Halma plc

Emissions Reduction Report

2024

Halma

Introduction

Introduction

Welcome to the Halma plc Emissions Reductions Report (ERR) for 2024 which provides details of our progress on sustainability initiatives and metrics linked to climate change.

Over the last 12 months, Halma companies have continued to make good progress, reducing our Scope 1 & 2 emissions as we explain on pages 12 to 16. In addition, our companies' exploration of sustainable design has also contributed to localised reductions in our Scope 3 emissions, as we illustrate on pages 18 to 23.

We recognise the increasing risks associated with climate change, but at the same time see the potential of the low carbon transition for our companies' growth. In fact, many of our operating companies are increasingly motivated by climate change and using their strengths to identify solutions that are related to the adaption of their existing products, the development of new products, and the exploration of growing new markets such as those linked to the energy transition.

That's why in this report we provide examples of the role climate change plays as part of our first sustainability pillar - to Drive Growth in Sustainability (see pages 6 to 9). This information is supplementary to our TCFD Statement in our 2024 Annual Report and Accounts where we also explain how we are identifying, monitoring and responding to potential climate-related risks.

Due to our operating model, with nearly 50 companies working across three different sectors, we know that we have the potential to create a diversity of solutions to support people and protect our environment. Supporting People and Protecting our Environment are our second and third sustainability pillars which state respectively that we will improve the lives of employees, suppliers and community members, and deliver more environmentally friendly operations, supply chains and products.

In support of this, at Group level we provide centralised guidance and insights to our companies while setting out clear expectations. For example, we require each Halma company to create an individual Sustainability Action Plan (SAP), making clear the goals and actions they have in place to reduce their Scope 1 & 2 emissions. Increasingly, some of these plans include details of Scope 3 decarbonisation activities as well. Read more about this approach on page 5 of this report and in our 2024 Annual Report and Accounts.

It perhaps goes without saying that due to the scale and diversity of our operations, one single report couldn't hope to represent the entirety of our companies' many diverse sustainability-related initiatives and activities. Therefore, the information contained in this report is by no means exhaustive but instead acts as a companion piece for our 2024 Annual Report and Accounts including our TCFD disclosures, as well as more quantitative and qualitative ESG data available at www.halma.com.

We hope that through this document, alongside others detailed above, we can make clear our commitment to emissions reduction while highlighting interesting examples and corresponding data for context.

Constance Baroudel
Chief Sustainability Officer
June 2024

Approach

Our approach to sustainability

A single approach and a diversity of solutions

Sustainability has always been at the core of our purpose-driven strategy for growth at Halma, through our continued focus on acquiring and growing companies in the safety, environmental, and healthcare markets. Our companies address real-world problems by enabling their customers to provide safer environments, protect life-critical resources, and deliver better healthcare.

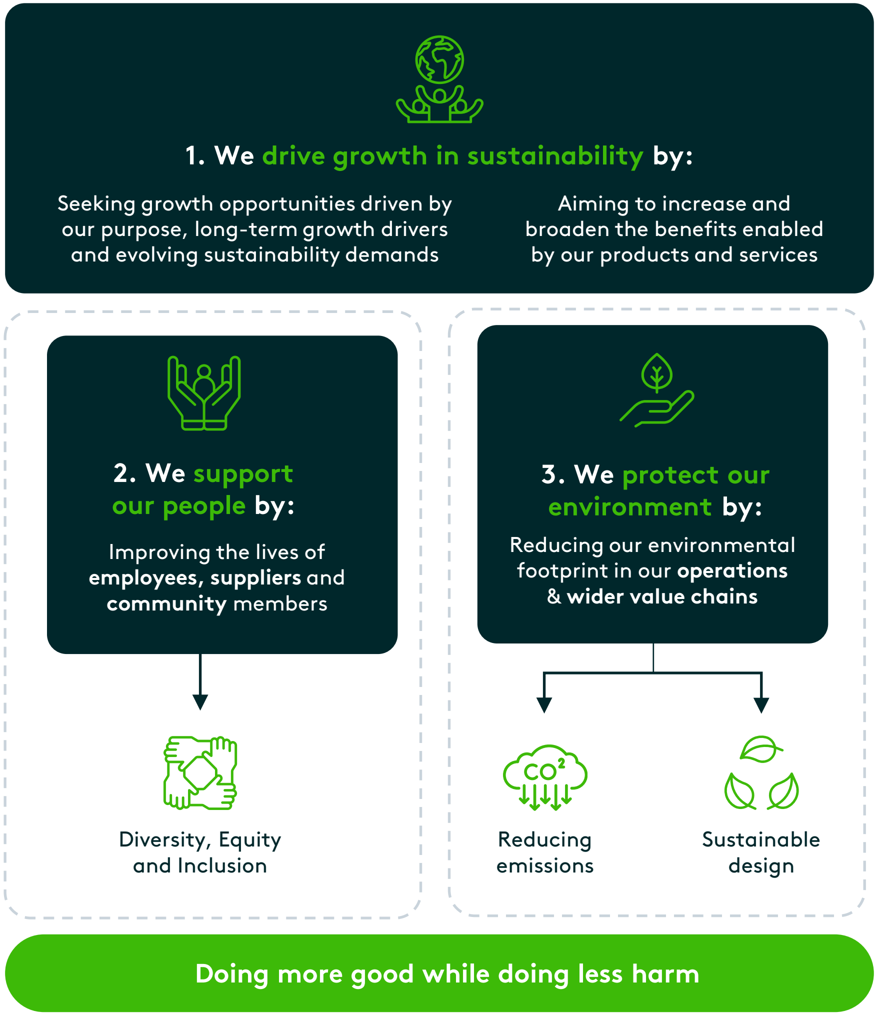
Central to this approach is our strength in numbers, with each of our nearly 50 entrepreneurial operating companies empowered to develop their own individual strategic approaches for contributing to our Group wide sustainability goals.

