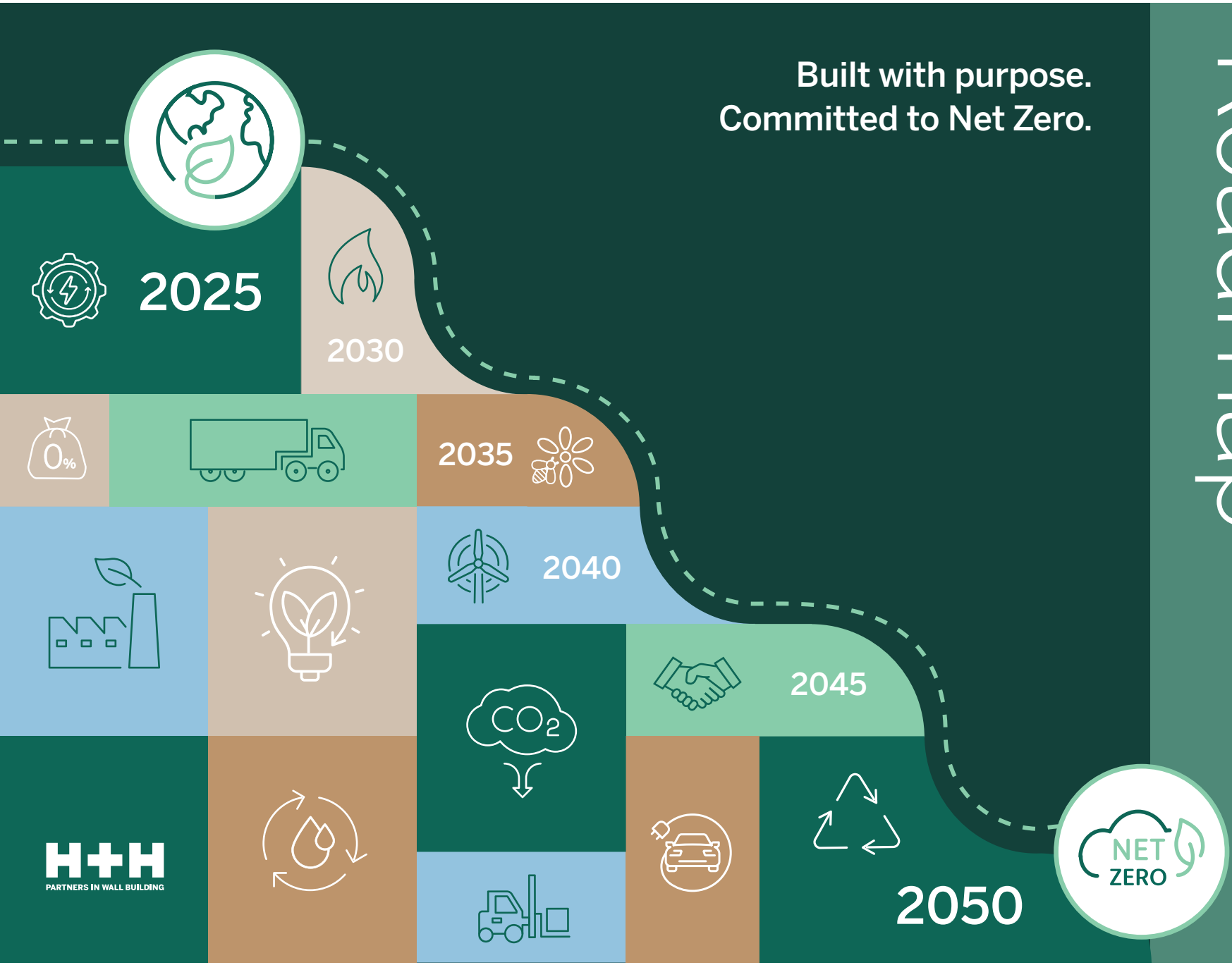
# H+H UK Roadmap

## Built with purpose. Committed to Net Zero.






# Building a Sustainable Future

H+H UK Ltd is a well-established manufacturer with over 75 years of experience, recognised as a leader in sustainably produced materials for the construction industry. Driven by a clear commitment to achieving net zero carbon emissions by 2050, the company has integrated ESG (Environmental, Social, and Governance) principles across all areas of its operations, from supply chain management and manufacturing processes, to initiatives that promote biodiversity.

