activities, and projects. In 2023, we underwent our third EcoVadis assessment. This time, we received 47/100 points, and our sustainability performance was rated 'good'!

The EcoVadis logo, featuring the word "ecovadis" in a lowercase, sans-serif font. The letter "v" is stylized with a green leaf-like shape integrated into its top right corner.



Towards zero emissions

Climate Change

The construction industry is considered one of the most polluting industries in the world. According to the World Green Building Council, buildings are responsible for 39% of global energy related carbon emissions. [\[Link\]](#)*1 Even though the majority (28%) of these carbon emissions are a result of energy needed to heat, cool and power, the World Green Building Council estimates that the remaining 11% can be ascribed to material usage and construction. Steel, the material we use the most, plays a significant role. The production process is highly energy-intensive, mainly due to coal production. A transition is needed to increase the use of alternative fuels such as green hydrogen and electricity and the use of reused and recycled steel. Walraven has the ambition to help combat climate change in line with the Paris Agreement. Reducing greenhouse gas emissions is also considered a material topic by our internal and external stakeholders. Later in the report, you will find several examples of our products and solutions that include sustainability in the design process.

The current impact of Walraven

To monitor our progress and develop targets and action plans, we started to assess our current impact on climate change. The Greenhouse Gas Protocol divides greenhouse gas emissions into 3 'Scopes':

Scope 1

Direct emissions from owned or controlled sources

Scope 2

Indirect emissions from the generation of purchased electricity, steam, heating, and cooling

Scope 3

All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

In this section, we present the results of our Scope 1, 2 assessments on 2022 and 2023 and Scope 3 screenings on 2022. The results of our Scope 3 screening on 2023 will be published in our next Sustainability Report. The methodology used for these assessments and screenings has been the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. The findings are retrieved from the Walraven GHG Assessment Report 2022 and 2023 from Nexio Projects, based on Walraven data.

Total GHG (greenhouse gas) Emissions	2022 (tCO ₂ e)
Scope 1 GHG Emissions	
Gross Scope 1 GHG Emissions	2,299.79
Scope 2 GHG Emissions	
Gross Market-based Scope 2 GHG Emissions	2,170.27
Gross Location-based Scope 2 GHG Emissions	3,263.57
Scope 3 GHG Emissions	
Cat 1. Purchased goods and services	60,901.82
Cat 2. Capital goods	3,037.13
Cat 3. Fuel and energy related activities	1,492.76
Cat 4. Upstream transportation and distribution	5,005.90
Cat 5. Waste generated in operations	561.49
Cat 6. Business travel	571.64
Cat 7. Employee commuting	697.75
Cat 9. Downstream transportation and distribution	4,437.46
Cat 12. End-of-life treatment of sold products	4,111.15
Total Gross Scope 3 GHG Emissions	80,817.10
Total GHG Emissions	
Total Market-based GHG Emissions	85,287.15
Total Location-based GHG Emissions	86,380.45

*1: <https://worldgbc.org/article/new-report-the-building-and-construction-sector-can-reach-net-zero-carbon-emissions-by-2050/>

Climate Change

Scope	Emissions 2023 (tCO ₂ e)	% of Total	Emissions 2022 (tCO ₂ e)	% of Total
Scope 1 Emissions	2,017.90	48.29%	2,299.79	51.45%
Scope 2 Emissions (Market-based)	2,161.16	51.71%	2,170.27	48.55%
Scope 2 Emissions (Location-based)	3,038.19		3,263.57	
Total Emissions (incl. Scope 2 Market-based)	4,179.06	100%	4,470.06	100%

Difference Location-based and Market-based:

For Scope 2 emissions, the distinction between Location-based and Market-based emissions was made. The Location-based method reflects the average emissions intensity of grids of which the electricity is consumed (using mostly national grid-average emission factors). On the other hand, the Market-based approach reflects emissions from the electricity the companies are directly consuming (using emission factors from contractual instruments or publicly disclosed data from the electricity supplier).



Our Actions

The Scope 1 and 2 assessments and Scope 3 screening carried out between 2022 and early 2024 resulted in a hotspot analysis of our emissions. Based on the results, we will create an emissions reduction plan. Our transition plan for climate change mitigation will consider the horizon goal of 2050 for net zero emissions, aligned with the Paris Agreement.

We will also set further intermediate targets and develop realistic action plans. Another topic to explore further is climate change adaptation, based on climate scenarios. We will expand our Environmental Product Declarations in our product and solutions portfolio. (see chapter 'Responsible solutions').

For more details on our current impact, see the Appendix.

Our Supply Base

A global supply base

As a manufacturer with a worldwide reach, we depend on the performance of our global supply base. We source production materials, finished products, and services from various vendors, with finished products accounting for 58% and production materials accounting for 42% of our externally sourced raw materials. However, the current environment, marked by a global pandemic and the war in Ukraine, has increased the risk of material availability and pricing. We are making the necessary efforts to ensure product availability and quality at the most optimal price. Sustainability, including social performance and business ethics, is becoming increasingly crucial in our supplier selection and evaluation.

Risks and opportunities in our supply base

Steel is a finite material resource, the use of which leads to high greenhouse gas emissions. The mining and production of steel are connected to contamination and pollution of soil, water, and air in countries rich and poor. However, steel is also considered a durable material and is already being recycled on a widespread scale. The industry has enormous potential to become more sustainable. Walraven is eager to contribute.

Supply chain as major contributor for sustainability

As a starting point to set future goals we have identified our current GHG emissions. Based on our 2022 Scope 3 screening, 75% of our Scope 3 greenhouse gas emissions are a result of our purchased materials and services. Therefore, we plan to align ourselves with our primary vendors by sharing our ambition and commitments to reduce our Scope 3 emissions. Our priority is to work with suppliers in the steel, plastics, and chemicals categories to develop products and processes that can help us reduce our emissions.

Supply base utilisation

We purchase raw materials and components from 128 suppliers situated in 21 countries. We constantly strive to select the best suppliers that can support our strategy. Our European Sourcing and Purchasing organisation manages most of our spending centrally. We aim to optimise and rationalise our supply base to achieve global synergies, minimise risks, and reduce costs.

Steel commodity represents most of our purchase volume. We source most of our steel from suppliers located near our manufacturing facilities, reducing our environmental impact due to transport movements. Some of our suppliers operate in higher-risk countries, mainly from environmental and social perspectives. We rely on suppliers based in China for several categories due to their specialised expertise. We purchase most of our China-sourced spending from two partners with whom we have a long-standing relationship.



Number of suppliers per country

Country	#
Germany	30
Netherlands	20
Czech Republic	15
United Kingdom	10
China	9
Poland	8
Spain	8
Belgium	5
Türkiye	8
Italy	3
Austria	2
Other	10

Supplier spend per country Amount €

Country	Amount €
Germany	21,636,732
China	12,822,912
Czech Republic	12,524,571
United Kingdom	5,681,827
Canada	5,300,000
Türkiye	4,630,234
Poland	2,859,211
Switzerland	2,210,029
Netherlands	2,189,018
Other	7,118,187

Hira Walraven

Joining forces to build community value into every project

Hira Walraven is a joint venture between Walraven Group and Hira Group based in Dubai, United Arab Emirates. We have our own factory and office in Dubai and are in the process of building a new factory in India. This expansion will help create more job opportunities in the local communities, by spreading our geographic diversification.



Reducing energy consumption

We have adopted solar power as our sole energy source to contribute to the energy transition. Our solar-powered factory is dedicated to reducing carbon emissions.

Preparing for movements of the earth

Our primary objective is to provide modern installation techniques that reduce seismic impact and control vibrations, ensuring a long service life of climate units and other MEP installations. Our products minimise damage during seismic events and provide extra rigidity with easy assembly features.