The result is a 'diversity of solutions', a diversity that ensures our sustainability strategy remains agile and adaptable.

To help further drive our work on our second and third sustainability pillars, we have embedded metrics in the bonus incentives for our leaders with 5% of annual bonus based on DEI (achieving 40 – 60% gender balance on company boards) and a further 5% based on climate change (improving energy productivity as we grow). This mirrors our commitment to the view that sustainability is everyone's business.

An overview of the three pillars of our sustainability strategy can be seen on the right with further details available in our <u>2024 Annual Report and Accounts.</u>

Our approach to sustainability



Driving growth in sustainability

Climate change

The effort to address climate change is a key long-term growth driver for Halma.

On balance, while climate change presents various potential risks to Halma, as set out in our latest TCFD Statement, the low carbon transition and the need to adapt to changing climates continues to present potential opportunities for our companies to drive growth while expanding positive impact.

As a group of companies operating in varied market niches there are many ways in which our companies can engage with this growth driver.

In line with our business model, we enable our companies to respond to climate-driven opportunities in their markets in an agile, entrepreneurial way.

The following pages illustrate some of the approaches our companies could take in the future, as well as examples of those who are already pursuing climate-related growth opportunities.

> "Our approach supports and inspires a diversity of solutions across both climate-related growth opportunities and emissions reductions activities."
>
> **Constance Baroudel,** Chief Sustainability Officer

> "The climate emergency is one of the biggest issues facing our society and our environment. The physical impacts of climate change are of significant concern to all of us, as individuals and as businesses.
>
> We believe that a robust and timely low-carbon transition in line with a 1.5ºC trajectory is highly aligned with Halma's purpose to grow a safer, cleaner, healthier future for everyone, every day and therefore a significant source of potential growth opportunities for Halma companies. Alongside this, climate change presents potential transition and physical risks for Halma. However, on balance we believe that pursuing potential climate-related opportunities, which are highly aligned with our purpose and long-term growth drivers, should be the focus of our strategic response."
>
> Statement on Climate Change taken from Halma's TCFD statement, 2024
>
> Our full TCFD Statement is available here for more information.

Driving growth in sustainability

Delivering a diversity of solutions – a company-led approach

There are many ways in which our companies are identifying solutions to the climate crisis, in line with our commitment to drive growth in sustainability. Broadly, these revenue and profit growth opportunities can be grouped under the four categories below, with illustrative examples[1] provided on the following pages, and in our 2024 TCFD Statement.

Our companies may also drive growth by providing products and services that offer a lower-carbon or more efficient alternative. Examples of these initiatives are included in the Scope 3 section on pages 18 to 23.

Enabling: Providing products and services that enable, support or reduce costs for transitioning industries, technologies and processes, including mitigating carbon emissions where relevant.

Adapting: Providing products and services that enable businesses and societies to cope with the physical impacts of climate change.

Increasing demand: Benefiting from wider markets or increasing demand for our products as a result of the low-carbon transition. Examples include our fire and door sensor products, which may see increasing demand due to increasing levels of building retrofits.

Pivoting: Working with our customers to ensure we can continue to provide products and services as their industries transition and their needs change.

1. As explained more fully in our TCFD disclosures, no opportunities are expected to be material in their own right, and a material aggregate opportunity is only expected to arise over the medium to long-term (3-10+ years). These examples are given for illustrative purposes only, and are not selected based on size of company or opportunity.

Driving growth in sustainability

Climate change examples

Enabling: Providing products and services that enable, support or reduce costs for transitioning industries, technologies and processes, including mitigating carbon emissions where relevant.

The safety of the energy transmission and distribution network is crucial as we transition to low-carbon power grids and infrastructure. Several of our companies create solutions to keep people, equipment, and the environment safe as well as supporting the transition to low-carbon fuel sources.

Supporting the transformation of networks to low-carbon power grids

- **Crowcon, Sensit and Sensitron** provide hydrogen detection to keep workers safe as hydrogen is increasingly blended into natural gas supplies. Crowcon sensors are now being installed into electrolysers (the mechanisms that generate hydrogen) to ensure no dangerous build-up of hydrogen occurs while system is running. This is helping make a renewable but potentially volatile source of alternative energy safer to manage and thereby aiding the energy transition.
- **OsecoElfab's** rupture disc products are specially designed for industrial customers who are transitioning away from SF6, a potent greenhouse gas, to alternative gases within gas insulated switchgear used for electricity transmission. **Sentric** also addresses the challenges of working with high voltage switchgear with specialised solutions designed to uphold strict safety protocols.
- **FirePro's** fire suppression systems use a non-pressurised condensed aerosol technology which does not contain ozone depleting substances or fluorinated greenhouse gases to extinguish fire without causing damage to the environment, while protecting people, renewable energy infrastructure, energy storage systems and key equipment from various fire hazards.