The company's UK Roadmap outlines strategic efforts to reduce emissions and improve sustainability performance. These initiatives focus on raw material sourcing, technological upgrades, land stewardship and close collaboration with both customers and suppliers. Notably, 85% of H+H's Scope 3 emissions are linked to raw materials, prompting active engagement with suppliers to drive down carbon impact throughout the value chain.

In 2018, H+H upgraded its Borough Green facility, making it the most efficient Aircrete factory in Europe. Continued ongoing capital investments underscore the company's dedication to remaining at the forefront of sustainable construction. These efforts have positioned H+H Aircrete as the preferred wall product for housebuilders, praised for its structural, thermal and eco-friendly properties.

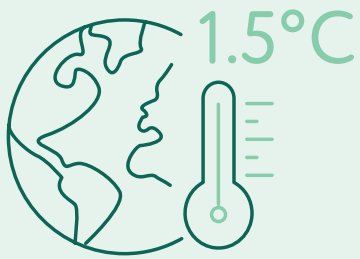
Since 2019, H+H has been actively tracking carbon reduction progress, with significant gains already made in Scopes 1 and 2 emissions. The goal: a 50% reduction in total emissions intensity across Scopes 1, 2, and 3 by 2030.

H+H UK's mission is clear—work collaboratively to reduce energy demand in homes and minimise embodied carbon, building a truly sustainable future for the construction industry.

Calum J Forsyth

Calum Forsyth
Managing Director, H+H UK Limited

# Our commitment to sustainability




H+H International was the first manufacturer of aircrete to have science-based targets approved in line with the ambitious **1.5°C global scenario**. Our carbon emission reduction targets are third-party approved and in line with the climate goals of the Paris Agreement: to limit global warming to well below 2°C above pre-industrial levels.

H+H International has committed by 2030 to reduce absolute Scope 1 and 2 greenhouse gas (GHG) emissions by 46%, from a 2019 base year and to reduce Scope 3 emissions by 22% per $m^3$.

H+H UK's own goals support this ambitious commitment as we plan **by 2030 to reduce our emissions intensity* by 50%**, including Scopes 1, 2 and 3.

*Emissions intensity: emissions per unit of product measured in $kgCO_2e/m^3$

## H+H International Goal



46%

**reduction in absolute** Scope 1 and 2 GHG emissions by 2030

22%

**per $m^3$ reduction** in Scope 3 emissions by 2030

## H+H UK Goal




50%

**reduction in emissions intensity** for Scopes 1, 2 and 3 by 2030

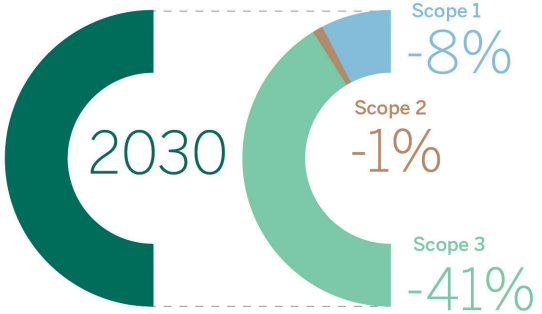
## H+H UK Emissions Intensity Roadmap

Baseline Intensity
100%




Target Intensity
50%

Reduction achieved by



# Current progress

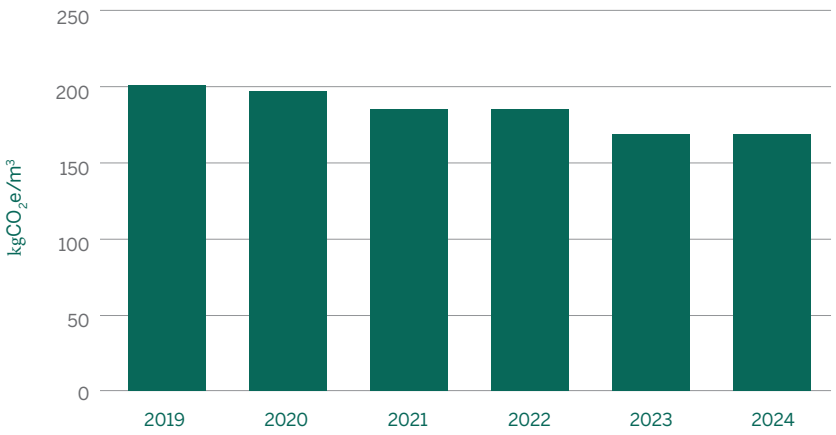
At H+H UK, we believe that a **cradle-to-grave perspective** is essential to truly assess a product's environmental impact. Looking at just one stage in the process doesn't provide the full picture.