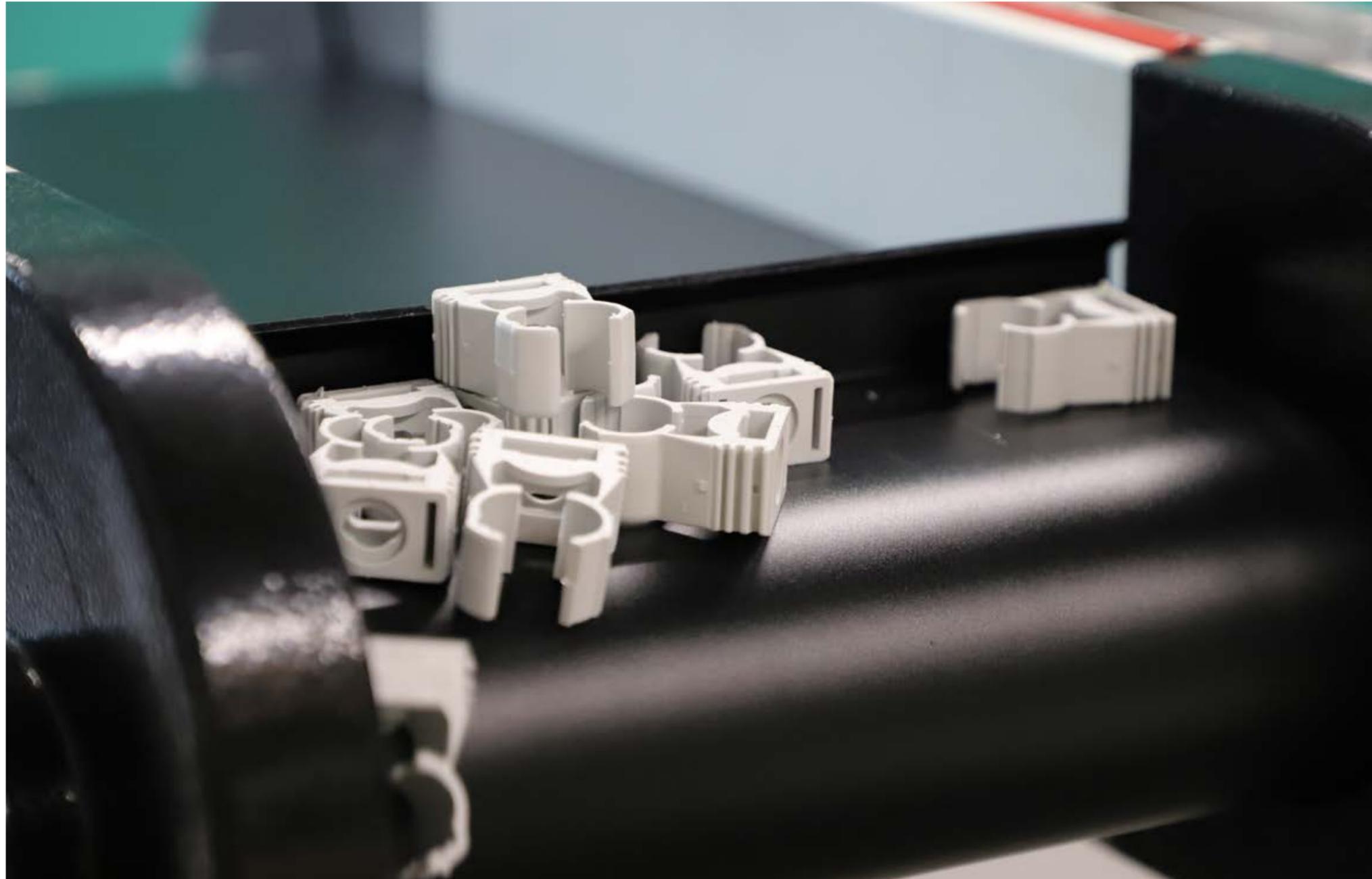
Adapting to changing construction needs

With the progress in construction methods, it has become evident that the space available for HVAC services is decreasing. This requires greater flexibility in installation, reusability, and faster construction processes. We continuously improve our product components, and we offer the opportunity to pre-assemble our products within a modular support system. This allows us to maintain control throughout the entire process, from production to installation, to ensure that our products exceed quality and reliability standards. Thanks to the BIS UltraProtect® 1000 anti-corrosion solution, our integrated solutions require minimal maintenance.

Educating our customers

To empower our customers, we have initiated several education platforms, like webinars and a dedicated Diamond Walraven app. Installers can scroll through our modular support systems, benefit from our engineering services, watch training videos, and chat with our executives. These training sessions are important, as they help our customers to correctly install our products, enabling them to leverage our solutions effectively, resulting in reduced labour costs and quicker installation times, as well as safer working conditions.

Creating positive transformations in production



We are committed to using less energy in the production and transportation of our products. To do this we, are using green energy sources, LED lights and solar panels in many of our factories.

By producing as close as possible to our customers, we save energy from transportation. We also care about our workers and make our production processes as safe and comfortable as possible for them. Our production facility in the United Kingdom complies with ISO 14001 (environmental management standard) and ISO 45001 (health and safety standard). Our production facility in Spain has an ISO 14001 certificate.

Highlights from our Manufacturing Plants



In addition to meeting legal requirements and global standards regarding sustainability, our local manufacturing plants have taken steps to benefit the environment and society. They have also supported our ongoing actions on a global scale, such as the greenhouse gas calculations and the Environmental Product Declarations.

Here are some highlights of 2023:

United Kingdom:

- Attained our ISO 14001 accreditation
- Maintained our ISO 45001 accreditation
- Installed solar panels on the roof (phase 1)
- Changed 50% of remaining areas in the building over from non-LED to LED lighting (part 1 complete in 2023, part 2 due in 2024)
- Renegotiated our energy contract - previously using 80% green energy, now using 100% renewable energy
- Switched 2 cars from hybrid to fully electric, and 2 cars for new roles also sourced as fully electric (all cars are now hybrid or electric)
- Plastic packaging e.g. pallet film wrap, pallet tops and tape and Britclips® bag packaging are all now sourced with a minimum of 30% recycled plastic
- Continued sponsorship of the local community owned football club, Banbury United
- Various charity fundraising events and charity donations resulting in over £2,700 donated to local charities, and food boxes delivered to the local foodbank
- Staff completed 'Conquerors Challenges' throughout the year where they ran, walked, and cycled 1,340 miles (2,156 km) over 5 different virtual routes, which resulted in 125 trees being planted in honour of their efforts



Spain:

- Maintained ISO 14001 accreditation
- A tracking of transports to Walraven in the Netherlands has been implemented
- Shipments are diverted via train
- Closed system cooling resulted in a minimum annual water consumption
- Use of lubricating, cutting, and drilling products with an ecological label
- Procurement of machines with efficient class I motors
- Air leakage improvement plan in all machines

Türkiye:

- Continuous reductions in waste and water usage

China:

- Cancellation of the use of 1,800m² external warehouse. Stock is stored in Changshu plant

Canada:

- Replaced the manufacturing area lighting to energy efficient LED lighting
- Reduced trucking frequency to platers to 2 weeks from 1 week

Highlights from our Manufacturing Plants



Czech Republic:

Suchánek & Walraven Čistá:

- Lights exchange-527 new LED lights replaced 599 old lights

Suchánek & Walraven Horka:

- Warehouse-75 new LED lights replaced 97 old lights
- Waste heat recuperation from laser to warehouse

Suchánek & Walraven Borovnice:

- Night lighting reduced by 90%
- Coils packaging in plastic foil reduction-950 kg of plastic foils per year

Suchánek & Walraven Assembly:

- LED lights exchange for whole company (45 new LED lights replaced 45 old lights)

United States:

- Changed approximately 80% of lighting to LED
- Waste separation

The Netherlands:

- New lighting in the production area (old: 57 TL containers / New: 30 LED containers)
- New lighting in the warehouse (old:150 TL containers / New: 150 LED containers)
- Disposable cups replaced by reusable cups
- Waste separation in offices
- New boiler controls
- Eight additional electric charging spots
- Compared to 2022, 5 more electric and plug-in hybrid cars have replaced combustion engines cars, bringing the total to 42 vehicles
- We have a water treatment process next to our surface treatment plant





Responsible solutions

Resource Use & Circular Economy

To manufacture our products, we need to use valuable resources. In our value chain, suppliers need to use large amounts of iron ore to make steel for our Walraven clamps and rails. We add zinc to make the product more durable and to protect our steel from corrosion. We also make use of oils for our plastic and synthetic rubber components.

Within the area of Resource Use & Circular Economy, EFRAG (European Financial Reporting Advisory Group) has defined three subtopics in its ESRS (European Sustainability Reporting Standards):

- Circular economy
- Materials and raw materials
- Waste



Circular economy

Circular economy is a relatively new topic for Walraven. A good intrinsic property of steel is that it is a durable and robust material. The expected average lifespan of steel is 35 years. [\[Link\]](#) *1

So, the value of the raw materials is maintained at a high level for a long time. Steel is often recycled at the end of life.

On the other hand, steel is also energy-intensive (we showed this in the chapter about climate change), and zinc is considered a scarce material. [\[Link\]](#) *2

We are aware that these materials have a significant effect on pollution, soil, water usage, and biodiversity. We expect that the global demand for these materials will grow with the current and future construction needs. We realise that iron ore and cokes for steel are often produced at steel mills in medium or high-risk countries when it comes to environmental, social, governance, and geopolitical matters. To significantly reduce our emissions, it is worthwhile for Walraven to investigate circular strategies. For example, making use of reused and recycled input materials. Our stakeholders also consider circular economy a material topic to Walraven from an impact perspective.