Supporting growth in the wind energy sector

- **Firetrace and Apollo** manufacture automatic fire detection and suppression systems for the wind energy sector, among others, detecting or stopping small fires where they start in areas where electrical fires are more likely to occur and therefore limiting the damage caused by a fire.
- **Deep Trekker** produces submersible robots that can monitor and maintain critical underwater infrastructure. Designed to support sectors including aquaculture, maritime, and energy, Deep Trekker robots, as well with their latest unmanned surface vessel deployed solutions are increasingly used by off-shore wind farms. So, as the market for this alternative energy source grows, so too will demand for Deep Trekker's products.

Supporting the transition to electric transport

- **WEETECH's** technology tests cable harnesses used in electric vehicles to ensure the high voltage cabling is compliant with safety standards. Automated high voltage testing also protects workers testing cable harnesses.

Helping customers reduce energy consumption

- **BEA** helps to reduce customers' heat loss and energy use, while enhancing safety through their LZR®-WIDESCAN technology. With this technology, sensors allow industrial doors to close more quickly when it is safe to do so.

Supporting the circular economy

- **Ocean Insight's** recycling solution detects types of aluminium enabling it to be sorted into different grades within milliseconds. This application increases speed and reduces recycling costs, supporting the transition to a more circular economy.

Driving growth in sustainability

Climate change examples

Adapting: Providing products and services that enable businesses and societies to cope with the physical impacts of climate change.

Pivoting: Working with our customers to ensure we can continue to provide products and services as their industries transition and their needs change.

Our environmental monitoring technologies help ensure the integrity of ageing water networks where leakage presents a huge challenge. This is particularly pertinent in the context of increasing water stress and extreme weather events due to climate change.

Addressing water conservation and pollution

- **HWM**'s Fluid Conservation Systems use sensors to 'listen' for leaks in water pipes, enabling prioritisation of maintenance, helping preserve water supplies, reducing water wastage and preventing contamination. In addition, HWM's SpillSens and RadarSens are intelligent sensors that use orientation technology, similar to smartphones or radars, to monitor for unexpected changes in wastewater levels due to flooding or blockages, alerting operators of the changes and so preventing potential spillages into the environment.
- **Minicam Group** offers different solutions for pipeline inspection, maintenance, and rehabilitation. Their technology helps extend the life of ageing wastewater networks by assessing the condition of pipes and therefore enabling quick repairs. It also reduces blockages which lessens the environmental contamination caused by leakage and overflows.

Several of our companies have pivoted their products, markets and services to support their customers or harness opportunities from new markets. We are also focused on ensuring we are diversifying our businesses where we have exposure to highly impacted industries such as oil and gas.

Crowcon have identified a new opportunity to provide their products to businesses in the hydrogen infrastructure and production sector.

Cosasco's corrosion monitoring products, traditionally used within the oil and gas industries, are now being applied in other sectors such as the IT sector. As data centers aim to reduce their electricity consumption for cooling, the use of fresh air can lead to challenges associated with contamination and corrosion of various surfaces, potentially damaging valuable equipment. AirIQ offers a solution by providing data centers with the ability to monitor air quality. It measures the levels of copper and silver corrosion, as well as humidity and differential pressure levels, allowing data centers to understand the corrosiveness of the air and take appropriate measures to protect their equipment ensuring both operational efficiency and sustainability.

Oseco-Elfab had historically high exposure to oil and gas markets, but today have reduced this to less than 15% due to their active diversification strategy.

Protecting our environment

Addressing climate change – a shared approach

As set out in our latest TCFD Statement, our emissions from Scope 1 & 2 are not significant and neither have we identified material risks to our business from our Scope 3 emissions.

Yet because we recognise that our activities still have an impact on climate, particularly within our wider value chain, we are working towards Net Zero across our entire operations – aiming for Net Zero for Scope 1 & 2 by 2040 and Scope 3 by 2050.

Refreshed expectations

Our refreshed sustainability expectations, updated in 2024, require all our companies to reduce their negative environmental impacts and support people in their operations, supply chains and communities. To achieve this, we require each company to update their individual Sustainability Action Plan (SAP) annually.

This bottom-up approach ensures Halma companies have the autonomy to identify their own mid-term goals and near-term actions to reduce emissions and encourage sustainable design, while contributing to Halma Group goals.

As a Group, we make clear our minimum Scope 1 & 2 requirements for each company. These currently involve all Halma companies implementing energy efficiency measures and contributing towards our target of 80% renewable electricity by 2025.

Further to this, for Halma companies we identify as having a higher potential to contribute to our Group's overall sustainability goals, we conduct additional monitoring of progress and set more challenging minimum requirements. For some this has resulted in the creation of individual bottom-up Scope 3 decarbonisation plans during 2024.

For more information on our internal approach to executing on sustainability see page 79 of our 2024 Annual Report and Accounts.

Reducing our emissions	
Scope 1 & 2	Scope 3
These emissions are under our direct control and are a small portion of our total footprint.	These emissions are not under our direct control and contribute most of our total footprint.
We've got targets and plans in place to reduce emissions and reach Net Zero by 2040. See pages 12 to 16	We've estimated our 2020 baseline and 2024 emissions and are aiming to reach Net Zero by 2050. We are now working on building bottom-up decarbonisation plans, setting supporting interim targets, and improving our ongoing reporting capability. See pages 18 to 23

Related SDGs[1]

1. For more information on our links to the UN SDGs please see our website.

Scope 1 & 2

What does Scope 1 & 2 mean for Halma?