As part of a broader supply chain, our own manufacturing accounts for only a portion of our products' embodied carbon. That's why we actively collaborate with our cement and lime suppliers to support their decarbonisation goals.

We've set an ambitious roadmap for reducing carbon emissions within our manufacturing operations. While change won't happen overnight, we're committed to meeting key milestones along the way. Our short-term target is to cut carbon emissions per block by 50% by 2030 (Scopes 1, 2, and 3), using 2019 as our baseline.

We've already made measurable progress. Our second published roadmap builds on these achievements, and current efforts, both in-house and with supply partners, are expected to drive further significant reductions in $CO_2$ emissions.

**Current Progress: Annual Carbon Emissions (Combined Scopes 1, 2 & 3)**




We join our parent company in our commitment to achieve net-zero emissions in our operations and products by 2050.

## Scope 1

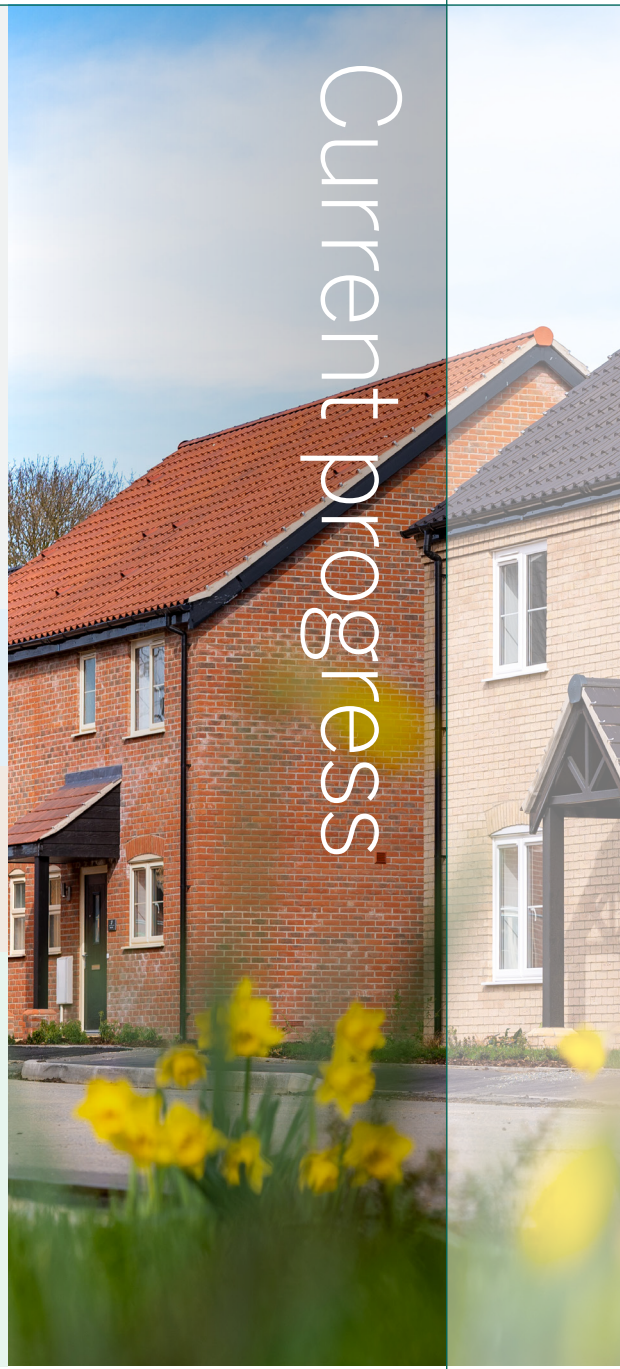
Direct emissions from sources owned and controlled by H+H UK.