Materials and raw materials

Steel

We use steel, including zinc plated steel and stainless steel, as our primary material. We are already cutting down on our steel usage, which directly results in a lower product footprint. Although the availability of recycled steel is not unlimited, our suppliers add scrap steel to virgin steel during the production process. This process still requires energy; however, recycled steel uses much less energy and causes less pollution than virgin steel. [\[Link\]](#) *3

Plastics

As we examine our use of plastics, we see that we have more opportunities to utilise our materials sustainably. Our Walraven starQuick® products already incorporate about 20% of cutting waste from our production process. Additionally, our Walraven Yeti® products contain 98% recycled materials. We believe there is potential to increase the use of recycled content in our products and we are eager to explore this further.

Waste

According to the Scope 3 screening of 2022, conducted together with Nexio Projects, waste generated in our own operations accounted for 561.49 tCO₂e, so 0.69% of our total Scope 3 emissions, which is relatively low. This percentage includes hazardous waste. The reason for this relatively low figure is that our steel waste from production processes is directed towards recycling schemes. Nonetheless, we acknowledge the importance of reducing waste by designing it out in the initial stages of the design process.

*1: https://www.researchgate.net/figure/Expected-lifespan-and-causes-of-failure-of-steel-products-shows-that-the-average_fig10_281127566

*2: <https://www.sciencedirect.com/science/article/pii/S092134492100118X>

*3: <https://www.weforum.org/agenda/2023/01/davos23-steel-scrap-decarbonization>

Resource Use & Circular Economy



Our Actions

Circular economy

To gain a better understanding of the circular economy and how Walraven can play a role in it, we have participated in workshops on this topic in 2023. In the next reporting period, we will define our ambitions concerning a circular economy.

Materials and raw materials

For every new product we develop, we set a target to reduce our material usage by 20%. We are also looking into bio-based alternatives for surface treatments. In addition, for the next reporting period, we will develop a steel strategy.

Waste

For some Walraven locations, we have already partnered up with recycling companies to manage and document recycling streams for our waste. We want to prevent incineration or landfill of waste. We are currently looking into expanding this to other locations. Our design department makes sure our products are made 'fit for purpose,' so we do not use more materials than needed for the strength and optimal use of the product or solution.

The contribution of our product systems



Extreme durability by design and application

Our products are strong and long-lasting. When used indoors they won't wear out as buildings age. And when a building is no longer in use, our products can be easily removed and reused in another project.

More sustainable surface protection

We always aim to find more sustainable alternatives to existing methods. A perfect example is our Walraven BIS UltraProtect® 1000 surface protection technology. It has a high corrosion resistance according to ISO 9227. Salt spray tests show that the corrosion resistance of Walraven BIS UltraProtect® 1000 products is higher (up to 1,000 hours) than that of hot dip galvanized products (300 – 600 hours) while using less materials (55-80%) to achieve this result. Like other zinc coatings, this surface treatment results in a layer that can block corrosion and even repair serious scratches on its own.

The contribution of our product systems



Improving product design and new innovative solutions

We put a lot of effort into improving the features of every new product we develop while minimising the materials we use.

For instance, our Walraven starQuick® is made locally and is resistant to corrosion. We reuse the cutting waste directly in the same process. We would also like to highlight some more prominent examples of our sustainability efforts on product level.



Rely on our rails

The Walraven RapidRail® is a product that uses steel efficiently. It is a lightweight and easy-to-install alternative to traditional strut profiles. In May 2023, we introduced the redesigned Walraven RapidRail® system, resulting in a reduction of approximately 480 tons of CO₂ and 219 tons of steel annually compared to the previous version. Another unique benefit of the Walraven RapidRail® system are our pre-assembled slide nuts and Walraven Hammerfix which are 3 in 1 parts. These parts can simply be pushed and twisted into the rail. This way, our Walraven RapidRail® reduces the physical burden of working at height thanks to its quick installation features, and the products are therefore safer to install than strut alternatives.



Seismic bracings to reduce earthquake damage

We are expanding our product portfolio of Seismic bracings. Every year, earthquakes lead to a high number of victims and financial loss. Our new certified range of Seismic bracings is stronger and easier to install than the existing offering. These bracings are specifically designed to protect the mechanical, electrical, and plumbing systems (MEP systems) in buildings during earthquakes. By implementing this new product line, we aim to reduce the harm and financial loss caused by earthquakes.

The contribution of our product systems



Boosting the energy transition with Walraven Yeti®

Walraven Yeti® support systems are a prime example of a product designed with sustainability in mind. Walraven Yeti® contains around 98% recycled materials. The base of Walraven Yeti® is made with recycled polyamide. The polyamide used is post-industrial waste, consisting mainly of automotive waste. Wood fibres are added to the base to enhance the strengthening effect of the supports and it protects the product from UV radiation, as Walraven Yeti® is placed on rooftops. The rubber mat in Yeti® is a TPV, a material with a single origin.



The yellow insert is a virgin material partly made of glass fibres to add stability to the product. These raw materials and the innovative design form a durable product to provide complete rooftop solutions. These solutions are perfect for solar panel installations, servicing our clients eager to take the next steps in sustainability.



Saving energy by pipe insulation

HVAC (Heating, Ventilation, Air Conditioning) solutions consist for a big part of pipes that carry hot or cold water. The Walraven Group offers a balanced product line to insulate hot and cold pipes: our Aerofoam product line. By insulating pipes, the building owner will save energy used to heat & cool buildings. When used for cold pipes, Aerofoam can avoid condensation of water on the pipe, preventing corrosion and water damage on ceilings. Additionally to saving energy and preventing damage, Aerofoam will extend the lifetime of the HVAC installations.

The contribution of our product systems

Building Information Management (BIM) and Virtual Reality (VR)

We use BIM technology and VR to help us better plan and maintain our Walraven product systems within building installations. They help us detect potential problems early on and make better engineering decisions. Our virtual reality environment also helps us with this process. It allows us to see the finished solution in its future surrounding. Our clients can see every detail before the real solution has even been produced. This way of working prevents errors and makes our work more efficient.



The contribution of our prefabricated & modular solutions

Walraven is investing in modular and prefabrication (prefab) technologies that will help improve the way Mechanical, Electrical and Plumbing (MEP) engineering solutions are integrated within the industry. These efforts will not only improve technical and operational excellence, they will also help achieve sustainability, efficiency, safety, and compliance goals.



Prefabricated & modular solutions

Prefabricated (prefab) and modular solutions are typical 'offsite installations': products and product systems are assembled in assembly plants rather than on the building site. Because these solutions are made offsite, they can be optimally configured in terms of working environment, process, speed, and use of the right tools and resources. This has a positive impact on the working conditions of people at the construction sites. Waste management is more straightforward with offsite solutions due to meticulous preparation. Prefab solutions allow us to deliver customer-specific. This makes products easier to handle and it is better for repairs.

Enhancing health and safety in the workplace

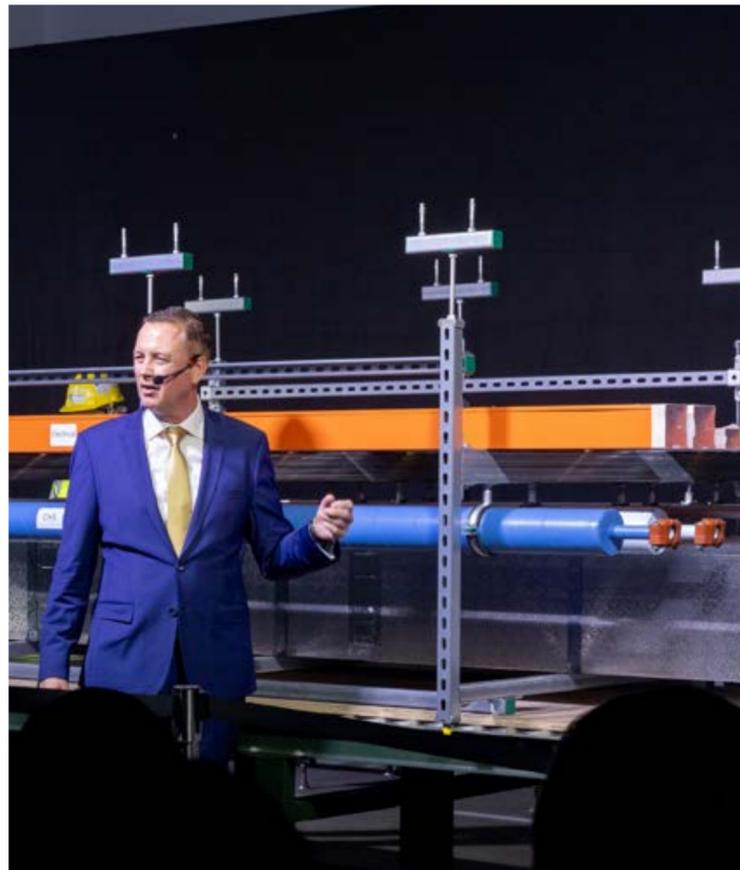
When applying prefabricated and modular solutions, a significant part of labour will be moved from construction sites to factories with a controlled indoor climate. This improves the working conditions for the workers. The remaining job onsite is to install the prefabricated or modular solutions; an activity that uses lifting equipment and lightweight tools. Besides improved working conditions, also the risk of accidents is reduced significantly when using prefab and modular offerings.