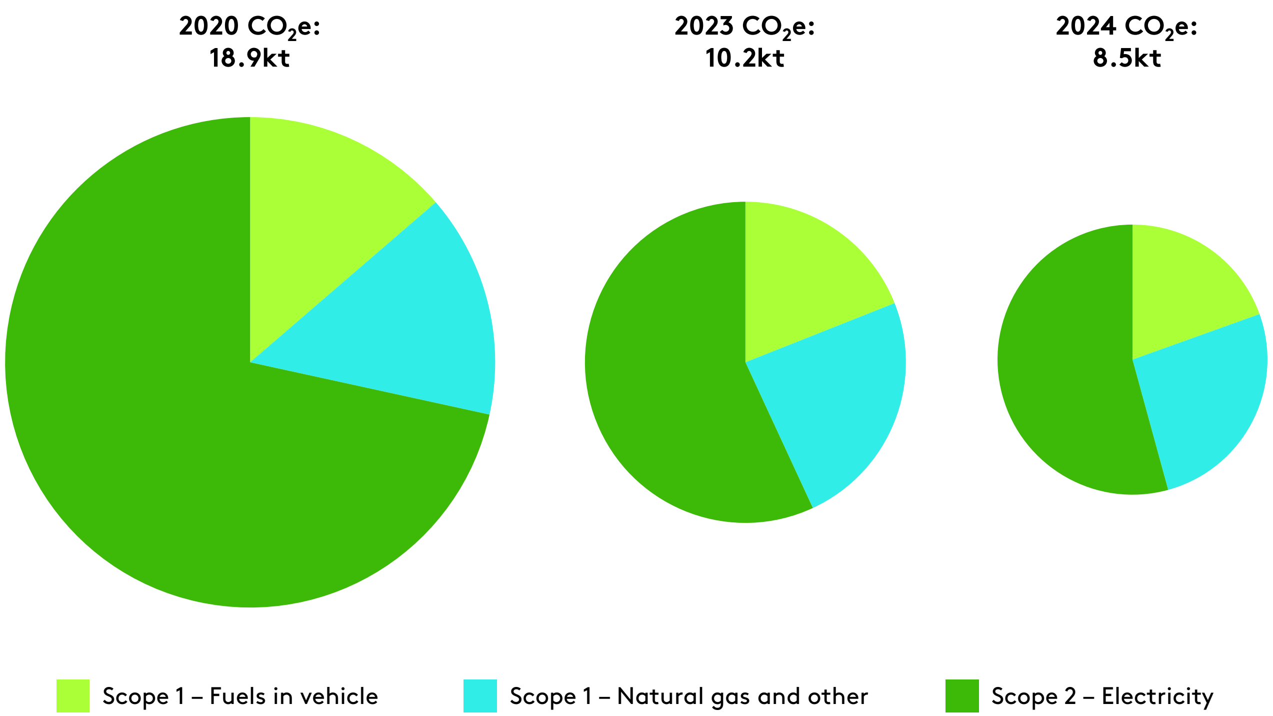
Our Scope 1 & 2 emissions profile is relatively simple, consisting of three key emission sources as shown on the image on the right. At approximately 18 ktCO_2e in our 2020 baseline year, our Scope 1 & 2 emissions are relatively low due to the asset-light nature of our operations, and only around 2% of our total baseline greenhouse gas footprint.

The progress we have made since our baseline year in terms of the absolute emissions and profile of these emissions is largely due to the ongoing move towards renewables across our operations.

We are working towards Net Zero in our own operations by 2040, and our companies are clear on the expectation to continue to accelerate towards this. With electricity consumption contributing the bulk of our emissions, each of our companies are working via their own Sustainability Action Plans to both reduce overall electricity consumption via energy productivity initiatives and mitigate emissions through purchasing and generating renewable electricity.

A full breakdown of our Scope 1 & 2 emissions is provided on the following page. See our ESG Basis of Preparation document for full details on calculation and reporting methodologies, and our ESG Supplementary Data document for further detailed reporting metrics.

Overview of our key Scope 1 & 2 emission sources



Key targets & levers for Scope 1 & 2 Net Zero

Summary of Halma Group targets

Our performance against our targets for Scope 1 & 2 emissions, energy productivity and renewables have continued to improve year-on-year, as detailed in the table below.

Key Goals and performance	2024	2023	2020 Baseline
Scope 1 & 2			
Annual: At least 4% annual energy productivity improvements from 2022 baseline[1]	19%	10%	N/A
Short term: Achieve 80% renewable electricity by 2025[2]	71%	62%	8
Medium term: Reduction in emissions by at least 42% by 2030 from 2020 baseline (aligned with 1.5ºC Science-based Target* guidance)[3] **Long term:** Net Zero by 2040[4]	55%	46%	0

Footnotes included in Appendix (i)

Key levers for Scope 1 & 2 to reach Net Zero

Our nearly 50 companies have set their own supporting targets and actions as part of their Sustainability Action Plans to reach Scope 1 & 2 Net Zero by 2040. These plans highlight some of the key actions at a company-level which are supported at a Group-level through various levers.