## Scope 2

Indirect emissions that are generated on our behalf, e.g. from the production of purchased electricity.

## Scope 3

Emissions that the company is indirectly responsible for, e.g. from the manufacture of raw materials and distribution of finished goods.



# Reducing our Scope 1 emissions



## Gas efficiency improvements

All primary boilers are **hydrogen compatible** and have significantly

reduced gas usage,

equating to a reduction in $CO_2$ emissions of over

600

**tonnes annually** and **NOx emissions reduced by**

30%.



## Process efficiency optimisation

We are improving the

utilisation of waste energy

in the production of Celcon Blocks to **reduce our energy demand.**

This and other process changes will be adopted across

all sites.



## Electric vehicle rollout

94%

**of our car and van fleet is hybrid** at a minimum.

**8 forklift trucks** changed from diesel to

electric.

All new clamp trucks feature more efficient diesel engines and are **HVO compatible.**

Scope 1 emissions

# Reducing our Scope 2 emissions



## Pollington wind turbine

We generated

17%

**of our entire UK electricity consumption** in

2024 via our wind turbine.



## Using 100% renewable energy

100%

of the **electricity needed to manufacture Celcon Blocks** is acquired from

renewable sources.



## Improving electrical efficiency

**Replacing lighting** with more energy efficient

LEDs

**is reducing our electricity** usage by

200,000

**kWh each year.**

Scope 2 emissions

# Scope 3 emissions LIME

## Reducing our Scope 3 emissions

In 2024, at least 85% of the carbon emissions associated with H+H aircrete were attributed to our value chain, with the biggest contribution from lime and cement.

Reducing Scope 3 emissions is instrumental in achieving our carbon reduction ambitions. **To reach our 2030 goal, Scope 3 is expected to contribute a 41% reduction to our total emissions intensity.**

We are proud to be working closely with our suppliers who have robust plans in place to reduce their own emissions through innovative carbon reduction schemes.

## Singleton Birch

**Singleton Birch is a**

member of MPA Lime

which represents the UK's manufacturers of lime products. MPA Lime members have an **ambitious shared goal** to reach

net negative $CO_2$ emissions by 2040.

Singleton Birch is also taking an **innovative approach** to reducing carbon emissions by partnering on several projects including plans to build a

Hydrogen Electrolyser

in conjunction with **Centrica Energy Storage Limited** to allow partial fuel switching of their kilns to

Green Hydrogen.

**In 2024,**
Singleton Birch produced

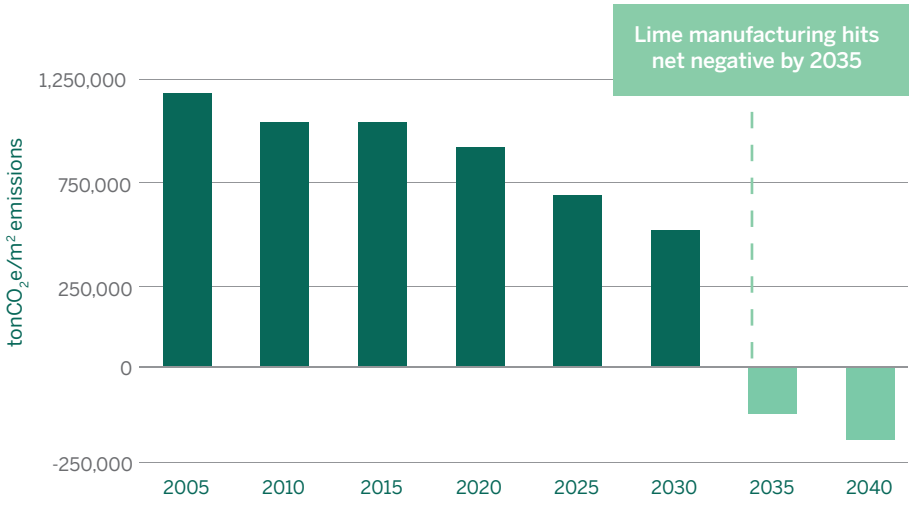
99.4%

of their electricity through

anaerobic digestion,

a process by which organic matter is broken down to **produce biogas for electricity,** reducing the carbon emissions associated with electricity usage.