Contributing to a circular economy

In general, our products used in modular solutions offer great possibilities for recycling and reusability. Installations are changed regularly in buildings, even when the technical lifetime of the installations is not reached yet. By using prefab and modular solutions, it will be much easier to dismantle the solution and reuse it in another project.

MEP accreditation and award for Walraven Singapore

Walraven Pte Ltd., our Asia-Pacific hub based in Singapore, specialises in manufacturing and distributing high-quality fixing, fire protection, and rooftop systems. We are an official member of the Singapore Green Building Council (SGBC), which sets high standards for green building products and services to build more sustainable cities.



Our contribution to a more sustainable industry

We have our own Building Information Management (BIM) Engineering department. In the BIM system, efficiency and environmental factors are considered before finalising the design. Thanks to efficient planning, no additional materials are wasted. The adjustable and flexible Prefabricated MEP (Mechanical, Electrical and Plumbing) Modular systems that our team produces require minimal maintenance thanks to the BIS UltraProtect® 1000 anti-corrosion solution. Finally, we produce close to the local markets, minimising energy consumption caused by transport.



An award-winning team

In 2023, our Walraven Singapore team has achieved remarkable recognition at the Specialist Trade Alliance of Singapore (STAS) Prefab Mechanical Electrical and Plumbing (MEP) Day 2023:

1. Certification of Accreditation of Prefabricated MEP Manufacturer (Distribution System Category)

Our dedication to delivering prefabricated Mechanical, Electrical, and Plumbing solutions has been acknowledged with the Certification of Accreditation. This award highlights our expertise in the Distribution System Category.

2. Award Sponsorship

At Walraven, we believe in giving back to the industry that has supported our growth. We are proud to support progress and innovation in the prefabricated MEP solutions sector, and our dedication to this has earned us the privilege of award sponsorship.

3. Prefab MEP Achievement Award – Digitalisation

We received the Prefab MEP Achievement Award for our innovative and forward-thinking approach towards digitalisation. We are proud of our dedicated team, valued partners, and loyal clients who made this achievement possible. Together, we continue to shape the future of Prefabricated Mechanical, Electrical, and Plumbing solutions.

Young Talent Program and sustainable packaging

In 2023, we organised a European Young Talent Program with 10 participants from all over Europe. The Young Talents were nominated by their manager and the human resource department. The group travelled to various locations where the participants work. These visits allowed them to meet new colleagues, network, and gain a better understanding of how the company operates internationally.

This program is based on 3 pillars:

- Getting to know yourself and others
- Getting to know the company
- Getting to know the strategy

To help them in this journey, Management Drives, a coaching company specialising in personal growth, supported them by organising activities during each session to increase their self-confidence and give them the correct tools for personal growth.

During the program, each participant was invited to work on one of the following strategic projects:

- E-commerce: What does it mean for Walraven?
- Market strategy: Heavy Industrial solutions
- Sustainability: How do we reduce the environmental impact of our packaging?

Sustainable packaging project

With the support of several internal and external stakeholders, the group has thoroughly analysed the composition and quality specifications of our current packaging. They investigated possibilities for future reductions of plastic and cardboard.

Before the project was completely finalised, we implemented some of the suggested solutions.

1. Downsizing the thickness of plastic bags

The first solution we implemented is downsizing the thickness of LDPE bags from 55 µm to 45µm plastic thickness. We use more than 1,500,000 pieces every year, so any small change has a big impact. After testing thinner LDPE bags and securing them from the current supplier, we switched to the thinner bags, saving 1,430 kg of virgin material every year!

2. Using reusable plastic crates

Our long-standing supplier of plastic materials (used for some of our assembled products) delivered its goods to our factory in the Czech Republic in about 5,000 cardboard boxes per year (38 products – 31 million pieces). The advantage of this supplier is that it is at short distance from our production centres (about 5 km). The young talents came up with the idea of replacing the cardboard with reusable plastic crates, which is quite complex. The boxes must be storable and fit with the current machines. We made several tests in close cooperation with our supplier, and we made it happen. This change saves 2,5 tonnes of cardboard per year.

3. Reduction of stretch foil

In the Czech Republic, we used to put stretch foil around the coil crosses, but we noticed that it was unnecessary because those products are stored in the warehouse, safe from the weather. This minor change will save almost 1 tonne of plastic each year!

We are continuing our journey to find some more ways of reducing the environmental impact of our packaging. The Young Talent team gave us some other recommendations that we are looking into.



Testing reusable plastic crates



Packaging & storing without stretch foil

Innovation & Research

In 2023, we set a target to create a sustainability strategy for Product Management and Research & Development. We made a statement that aligns very well with this target:

“In everything we do, we believe we should innovate and contribute to make the construction and installation industry more sustainable”

Within Research & Development, we have translated this target into our 'Walraven Product DNA'. In this Product DNA document, we describe what rules we follow during the design process, and we define key performance indicators (KPIs) to monitor if the products are more sustainable.

Our Product DNA

Our Product DNA is multi-faceted. First, we want to differentiate our products from other products in the market. The choices we make in the development of new solutions must support our journey from manufacturing supplier and partner towards a manufacturer of integrated solutions.

For this transition, we have defined a few guidelines:

- We think in systems rather than products
- We design products as systems (they work together)
- We aim to keep them simple in usage and design
- Ease of use and effectiveness are always considered
- We focus on in-house production (cold forming, surface protection, plastics, elastomers, etc.)
- We control the entire process (from concept to manufacturing to sales)
- We have in-house capabilities for testing (fire testing, salt spray testing, strength testing, etc.)

Next to these global guidelines, there are some more specific directions that support Innovation & Research towards more sustainable products:

- We consider the complete installation process (installer, wholesaler, specifier, owner, etc.)
- Our products are recognizably:
 - Engineered, technical, precise
 - Well-designed
 - Fit for purpose
 - Easy to use
- We make the work of the installer easier by taking care of the surroundings and people through:
 - Easy installation
 - No loose parts (e.g. captive nut)
 - Easy to identify (color and design)
 - No burrs or sharp corners/edges, which could hurt people
 - Multiple usage per SKU (Stock Keeping Unit) (e.g. removable washers)
 - Multiple surface protection options (pre-galvanized, zinc plated, BIS UltraProtect®, etc.)
- During design phase we consider:
 - Be unique where we can
 - Low complexity
 - Optimised material usage (minimising waste)
 - Assembly (internally)
 - How to install (for our installers)
 - Use our manufacturing footprint efficiently

Sustainability KPIs for R&D

If we translate these guidelines and directions into KPIs, we are focusing on the following sustainability KPIs compared with base year 2023:

- Reduce material usage for new developments with 20% in 2025 and 30% in 2027
- Recycled content raw material steel 25% in 2025 and 50% in 2027
- Second use plastic materials 40% in 2025 and 80% in 2027



Our commitment to Environmental Product Declarations (EPDs)

Environmental Product Declarations (EPDs) are vital tools in promoting sustainable practices across industries.

They provide verifiable and accurate information about products' environmental impacts, enabling informed decisions by consumers, businesses, and policymakers. At their core, EPDs aim to reduce negative environmental footprints and encourage the adoption of eco-friendly alternatives.

Why EPDs matter for Walraven

At Walraven, we recognise that responsible business practices extend beyond profit margins. Our commitment to sustainability aligns with our core values, and EPDs play a crucial role in achieving our environmental goals. Here's why EPDs matter to us:

1. Transparency and Accountability:

EPDs allow us to communicate the environmental impact of our products transparently. By disclosing data on resource consumption, emissions, and other factors, we hold ourselves accountable to our stakeholders.

2. Informed Decision-Making:

Customers, architects, engineers, and contractors rely on accurate information when selecting building materials. EPDs empower them to make informed choices, favouring products with lower environmental footprints.

Our EPD Journey in 2023

1. Software Selection (Ecochain Technologies)

In 2023, we embarked on a journey to enhance our EPD practices. We carefully evaluated software solutions and chose Ecochain as our partner. Ecochain's robust platform enables us to track and analyse our environmental data efficiently.

2. Data Collection for Rail System

Our Rail System is a cornerstone of our product portfolio. To create accurate EPDs, we meticulously collected data on raw materials, manufacturing processes, and transportation associated with our Rail System. This comprehensive approach ensures that our EPDs reflect the true impact of our products.

3. Life Cycle Assessment (LCA)

LCA calculations are at the heart of EPDs. Our team collaborated with experts to perform rigorous LCAs for our products. By assessing the entire life cycle – from raw material extraction to disposal – we gained insights into areas for improvement.