Company-level:

- Company-level Sustainability Action Plans & targets, including:
    - Improving energy productivity
    - Purchasing and generating renewable electricity
    - Transitioning vehicle fleet to zero-carbon
    - "Electrifying everything" and pursuing low/zero carbon heating
    - Utilising inflection points (such as premise moves)

Group-level:

- High level target and ambition setting
- Promote reductions as far as practically possible via governance, resources, support, training, sharing platforms and challenging our companies
- From 2040, to counterbalance any residual emissions with carbon removal instruments according to SBTi guidance (after emission reductions to as close to zero as possible).

Some of the challenges we expect to face in meeting our Scope 1 & 2 decarbonisation plans include the fact that most of our premises are leased rather than owned. Also, due to the decentralised nature of our business, contracts and suppliers are managed at the individual company level.

Scope 1 & 2 emissions data

Energy consumption and emissions – Scope 1 & 2

	Unit	2024	2023[5]	2020[5]
Scope 1: Combustion of fuel and operation of facilities[1]	tCO_2e	3,933	4,237	5,328
Gas reported as renewable (utilising Market-based instruments)	%	24	20	0
Scope 2 (Location-based)[2]	tCO_2e	10,721	10,459	13,278
Scope 2 (Market-based)[2]	tCO_2e	4,605	5,947	13,558
Total gross Scope 1 & 2 emissions (Location-based)	tCO_2e	14,654	14,696	18,606
Of which UK	tCO_2e	2,970	2,979	4,093
Total gross Scope 1 & 2 emissions (Market-based)	tCO_2e	8,538	10,184	18,887
Of which UK	tCO_2e	1,426	1,692	4,077
Energy consumption in MWh used to calculate above emissions	tCO_2e	55,126	56,350	62,825
Intensity measure – tonnes of total CO_2e gross emissions per £m of revenue (Market-based)[3]	tCO_2e/£m	4.1	4.9	N/A
Renewable electricity[4]	%	71	62	8

Footnotes included in Appendix (ii)

Delivery of Scope 1 & 2

Renewable energy

We have continued to make significant progress on our renewable energy targets over the last year, with increases in renewable energy purchases having the greatest impact.

As of 2024, we have increased our renewable energy consumption to 71% of electricity consumed from a baseline of 8% in FY20 (2023: 62%). Electricity generated by on-site solar grew by 19% year on year and represents 6% of Group renewable electricity (2023: 6%).

Nine Halma sites from companies including, inter alia Ocean Optics, Castell, Avire, Ramtech, Meditech and Halma China installed on-site solar in this financial year.

Our overall renewable electricity consumption continues to be dominated by renewable electricity tariffs (largely backed by Energy Attribute Certificates (EACs)) and unbundled EACs, accounting for 94% of the total.

On-site renewable energy generation – 2024 examples

Ramtech, a UK based wireless solutions company Ramtech have installed 59 individual solar panels, signifying a substantial leap forward in their approach to energy consumption. Projections estimate an annual output of 22,900 kWh.

Meditech, a Hungary based business installed 125 roof-mounted solar panels which are expected to cover 100% of Meditech's current energy consumption.

Ramtech's new solar panels (Picture credit: Ramtech)

Further information on our renewable electricity approach is provided in our ESG Basis of Preparation.

Delivery of Scope 1 & 2

Increasing energy productivity

This year we saw a c.19% increase in revenue (cumulative from our FY22 baseline adjusted to remove the effects of currency movements and acquisitions) while energy consumption (adjusted on the same basis) remained relatively flat.

Further decoupling energy consumption from revenue reflected various enhancements in energy efficiency amongst our companies as indicated below. We were pleased to see an ongoing focus on energy productivity among most of our companies.

Examples of energy efficiency measures undertaken during the year by our companies include enhancements to operational efficiencies, LED lighting and motion sensors, improving HVAC controls, removal of inefficient equipment and installation of heat exchangers.

Energy productivity and efficiency – examples from 2024

Hanovia's electricity usage decreased at this company due to installation of LED lights throughout their building.

Navtech improved HVAC efficiencies.

Cosasco improved HAVC and compressor efficiencies.

Volk improved overall operational productivity resulting in enhanced energy efficiency.

Static Systems improved operational productivity within some energy intensive processes, resulting in overall energy savings.

Electrification and reduction in natural gas consumption – examples from 2024

Medicel moved to fully electric fleet vehicles, including a cargo-bus, and reduced gas and electricity usage by using the waste heat from their machines to heat factories and switching to a heat pump.

Keeler replaced their old boilers with heat exchangers, thereby considerably reducing their natural gas usage.

Picture credit: Sentric

Scope 3

Estimating our Scope 3 emissions

Our Scope 3 baseline and 2024 update

Our Scope 3 emissions comprise around 98% of our total Scope 1, 2 & 3 2020 baseline.