### MPA Lime Net Negative 2040 Roadmap



# Scope 3 emissions
## CEMENT

## CEMEX UK

In line with H+H International, **CEMEX has validated**

2030

science-based targets to meet a

1.5°C scenario.

In Europe and from a 1990 baseline **CEMEX has a target**

to reduce by

55%

**its $CO_2$ emissions** ($kgCO_2e$/tonne cementitious material).

In the UK, CEMEX uses

alternative fuels

to part-replace fossil fuels used in the production of its cement, with a

78%

(on mass or energy basis) **alternative fuel usage rate.**

41%

reduction achieved

in $CO_2$ emissions ($kgCO_2e$/tonne cementitious material) **in the UK in**

2022.

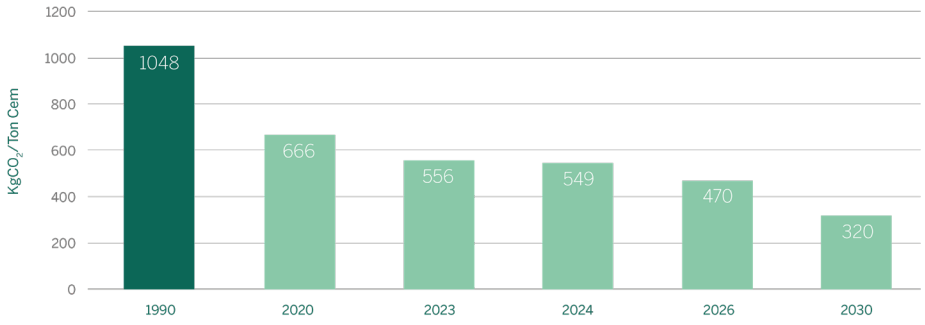
Climafuel®

is used along with other alternative fuels at CEMEX UK's Rugby Cement Plant. The **biomass content of Climafuel® means**

GHG emissions

are significantly reduced, improving the embodied carbon of its cement products.

**CEMEX $CO_2e$ per ton of Cementitious Material (All Products)**



# Reducing the impact of our operations

In addition to reducing our carbon emissions, H+H UK is committed to reducing the impact of our operational processes with regards to **water usage, waste generation and the utilisation of packaging materials.**

H+H UK recognise that our procurement decisions will have impacts on the wider environment. As a result, we endeavour to maximise the use of recycled and recyclable packaging materials, thereby reducing demand on virgin plastics.

## Water

We currently

recycle 60%

of our fresh water and have **goals to reduce water intensity, minimise mains water usage** and **further improve water recycling.**

We can take

over 60%

of our water from the **borehole and canal** in line with our water extraction permits which avoids the carbon emissions associated with using processed mains water.

## Waste

0%

Since 2022

Zero waste to landfill policy.

When there is **waste aircrete** produced from the manufacture of Celcon Blocks,

100%

is recycled.

## Packaging



# Environmental Product Declarations (EPDs)



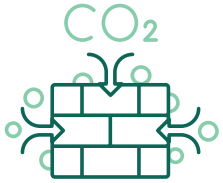
## EPDs

**EPDs are independently verified Life Cycle Assessments (LCAs).**

They provide the building blocks for comparing the whole life environmental performance of a product or whole projects in terms of environmental impact.

H+H UK are using LCA tools to track and forecast the decarbonisation impacts of our production processes and supply chain, supporting improvements in our EPD values and helping us stay on target towards achieving our decarbonisation ambitions.

- ✔ First **H+H UK Product specific verified EPD** published Q2 2024
- ✔ Other products in range available during 2025




## Embodied carbon

All construction products must declare Product Stage (A1-A3), End of Life (C1-C4) and Beyond (D) covering recovery, re-cycling and re-use. Any product containing biogenic carbon CANNOT omit stages C1-C4 and D (e.g., timber products with older EPDs do this and ignore release of sequestered carbon at stage C). Newer timber EPDs do give values at Stage C (as they must) but the impact is played down by industry marketing which only refer to upfront carbon Whole Life Carbon Assessment for buildings will consider all stages.