4. Third-Party Review

To maintain credibility, we subjected our EPD data to third-party review. Independent experts verified our calculations, ensuring accuracy and compliance with EN15804+A2.

Looking Ahead: Our First EPD and Beyond

As we step into 2024, we are proud to announce that Walraven's first EPD will soon be published at NMD (The Dutch Environmental Database), Stichting MRPI® (Foundation for Environmental Relevant Product Information) and Ecoplatform. This milestone reflects our commitment to sustainability, innovation, and transparency. But that's not all! In 2024, we will extend our EPD program to cover a wide range of clamps.

Customers and End-users

Strategic focus

Most of our customers are based in our focus regions across the world: Europe, IMEA, APAC and North America. Although our product systems and solutions are being used outside these regions, our current strategy focuses on the mentioned regions.



Customers and our strategic focus

We have defined three strategic positions, each with its own focus and customer proposition:

- 1. Manufacturing supplier** focuses on quality and efficiency. Our proposition for our customers and end-users contains **product systems**; products which are designed to fit together to form a complete system.
- 2. Manufacturing partner** focuses on long-lasting relationships and partnerships. Our proposition focuses on engineered **system solutions** for our customers and end-users.
- 3. Manufacturing integrator** focuses on helping our customers to build and install more efficiently, safely, and sustainably. Our proposition involves developing **integrated solutions**. These solutions can easily be configured (online) to our customers' needs, they are standardised and reusable.

Stakeholders, decision making unit, customers & end-users

Our product systems are typically used by end-users: plumbers, installers, MEP (Mechanical, Electrical, and Plumbing) contractors and HVAC (Heating, Ventilation, Air Conditioning) contractors. In Europe, our products and product systems are widely available via our distribution partners. In other regions, we see a mix of channels towards the end-users.

For our manufacturing partner and integrator positions, it is beneficial to be present in the building process as early as possible and as high up in the decision-making unit as possible. This gives us a better understanding of the different stakeholders and their influence on the project. Our focus is shifting from small installers to large installers, technical engineers and even building owners.

Drivers and values

In the decision-making process, various drivers and values come into play. As we extend our offering and engage with a wider range of stakeholders, different drivers become more important. Right now, we see that the impact of sustainability during building projects are increasingly becoming a crucial driver across the value chain.



People at the heart

Own Workforce

Building a multinational with a heart for all people within our reach

We aim to make everyone feel they are part of ONE Walraven and can contribute to the company while treating each other respectfully. We focus on personal development and provide opportunities for a positive outlook. We are committed to finding new ways of working together to develop smart, sustainable solutions. Initiative, ownership, creativity, and cooperation are vital to reaching our goals.

Risks are widespread in our industry and value chains. From human rights abuses to inequality and poverty. From occupational health and safety risks to a lack of education and opportunities. Walraven aims to address these risks and lead by example. We understand and take responsibility for having a global presence with a high local impact on surrounding communities and all people within our reach (employees, customers, suppliers).

Our own workforce

Welcoming to people from all walks of life

Our Strategic goal, 'We connect,' highlights our ambition to create and maintain an environment where we can interact and work together to achieve common goals. We value and appreciate the diversity of our team members in terms of their knowledge, backgrounds, age, gender, and nationality. Our priority is to create a culture where everyone is treated fairly and where our people feel safe speaking up and supporting each other. By achieving this goal, we not only build a stronger team but also attract and retain top talent, increase engagement, support well-being, and contribute to the sustainable performance of our group.

Diversity and inclusion

We maintain a workplace free from harassment and discrimination. To reflect this well within Walraven, the following is in place:

- We employ people who are distanced from the labour market or disabled. They are part of our manufacturing organisations in the Netherlands (12 colleagues), the Czech Republic (95 colleagues) and the USA (11 colleagues)
- We have reviewed internal needs in terms of diversity by running internal research. This resulted in a first Women at Walraven session. The session inspired us to create a 2024 agenda on diversity and inclusion, including inspiration sessions, workshops, trainings, and we will implement targeted communication
- We will train management to make the topic visible and embedded in our processes
- In our selection process, we consider all aspects of diversity, including gender, nationality, experience, background, knowledge, skills, and insight
- In 2023, we set a target to achieve gender balance in management teams across the group

Age category	Female	Male	Not disclosed	Total
<20	5	7	0	12
20-29	66	166	1	233
30-39	112	204	1	317
40-49	144	174	0	318
50-59	121	201	0	322
60-69	35	90	0	125
not disclosed	2	2	8	12

Average age: 43 year and 39 days

Gender diversity per region in %	Female	Male	Not disclosed
Europe	38%	62%	0%
North America	27%	71%	1%
APAC	42%	58%	0%
IMEA	17%	71%	12%
Average	36%	63%	1%

Own Workforce

Building a multinational with a heart for all people within our reach

Fair treatment

Fair treatment is part of our compensation and benefits standards. All employees should be treated fairly based on behaviour and in our processes, like compensation. We have implemented a group compensation policy with the aim of pay equity. We want all employees to be paid in line with our compensation and benefits principles and policy, contributing to adequate and fair pay. We started this process in 2018. Annually, we review the process and take corrective actions.

In 2023, we reviewed gender pay equality in Europe. We will implement development plans based on the analysis. In six out of ten countries, fair pay with a solid balance of female/male is applied; in four countries, we still must make some steps. This is mainly driven by lower gender diversity in the hierarchy of the organisations.

Continuous dialogue

We believe in fostering continuous dialogue, development, and collaboration in a safe and inclusive environment. We have implemented the following processes and policies to ensure the same:

- Our Building Best People program: an annual development, feedback, and performance cycle. We have deployed this process in 12 countries – 640 employees are included. We aim for full implementation across all regions. This process supports our people's individual development and enables them to speak up about their needs and concerns.
- Since 2023, a talent management process has been piloted, to be further deployed within Walraven, supporting development, and providing equal opportunities.
- We implemented a formal speak up policy, our Group Whistleblowing policy. This policy was made available to all on our Group HR Matters site and incorporated in our global online onboarding program.
- An informal European Sounding Board was put in place, a collective effort dedicated to fostering collaboration between our employees and the European Management. A diverse group of people, including a representation of our countries, functional areas, and gender.

Our people's well-being is vital

Ensuring people's well-being is vital to securing our purpose as a multinational with a heart. We are committed to providing a safe work environment that protects people from work-related health hazards, prevents accidents, upholds human rights, and ensures a personal approach.

- All our entities have well-being activities and measures in place. Our locations have health and safety guidelines in place and conduct regular training sessions.
- We have implemented hybrid working policies in several office locations and always keep an eye on the personal circumstances of our people to encourage and support a good work-life balance.
- We continued our annual engagement quick scan, providing input for targeted actions per location or entity. Well-being is high on the agenda and in the DNA of our entities: 77% of our employees feel that the company is committed to the well-being of its employees.

Absenteeism	2023	2022
% Absenteeism	7.72%	5.00%
% Absenteeism - long term	2.76%	2.30%
% Absenteeism - short term	4.96%	2.70%



Own Workforce

Building a multinational with a heart for all people within our reach

We consider all employees to be a talent!

Our people's development is important in any phase of their career. We set ourselves the aim to spend 10% of working time on learning and development. Currently, we are at 5,1% time spent on learning, particularly on the job, through projects and self-learning. This is how we support learning & development at Walraven:

- We work with a talent framework to offer relevant development opportunities
- From starters (trainees), young talents and young professionals (23% of our workforce) to professionals (72% of our workforce) and strategic leaders. We put in place tailored learning programs for each group.
- Individual learning and development plans are incorporated in our Building Best People Process which serves as a foundation for continuous learning and development.
- We invested in a Learning Management System platform, Eloomi. In our online Walraven Academy, we have taken the first steps to provide relevant learning opportunities to our employees.
- We have embedded Management Drives in the organisation for office employees. This coaching tool helps talents and teams fully utilise their potential by working with one common language to address behaviour. The next step is to implement the tool for production and warehouse employees.



Own Workforce

Building a multinational with a heart for all people within our reach



We don't waste any talent

Walraven has been working with the Municipality of De Ronde Venen (The Netherlands) for several years to ensure that residents with disabilities can participate within our organisation. We also have partnerships for similar initiatives at Suchánek & Walraven in the Czech Republic and at Walraven Inc. in Danville, USA.

Participation and having a job means a lot to people. Financial independence, social contacts, and clear daily structure improve well-being. This also applies to people with disabilities, for whom it is harder to find a job that suits them. They must also be able to participate to the best of their ability.

We established assembly departments at our entities in the Netherlands, the Czech Republic, and the USA where these colleagues are currently employed. (The Netherlands: 12 colleagues, the Czech Republic: 95 colleagues, USA: 11 colleagues)

They perform various activities every day under the supervision of a coordinator. These activities include:

- The final assembly of produced clamps
- Packaging of consoles
- Packaging of Walraven starQuick® clamps.