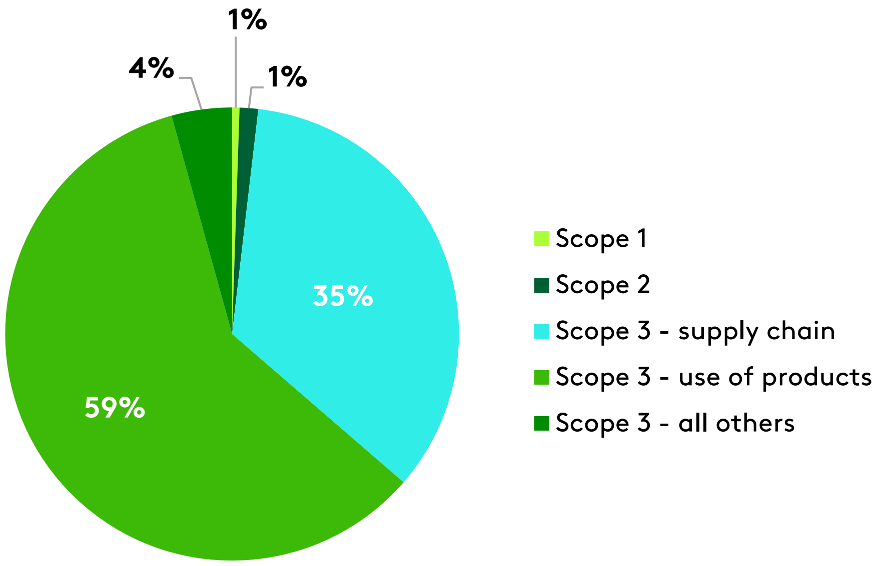
We published our 2020 Scope 3 baseline in 2023. This was a highly complex exercise due to the decentralised nature of our business, requiring a screening exercise followed by collation of data and estimates across more than 45 separate companies.

In this process we identified two main Scope 3 categories relevant for Halma:

Category 1: purchased goods and services	Emissions are generated by the purchase of goods and services across our supply chain. We rely on the spend-based method to estimate these emissions. We have included upstream transportation and distribution emissions in this category as our data does not enable us to fully separate these two categories.
Category 11: emissions from the use of products[1]	Emissions from use of sold products ("in-use emissions") almost all arise when our customers use electricity to run our products. While our products are generally relatively small power consumers, long lifetime assumptions drive the scale of the baseline.

In 2024 we developed a methodology for making a high-level annual estimate of Scope 3 emissions (shown on following page), in an effort to avoid undue cost and effort for limited useful additional information provided for our stakeholders. We currently expect to carry out a fuller bottom-up modelling of emissions, including an update to our 2020 baseline, on a periodic basis. We recognise the limitations in this methodological approach, but we believe the most effective allocation of our resources is to creating company-level decarbonisation plans that our companies can implement with conviction.

Key sources of Scope 3 emissions (2020)



The calculation and reporting methodologies we used for both our baseline and our FY24 estimate can be found in our ESG [Basis of Preparation](#) document available at www.halma.com.

1. Approximately 60% of product use emissions relate to one company, comprising c.1% of Group revenue, which sells products which have high energy usage to meet customer needs. As expected, supply chain emissions are larger than in-use emissions for most of our other companies.

Scope 3 estimated emissions data

Scope 3 category	2024 emissions estimate (tCO_2e)	2024 data methodology	2020 emissions estimate (tCO_2e)	2020 data methodology[1]
1 & 4: Purchased goods and services (incorporating upstream transportation and distribution)	405,558	Hybrid bottom-up / scaling approach – see notes in Appendix (iii)	336,740	Detailed estimate
2: Capital goods	3,660	2020 estimate scaled by capex	3,721	Detailed estimate
3: Fuel and energy-related activities not in Scope 1 & 2	1,583	Calculated annually	3,308	Calculated annually
5: Waste generated in operations	1,872	Calculated annually	1,644	Calculated annually
6: Business travel	16,240	Calculated annually	16,525	Calculated annually
7: Employee commuting	11,881	High level screening estimate scaled on employee numbers	10,722	High level screening estimate
11: Use of sold products	612,000	Hybrid bottom-up / scaling approach – see notes in Appendix (iii)	579,147	Detailed estimate
12: End of life treatment of sold products	398	2020 estimate scaled by revenue	270	High level screening estimate
Total estimated Scope 3 emissions	**1,053,223**		**952,077**	

Key changes between 2020 and 2024

The c.11% increase in Scope 3 emissions in 2024 from our 2020 baseline reflects our methodology which largely relies on scaling our baseline emissions in line with growth in inflation adjusted revenues and operating costs. More granular data based on current emissions factors is only supplied by a small number of companies.

The mix of revenue and operating costs growth impacts the estimates, along with data improvements in 2024 compared to the baseline. We were also pleased to see one of our larger contributors to products' use phase emissions increasing the proportion of sales from more energy efficient products.

Our targets and plans for Scope 3 decarbonisation

Our 2020 Scope 3 baseline estimate confirmed our assessment that these are not expected to constitute a material risk for Halma. However, we recognise the need for us to work towards Net Zero for our entire value chain.

To provide a strong direction internally and show commitment externally **we have set our ambition to reach absolute Net Zero for our Scope 3 emissions by 2050.**

This long-term ambition encompasses all categories of Scope 3, and we expect that we will aim for the greatest amount of decarbonisation possible before any use of offsets.

As we develop our transition plan to understand more about our levers and dependencies, we will determine whether we can align with the SBTi's standard for Scope 3 Net Zero, which includes the requirement for a 90% reduction in absolute emissions (from our 2020 baseline) followed by permanent neutralisation.

As such, we have a multi-year approach to developing bottom-up Scope 3 decarbonisation plans with our companies, to enable us to work towards setting short-term Scope 3 targets and developing our Group-wide transition plan.

Our current Scope 3 decarbonisation approach

Our formal transition plans are still under development, considering guidance from the Transition Plan Taskforce and TCFD. However, this section outlines our current direction of travel and what we have learned from our progress this year. These learnings and our approach are expected to continue to change as we execute on our near-term activities.