- ✔ Over 50% of the embodied up front (cradle to building completion) carbon associated with building with **H+H blocks is recaptured by a process of re-carbonation (stage B),** during the buildings in use phase
- ✔ **True comparison** between different materials used for build must be based on **Whole Life Carbon Assessment** to include all stages including “in use” and “end of life” (when carbon sequestered in timber products is released)



As aircrete houses are designed to last well over a 100 years, the need for recycling is unlikely to arise for many decades. In the meantime, their potential to absorb carbon dioxide through re-carbonation remains significant.

# What's next for H+H?

Explore
## alternative
transport fuels
throughout our distribution network.

Establish
## hydrogen
**compatibility at our plants:**
our new gas burners are compatible with hydrogen as a base fuel.

Explore the incorporation of more
## eco-friendly
raw materials
**in our production process.**

Continue to investigate the
**use of additives to**
## reduce
our water demand.

**Continue with our**
biodiversity
## action plan
to protect and enhance the natural environment and biodiversity at our plants.

Move forward with our
**participation in hydrogen**
## consortiums,
currently East Coast Hydrogen in the north of the country and Capital Hydrogen in the south.

### Accreditation & Certification

Environmental Management System

Quality Management System

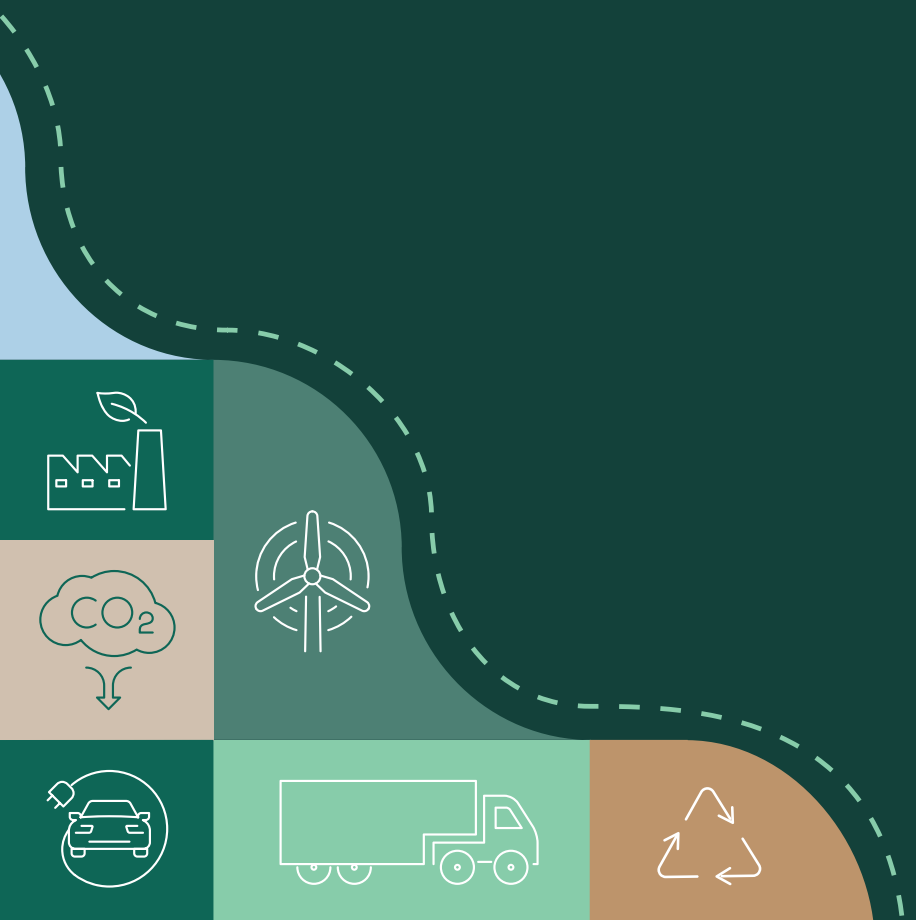
Energy Management System

Occupational Health & Safety Management System

## Forward Looking Statements

This Sustainability Roadmap contains forward-looking statements. Statements are subject to risks and uncertainties as various factors, many of which are beyond the control of H+H, may cause planned developments and actual results to differ materially from the expectations expressed here.

H+H is not liable for any direct, indirect, or consequential damages whatsoever resulting from loss of use, data, or profits, whether through action of contract, negligence or other action arising from or in connection with the use of information in this document.




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