We take pride in providing a place for this particular target group to grow themselves while being a part of our workforce. They are also eligible for career growth within the company's regular employment process.

Workers in the Value Chain



Business ethics in supplier relationships

We expect our suppliers to comply with all (local) laws and regulations applicable to their business activities. We also expect them to conduct their work in an honest and reliable way and have internal control systems in place to detect, prevent and respond to fraud and money laundering.

Walraven Supplier Code of Conduct

We have created our Walraven Supplier Code of Conduct to help and guide us and our suppliers. It is based on our core values: We do business from the heart and strive for long-term relationships with our customers, employees, suppliers, partners, and society as a whole. First, Walraven is about people.

- The Supplier Code of Conduct applies to the entire value chain and explains how we and our suppliers should behave towards our stakeholders. The Code outlines the directives and principles that we follow in our operations and the standards our suppliers need to adhere to. If a supplier is non-compliant with our agreed directives, Walraven will take appropriate action, including demanding corrective measures or terminating the relationship with the supplier.
- Starting in 2024, we will monitor formal supplier acceptance of our Code of Conduct. The Walraven Supplier Code of Conduct is available at our international website.

Supplier evaluation

Suppliers are evaluated based on various performance criteria, including delivery, costs, quality, and social and environmental governance. The latter is currently monitored by a Self-Assessment Questionnaire. Based on the results of the SAQ and the corresponding risk score (based on the production country risks and supplier risks), Walraven may choose to have a third-party supplier audit (SMETA) performed at the supplier. From 2023 onwards, we have chosen to use the Sedex (Sedex.com) platform to conduct self-assessments. We aim to have our 70% spend direct material suppliers in Europe covered by Sedex by the end of 2024. In December 2023, 6.4% of our European direct material spend suppliers were enrolled in Sedex.

Walraven Foundation



We also supported the creation of an inclusive playground where children with a (physical) disability can play safely



The Walraven Foundation is a charity founded in June 2001 by the certificate holders. The foundation board, comprising certificate holders, fully leads and controls it. They strongly believe in the moral obligation to act socially responsible and support local charities. We are building a multinational with a heart and want to act as such. While we are developing, we also want to help others in their development.

As a family company, we always seek opportunities to create value and provide for our families. We want to extend our reach and create value for others, so we invest in initiatives that enable them to grow and flourish as well.

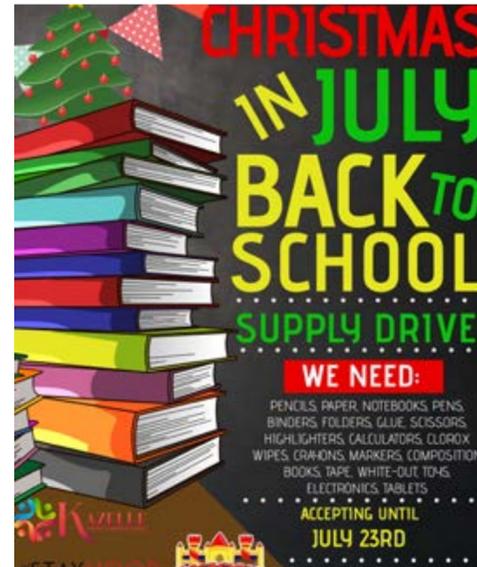
In 2023, the Walraven Foundation supported 11 initiatives. Each has a different, sometimes personal, story. For example, three colleagues decided to walk or cycle the mountain Alpe d'Huez in France to raise money for cancer research. We also supported the creation of an inclusive playground where children with a (physical) disability can play safely. Together with our team in the Czech Republic, we organised an internal humanitarian auction. The team collected 'used' products to sell to new buyers. The proceeds were used to help colleagues who could really use a heartwarming gesture in their personal lives. The Walraven Foundation doubled the auction's total amount.

We believe that these initiatives, close to the hearts of our colleagues, bring even more value to our company and surrounding communities. We genuinely value social sustainability within our multinational with a heart.

The communities we work and live in

Walraven has a global presence, yet we always try to have a local mindset. When making business decisions, we consider their impact on our environment and the communities they affect. This means considering the risks associated with our production locations and offices. We also carefully consider where to locate our operations. We do this by assessing the benefits we can bring to surrounding communities, such as education and work opportunities, the health of the community members, and the work environment.

Building a multinational with a heart also means that all entities within Walraven take several social initiatives to contribute to the well-being of specific groups within our communities.



Examples of 2023 initiatives

- Walraven USA raised money for backpacks and school supplies to support the children in their hometown
- Our Walraven UK colleagues participated in a 10-mile run to raise money for a Hospice nearby
- At Walraven Poland, several teams participate in a Business Charity run in Kraków every year

These and other initiatives from all over the Walraven Group are initiated personally by our colleagues. Sometimes, there is a personal story behind them, but the goal always is to help other people.

The vision of the Walraven certificate holders strongly supports our social contributions. The family's purpose has always been to take care of our people and pass on a healthy organisation to the next generation. With the Walraven Foundation, they inspire everyone within Walraven to show their social heart and take care of the people around them.



Appendix

Scope 1, 2 and 3 emissions

The current impact of Walraven

To monitor our progress and develop targets and action plans, we started to assess our current impact on climate change. The Greenhouse Gas Protocol divides greenhouse gas emissions into 3 'Scopes':

Scope 1

Direct emissions from owned or controlled sources

Scope 2

Indirect emissions from the generation of purchased electricity, steam, heating, and cooling

Scope 3

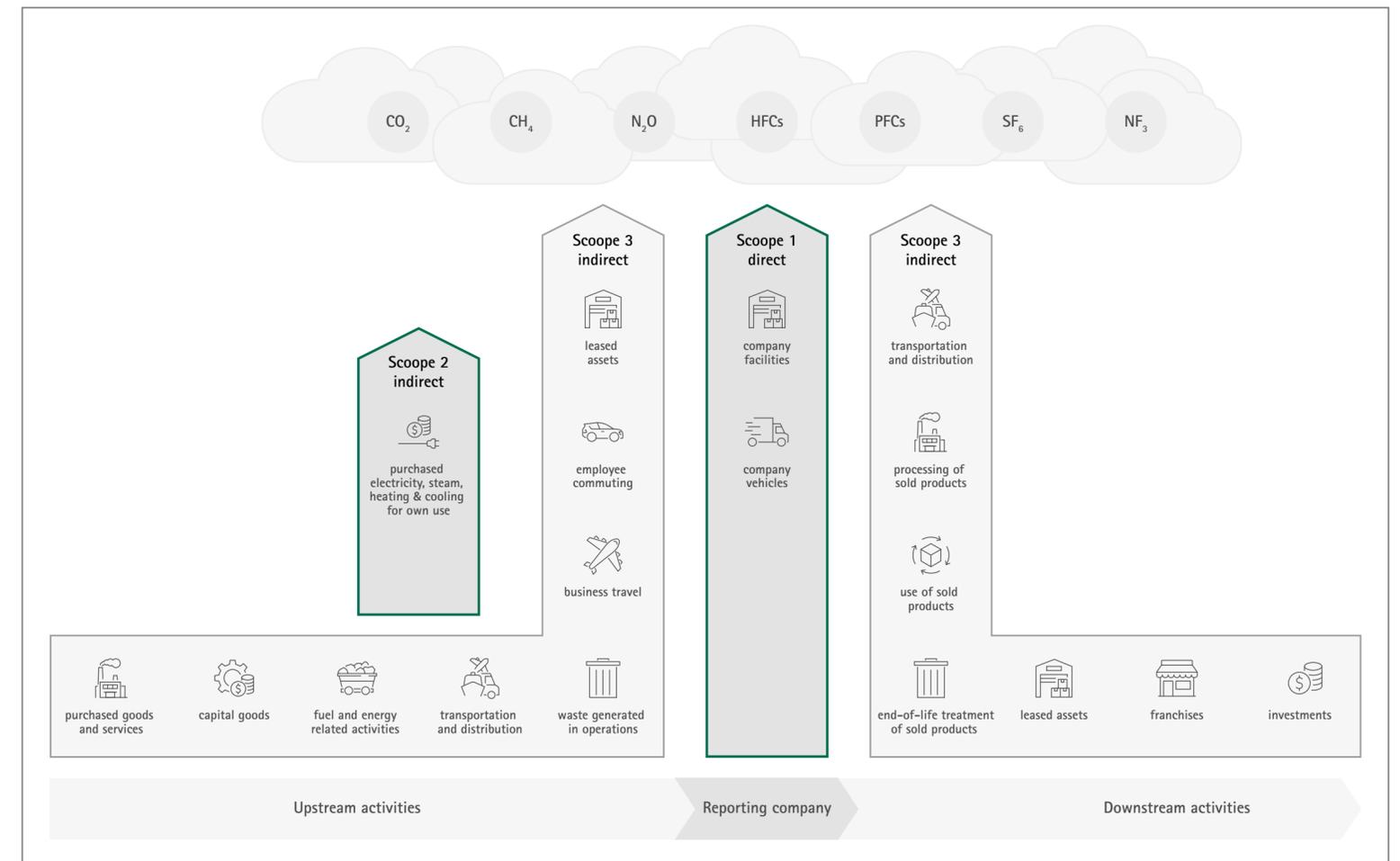
All indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

In this section, we present the results of our Scope 1 and 2 assessments on 2022 and 2023, and the Scope 3 screening on 2022.