Near to mid-term objectives:

- Our ambition is to establish decarbonisation plans to 2030 at company level, where most feasible and relevant, to:
    - ensure initial real-world emission reduction actions are underway
    - assist us in setting interim targets to support our 2050 Scope 3 Net Zero commitment
    - understand key decarbonisation levers and challenges and identify the key dependencies and assumptions that will underpin our transition plans and potential alignment of our 2050 Net Zero commitment with the SBTi's guidance
- We aim to balance a pragmatic and achievable approach for our largely small to medium-sized companies with the transition plan and reporting requirements expected by external stakeholders.

Our multiyear approach to bottom-up decarbonisation planning:

- In 2024, five companies, representing a significant portion of our 2020 estimated emissions baseline, created initial high-level Scope 3 decarbonisation plans to 2030 utilising Group guidance and tools
- In 2025, using the learnings from the first five companies, we are building on the initial decarbonisation plans and engaging with a larger group of companies, covering the majority of estimated baseline emissions.
- We currently expect to expand engagement on Scope 3 decarbonisation planning to remaining companies, where relevant and feasible, from 2026 onwards.

Delivering on Scope 3

Case study: Leading by example – The Halma Functional Network

In 2023, water analysis technology experts Palintest formed a team of Halma's Functional Networks to share knowledge and best practice. Four Halma businesses worked together to develop a new sustainable design toolkit to offer guidance on sustainable design.

As the project lead at Palintest explained **"Our aim was to develop a practical approach that would enable engineers across Halma companies to engage with sustainable design in their existing products to help maximise benefit for their business while minimising environmental impact."**

Since then, the new sustainable design toolkit has been used by several Halma companies to help score their product development and design activity against the pre-agreed sustainability criteria.

The process consists of seven steps or 'gates' that act as an overlay to the standard product development procedure. The new approach covers all stages from concept proposal to business case, as well as product development validation, production, launch and importantly project review. Ensuring that any new project meets its desired goals.

By using existing design guides, sustainability influenced design concepts and full lifecycle analysis of products, this new sustainable design toolkit can be used for both the development of new products and the improvement of existing products across the Halma group of companies.

Further examples of company approaches are provided on the following pages.

Delivering on Scope 3

Case studies – sustainable product design

At **Keeler**, the entire product range was put up for consideration using their 'New Product Innovation' process, with three products initially nominated for renewal or sustainable redesign. This included changes to recyclable product packaging and removal of single-use plastics, the replacement of the arc light bulbs (typical in an ophthalmoscope) with an LED alternative and changes to the single-use tonometer prism resulting in smaller pack-sizes and more efficient transport.

Fortress Safety designed a new casing for their flagship amGard product range using recycled aluminium instead of the traditional zinc. At 60% lighter and crucially 100% recyclable, the new design contributes to lowering carbon emissions both in manufacture and transportation. Further testing of the finished product is continuing with a view to a market launch in 2025.

Palintest developed a new version of their Pooltester product, replacing the thermoplastic elastomer (TPE) plastics in the old model (a high carbon impact) with less impactful recycled plastic in the new design, a large portion of which was from recycled bottles.

Crowcon redesigned some of their gas detectors to extended life spans, reducing the frequency of replacement and so reducing waste. A further benefit was the removal of lead, contributing to a global push for reductions in the volumes of lead in circulation. Finally, the company's fixed detector products have all been designed to be fully disassembled at end of life to encourage and enable recycling.

Case studies – logistics and supply chain

Fire specialist, **Advanced**, reviewed their ordering and shipping processes for printed circuit boards and adjusted their ordering from a monthly cycle to quarterly, as well as switching delivery from air to sea. This helped reduce emissions from transportation with additional financial savings.

Keeler has been working to reduce unnecessary movements of goods between Italy, USA and UK, as well as looking for opportunities to move from air to sea freight. Since 2022 Keeler has made a logistics switch from air to sea for their Binocular Indirect Ophthalmoscope and Tonoclear products and is now shipping directly from China to the USA, a change that has reduced air miles and emissions and is estimated to reduce emissions by around 25 tCO_2 per year.

Picture credit: Keeler

Scope 3

Looking ahead

As set out in the box on page 20, we have a multiyear approach to developing bottom-up Scope 3 decarbonisation plans with our companies, to enable us to set short-term Scope 3 targets and develop our Group-wide transition plan. In the meantime, the initial five bottom-up decarbonisation plans identify multiple actions these companies can take in the period to 2030. Whilst this is still a work in progress, for illustrative purposes, a selection of the key levers identified in their plans are highlighted below:

- Research and development into alternative technologies, modes and models
- Supplier sustainability programmes and commitments
- Materials selection in design, including recycled content
- Size and shape optimisation for components
- Integration of lifecycle assessment into design
- Design for energy efficiency
- Transport modes and logistics optimisation

As expected, the companies have identified challenges that introduce significant uncertainty and limit visibility on a trajectory to 2050 Net Zero. These include relative lack of influence over suppliers and customers, expected levels of organic growth making absolute emissions reductions challenging, and limitations to product design changes due to the high level of regulation and certification of our products.

In addition, achievement of our 2050 Net Zero commitment is likely to be highly dependent on many factors outside our control or influence. Some of these dependencies surfaced by the initial five bottom-up decarbonisation plans include sector-wide decarbonization of multiple globally-traded components (such as electronics, plastics and metals), grid decarbonization, customers' switch to renewable electricity and supportive product standards and policy environments.