The methodology used for these assessments and screenings has been the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. The findings are retrieved from the Walraven GHG Assessment Report 2022 and 2023 from Nexio Projects, based on Walraven data.

Scope 1 and 2 assessments 2022 and 2023

We have partnered with Nexio Projects to conduct a Carbon Footprint Assessment for the year 2022 and 2023. The emission inventory covered Scope 1 and Scope 2 emissions as defined by the Greenhouse Gas (GHG) Protocol Corporate Standard and the ISO 14064 Standard. For each emissions source, location-specific primary data was compiled and validated. In cases where primary data was unavailable, Nexio Projects made reasonable and robust assumptions to generate a complete and comprehensive data set. We used various recognised market- and location-based emission factor databases for the calculation of greenhouse gas emissions.



Overview of GHG Protocol scopes and emissions across the value chain. (Original source: GHG Protocol, redrawn by Walraven)

Scope 1 and 2 emissions

Overview of main results – Scope 1 and 2:

Scope	Emissions 2023 (tCO ₂ e)	% of Total	Emissions 2022 (tCO ₂ e)	% of Total
Scope 1 Emissions	2,017.90	48.29%	2,299.79	51.45%
Scope 2 Emissions (Market-based)	2,161.16	51.71%	2,170.27	48.55%
Scope 2 Emissions (Location-based)	3,038.19		3,263.57	
Total Emissions (incl. Scope 2 Market-based)	4,179.06	100%	4,470.06	100%

Overview of emissions per source – Scope 1 and 2 – 2022 and 2023:

Emissions per Emission source	Emissions 2023 (tCO ₂ e)	% of Total	Emissions 2022 (tCO ₂ e)	% of Total
Natural Gas	800.80	19.16%	690.85	15.46%
Other Fuels	365.54	8.75%	557.40	12.47%
Fugitive Emissions	24.01	0.57%	20.96	0.47%
Mobile Combustion (owned or leased vehicles)	827.56	19.80%	1,030.57	23.05%
Scope 1 Emissions	2,017.90	48.29%	2,299.79	51.45%
Purchased Electricity (Market-based)	2,119.48	50.72%	2,131.36	47.68%
District Heating, Cooling & Steam	41.68	1.00%	38.90	0.87%
Scope 2 Emissions	2,161.16	51.71%	2,170.27	48.55%

Scope 1 and 2 emissions

Main outcomes

Within Scope 1 and 2, it is clear that purchased electricity (47.7% of the total emissions in 2022 and 50.7% in 2023) and mobile combustion, our company-owned and long-term leased vehicles (23.1% in 2022 and 19.8% in 2023 of Scope 1 and 2 emissions), are our main focus areas to reduce our footprint. Most notably, total emissions have decreased by 6.5% in 2023 based on 2022 as a baseline year. This decrease took place despite an increase in natural gas emissions and can mainly be attributed to a decrease in emissions from fuel consumption in both stationary and mobile sources. Our strategy to reduce our emissions within Scope 1 and 2 towards 2027 will be mainly focused on increasing the use of renewable energy and green mobility.

Scope 1 Stationary Combustion

Natural Gas

Natural gas constitutes the third source of GHG emissions of Walraven, totalling 15.5% of organisational Scope 1 and 2 emissions in 2022 and 19.2% in 2023. Within Scope 1 emissions, the combustion of natural gas is responsible for 30.0% of emissions in 2022 and 39.7% in 2023. In 2023, natural gas emissions have increased by nearly 16% or by 110 tCO₂e as compared to 2022.

Other Fuels

Other fuels represent 12.5% of organisational Scope 1 and 2 emissions in 2022 and 8.8% in 2023. Within Scope 1 emissions, their combustion represents 24.2% in 2022 and 18.1% in 2023. Other fuel emissions result from the combustion of propane used for heating purposes and R&D tests, gasoline and diesel, both used for manufacturing processes. These emissions decreased by 34.4% in 2023 compared to 2022.

Fugitive Emissions

Fugitive emissions of R410A represent <1% in both organisational Scope 1 and 2 emissions. This refrigerant is used for stationary air conditioning equipment or heat pumps.

Mobile Combustion – company-owned or long-term leased vehicles

Owned or leased vehicles represent the second biggest share of organisational Scope 1 and 2 emissions, reaching 23.1% of those emissions in 2022 and 19.8% in 2023, and the biggest share of Scope 1 emissions with 44.8% in 2022 and 41% in 2023. Emissions from owned or leased vehicles came from diesel, gasoline, LPG, and propane for cars, forklifts, and trucks. Diesel is the most significant source of emissions, representing 76.8% in 2022 and 69.6% in 2023, followed by gasoline emissions, representing 19.3% of emissions in 2022 and 28% in 2023. Emissions decreased by 19.7% as compared to 2022. This decrease can be attributed to a significantly lower consumption of diesel and propane (-23% for both), to the benefit of switching to more electric vehicles and electricity consumption in vehicles, which increased by 37%.

Scope 2

Purchased Electricity

Purchased electricity represented 98.2% of Scope 2 emissions in 2022 and 98.1% in 2023, reaching 47.7% of total emissions in 2022 and 50.7% in 2023. One of our plants in the Czech Republic was the largest contributor, accounting for 16% of these emissions in 2022 and 27.53% in 2023. This can be explained by the facility's large size, covering 12% of all facilities' floor area, and energy intensive operations. This was closely followed by our Turkish facility, with 11% of emissions in 2022 and 23% in 2023. Both facilities are in countries with an electricity mix that heavily relies on fossil fuels including coal. Emissions due to purchased electricity slightly decreased (-0.56%) in 2023 as compared to 2022.

District Heating, Cooling & Steam

Purchasing of district heating and cooling had a minor contribution (1.0% of total emissions in 2023). Emissions from purchased heating and cooling increased by 7.13% as compared to 2022. This can potentially be attributed to higher heating demand in 2023.

Scope 1 and 2 emissions

Energy consumption and mix	2023 (MWh)	% of Total	2022 (MWh)	% of Total
(1) Fuel consumption from coal and coal products	0	0%	0	0%
(2) Fuel consumption from crude oil and petroleum products	5,086.59	27%	6,829.80	33%
(3) Fuel consumption from natural gas	4,208.38	23%	3,960.16	19%
(4) Fuel consumption from other non-renewable sources	0	0%	0	0%
(5) Consumption from nuclear products	0	0%	0	0%
(6) Consumption of purchased or acquired electricity, heat, steam and cooling from non-renewable sources	7,057.85	38%	7,106.84	35%
(7) Total non-renewable energy consumption (calculated as the sum of lines 1 to 6)	16,352.83		17,896.80	
Share of non-renewable sources in total energy consumption	87.82%		87.01%	
(8) Fuel consumption from renewable sources (including biomass, biogas, non-fossil fuel waste, hydrogen from renewable sources, etc.)	0	0%	0	0%
(9) Consumption of purchased or acquired electricity, heat, steam and cooling from renewable sources	1,481.75	8%	1,794.36	9%
(10) Consumption of self-generated non-fuel renewable energy	786.16	4%	878.11	4%
(11) Total energy consumption from renewable sources (calculated as the sum of lines 8 to 10)	2,267.90		2,672.46	
Share of renewable sources in total energy consumption	12.18%		12.99%	
Total energy consumption (calculated as the sum of lines 7 and 11)	18,620.73	100%	20,569.26	100%

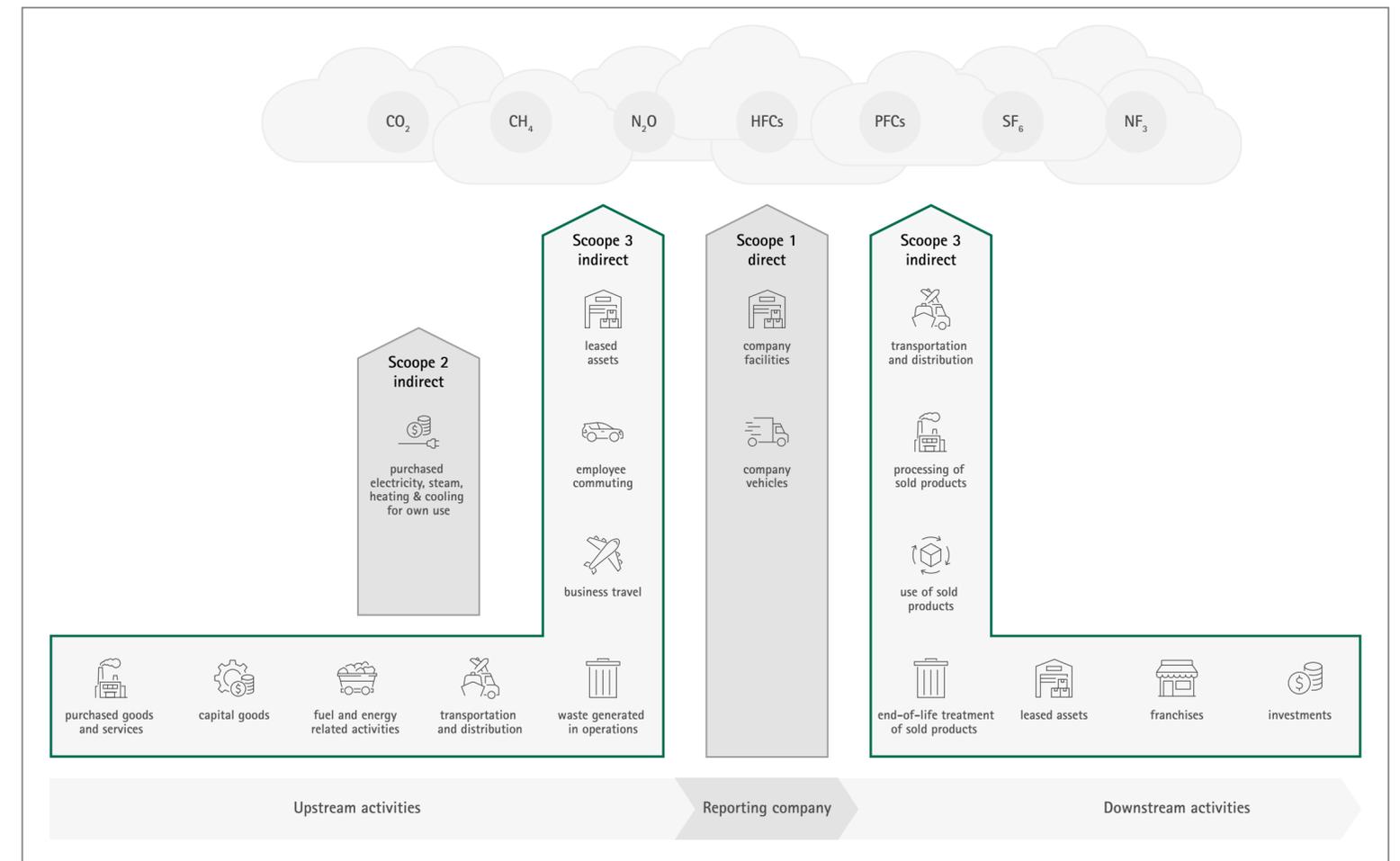
Energy intensity per net revenue	2023 (MWh/€m)	2022 (MWh/€m)
Total energy consumption from activities in high climate impact sectors per net revenue from activities in high climate impact sectors	96.78	104.72

GHG intensity per net revenue	2023 (tCO ₂ e/€m)	2022 (tCO ₂ e/€m)
Total GHG Emissions (Market-based) per net revenue	21.72	22.76
Total GHG Emissions (Location-based) per net revenue	26.28	28.32

Scope 3 emissions

Scope 3 screening 2022

Following our 2022 Scope 1 and 2 assessment, Walraven has once again partnered with Nexio Projects to conduct this time a Scope 3 screening for the calendar year 2022. The purpose of this Scope 3 screening was to identify emission hotspots within our value chain. This helps us to channel our focus on material emission sources and make estimates more accurate for future assessments. The Scope 1 and 2 assessments, and the Scope 3 screening follow the guidance stipulated by the Greenhouse Gas (GHG) Protocol Corporate Standard and the ISO 14064 Standard. For each Scope 3 category source, activity data was collected and used wherever possible. Spend-based figures were again used to estimate emissions wherever activity data was unavailable. Well-established and recognised emission factor databases were used to calculate greenhouse gas emissions based on the collected activity data.



Overview of GHG Protocol scopes and emissions across the value chain. (Original source: GHG Protocol, redrawn by Walraven)

Scope 3 emissions

Scope 3 screening 2022

Emissions source	Emissions tCO ₂ e	% of Total
Cat 1. Purchased goods and services	60,901.82	75.36%
Cat 4. Upstream transportation and distribution	5,005.90	6.19%
Cat 9. Downstream transportation and distribution	4,437.46	5.49%
Cat 12. End-of-life treatment of sold products	4,111.15	5.09%
Cat 2. Capital goods	3,037.13	3.76%
Cat 3. Fuel and energy related activities	1,492.76	1.85%
Cat 7. Employee commuting	697.75	0.86%
Cat 6. Business travel	571.64	0.71%
Cat 5. Waste generated in operations	561.49	0.69%
Total Scope 3 Emissions	80,817.11	100%
Emissions per revenue	414.44	
Emissions per FTE	63.36	

Main outcomes

This section will present some analytical insights into Walraven's three main hotspots of Scope 3 emissions, namely Category 1 – Purchased goods and services, Category 4 – Upstream transportation and distribution, and Category 9 – Downstream transportation and distribution.

Cat 1. Purchased goods and services

The purchase of goods and services constitutes the major source of Walraven's upstream Scope 3 carbon emissions, accounting for 75.4% of the calculated total emissions. Purchased goods were responsible for 99.1% of category 1 emissions, with purchased services accounting for 0.9%.

Metals

Given that Walraven supplies goods for installation systems, it is common for metals to constitute the highest source of emissions. In 2022, metals weight accounted for 88% of the total purchased weight and represented 50,077.69 tCO₂e – 82.2% of category 1 emissions, and 62.0% of total Scope 3 emissions.

Plastics

Following metals, the most emitting materials are plastics (5.6%), chemicals (4.4%) and rubber (4.2%). In general, the proportion of emissions is driven by the quantity of goods purchased.

Purchased services

Audit and consultancy services contributed the most to emissions, representing 61% of purchased services emissions. Printing and publishing services follow, contributing 14% of purchased services emissions.

Cat 4 & 9. Upstream and Downstream transportation and distribution

The combined contribution of upstream and downstream transportation to total Scope 3 emissions was approximately 11.7%. Specifically, upstream transportation accounted for around 6.19%, while downstream transportation contributed 5.49%. Road transport contributed to 83.1% of upstream transport emissions and accounted for nearly all downstream transport emissions, representing 99.6% of the total emissions. This was expected given most transport was conducted by road transport, and air transport was rare. Sea transport was significant as well, though only a fraction of road transportation. Additionally, due to the efficiency of the transportation mode, emissions from ships are much lower per ton-km of freight than for road transportation (close to 20 times lower).

Scope 3 screening 2022

Scope 3 Carbon Footprint Assessment 2022

Emissions source	Emissions tCO ₂ e	% of Total
Total Scope 1 Emissions	2,299.79	2.70%
Total Scope 2 Emissions (Market-based)	2,170.27	2.54%
Total Scope 2 Emissions (Location-based)	3,263.57	0.00%
Total Scope 3 Emissions	80,817.11	94.76%
Upstream Emissions		
Cat 1. Purchased goods and services	60,901.82	75.36%
Cat 2. Capital goods	3,037.13	3.76%
Cat 3. Fuel and energy related activities	1,492.76	1.85%
Cat 4. Upstream transportation and distribution	5,005.90	6.19%
Cat 5. Waste generated in operations	561.49	0.69%
Cat 6. Business travel	571.64	0.71%
Cat 7. Employee commuting	697.75	0.86%
Cat 9. Downstream transportation and distribution	4,437.46	5.49%
Cat 12. End-of-life treatment of sold products	4,111.15	5.09%
Total Scope 3 Emissions	80,817.11	100%
Scope 3 Emissions per revenue (tCO ₂ e/€m of revenue)	411.44	
Scope 3 Emissions per FTE (tCO ₂ e/FTE)	63.36	
Total Scope 1 & 2 & 3 Emissions (Market-based)	85,287.15	
Total Emissions per revenue (Market-based) (tCO ₂ e/€m of revenue)	434.19	
Total Emissions per FTE (Market-based) (tCO ₂ e/FTE)	66.86	

1 Total revenue in 2022 was €196.4 million. Before final approval annual account.

GHG intensity 2022

GHG intensity per net revenue	2022 (tCO ₂ e/€m)
Total GHG Emissions (Market-based) per net revenue	434.19
Total GHG Emissions (Location-based) per net revenue	439.76

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Walraven Group

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