Appendix

Appendix (i)

Footnotes for Scope 1 & 2 GHG and Energy Performance Table

1. Revenue/energy consumed. Annual straight-line increase from 2022. Due to the inclusion of this metric in remuneration, it is calculated on a different basis to Scope 1 & 2 emissions and renewable electricity percentage. Revenue is adjusted to a constant currency basis, and both revenue and energy are adjusted to exclude all acquisitions in the current and prior period. This target was set using the EP100 initiative minimum commitment (to double energy productivity over 25 years).
2. Current year renewable % reflects the full year impact of acquisitions and disposals made during the period. Comparative figures are not updated for the impact of acquisitions and disposals made in subsequent periods.
3. From 2020 baseline. Market-based calculation of Scope 2 emissions. This target is aligned with guidance from the Science Based Targets initiative (SBTi) and is an absolute measure aligned with the non-sector specific 1.5-degree emissions pathway. This target has not been verified, as SBTi verification requires our target to include Scope 3.
4. Market-based calculation of Scope 2 emissions. Our Net Zero target is aligned with guidance from the Science Based Targets initiative (SBTi). We will reach Net Zero by reducing emissions as much as is feasible before using carbon removal instruments. We do not expect to utilise carbon offsets, as set out in our Emissions Reduction Report at www.halma.com.
5. Not aligned with guidance from the Science Based Targets initiative (SBTi). Please see further commentary in Metrics and Targets section above.

See our ESG Basis of Preparation document for full details on calculation and reporting methodologies, and our ESG Data Supplement for a full breakdown of Scope 1, 2 & 3 GHG emissions.

Appendix (ii)

Footnotes for Scope 1 & 2 emissions data table

1. Included in Scope 1 are GHG emissions from direct fuel combustion at our sites, refrigerants, and from fuel use in our company-owned or leased vehicle fleet.
2. Electricity purchased for our own use. Market-based is net of market instruments.
3. Prior to FY24, we included Scope 3 emissions, now excluded as we report against all relevant Scope 3 categories, which includes estimates. Prior to 2021, we did not show market-based Scope 2 emissions. In line with our science-based target, which is calculated using the market-based approach, we have transitioned to showing our intensity measure based on the market-based method. We do not show a recalculated intensity measure for our 2020 baseline.
4. Percentage of total electricity usage, including generated on-site. Current year renewable % reflects the full year impact of acquisitions and disposals made during the period. Comparative figures are not updated for the impact of acquisitions and disposals made in subsequent periods.
5. Our Scope 1 & 2 (market-based) GHG emissions for the year ended 31 March 2020 form the baseline for our Science-based target. Given the acquisitive nature of Halma, we have chosen to apply a 5% prior years threshold for the structural change trigger of acquisitions and disposals. We also apply a 5% threshold for error adjustments for prior years, this year we did not reach the 5% errors threshold. We do not recalculate Scope 3 annually calculated emissions for acquisitions and disposals, or errors. This year the impact of our acquisitions and disposals did reach the 5% threshold for recalculation.

See our ESG Basis of Preparation document for full details on calculation and reporting methodologies, and our ESG Data Supplement for a full breakdown of Scope 1, 2 & 3 GHG emissions.

Appendix (iii)

Notes & FY24 methodologies for key Scope 3 categories

We created a FY24 estimate of both use of sold products and purchased goods and services (including upstream transport & distribution) by combining:

- a more granular modelling approach to a limited data set from five of our operating companies who have engaged with creating Scope 3 decarbonisation plans during FY24
- a high-level scaling of our FY20 baseline for the remaining emissions

Category 1 & 4: The granular approach for five companies included applying updated spend-based emissions factors (sourced from EORA MRIO) to the top 20 suppliers of these companies. The implied updated average emissions factor for the top 20 suppliers was then scaled to the remaining spend for each of these five companies. The granular modelling of top 20 suppliers comprised approximately 16% of our estimated FY24 footprint for category 1 & 4. The approach for the remaining companies involved scaling FY20 emissions by the growth in inflation-adjusted operating costs over the period.

Category 11: The granular approach for five companies included applying updated electricity grid emissions factors (sourced from IEA), on a regional basis where available, to energy used by key product categories. Assumptions around power draw, utilisation and lifetime were held constant from the baseline, however better data based on regional product volumes was used where available. The granular modelling comprised approximately 67% of our estimated FY24 footprint for Category 11. The approach for the remaining companies involved scaling FY20 estimated emissions by growth in revenue, adjusted for internal estimates of price increases, over the period.

Key limitations and assumptions within this hybrid approach include: acquisitions not included in the baseline (FY23 and FY24) have not been added to either FY24 estimate or baseline; the FY24 emissions estimation for the majority of companies is dependent on inflation and price increase assumptions and does not include updated FY24 spend-based or grid emissions factors and therefore may not reflect the results that could be expected from a full bottom-up modelling exercise; improvements in data quality and modelling for the granular approach have not yet been reflected in our baseline due to current data limitations; and limitations and assumptions from our baseline estimate continue to be relevant.

See our ESG Basis of Preparation document for full details on calculation and reporting methodologies, and our ESG Data Supplement for a full breakdown of Scope 1, 2 & 3 GHG emissions.