



# Solutions for a sustainable future

CRH 2022 Sustainability Performance Report





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# Inside this year's report

At CRH, we recognise the need to change what is built and how we build it. In our 2022 Annual Report, available on [crh.com](https://www.crh.com), we introduced our new sustainability framework which outlines how we will create value for all by developing solutions for a sustainable future. In this 2022 Sustainability Performance Report, we are providing further detail on how we are addressing the global challenges of decarbonisation, waste and water and driving our strong performance across material sustainability areas, thereby helping to improve the quality of the world we live in.

## Navigation

Look for this icon to find out additional information on a specific topic



Look for this icon to find more information on CRH, our businesses and our sustainability performance



Look for this icon for more information on additional reports and assessments, available on [crh.com](https://www.crh.com)



Look for this icon to find out more information on our targets and ambitions



Our report has been independently assured every year since 2005.

# 2022 performance highlights

Sustainability is deeply embedded in all aspects of our business.

In 2022, we continued to make progress in decarbonising our business, innovating to improve circularity and preserve resources, advancing climate resilience in the built environment and strengthening our inclusive and diverse culture.



## DECARBONISATION

In early 2023, the Science Based Targets initiative (SBTi) validated our revised targets in line with the updated 1.5°C science-based framework which now equate to a 30% reduction in absolute carbon emissions by 2030 (from a 2021 base year).

**7%** year-on-year reduction in absolute carbon emissions<sup>1</sup>

**1.0kg/\$** revenue greenhouse gas emissions Scope 1 and Scope 2<sup>2</sup>

Read more on pages 16 to 24



## NATURAL WORLD

In 2022, we advanced our focus on environmental action across our locations and developed our biodiversity approach to preserve and enhance biodiversity and the natural world.

**c.100%** of our locations have restoration plans in place

Read more on pages 36 to 42



## WASTE

Circularity is a growth opportunity for our business and we continue to work with our customers in the design, delivery and application of circular, sustainable products and solutions.

**42.4m** tonnes of alternative fuels and materials recycled

Read more on pages 25 to 30



## PEOPLE AND COMMUNITIES

In 2022, we continued to invest in health, safety and wellbeing and focused on strengthening our inclusive workforce.

**94%** accident-free locations

**15%** women in senior management

Read more on pages 43 to 57



## WATER

In 2022, we increased recycling and conservation of water in our own operations, as well as strengthened our portfolio of products and services that help advance solutions to solve global water challenges.

**c.140bn** litres of water saved by recycling at our locations

**47%** revenue from products with enhanced sustainability attributes, which includes concrete products used in flood defences and stormwater systems

Read more on pages 31 to 34



## RESPONSIBLE BUSINESS

In 2022, we continued our focus on strong governance, applying robust legal and ethical business practices across the Group and further reinforced our approach to human rights.

**c.31,500** employees trained in Code of Business Conduct

Read more on pages 58 to 63

<sup>1</sup> This includes our Scope 1 and Scope 2 absolute carbon emissions

<sup>2</sup> Scope 1 and Scope 2 CO<sub>2</sub>e emissions

# A message from our Chief Executive



At CRH, we recognise the need to change what is built and how we build it, as well as addressing the challenges facing our own business and industry. We are continuously focused on advancing the performance of our business, which positions sustainability matters front and centre, as we accelerate the delivery of sustainable solutions for our customers, that build, connect and improve our world, both now and in the future.



**Albert Manifold,**  
Group Chief Executive

## Delivering sustainable solutions

As a leader in our industry, we are embracing our responsibility to society. Our new sustainability framework sets out the actions we need to take to help address the hard to solve problems for society that are of rising importance, namely decarbonisation, waste and water. Throughout 2022, we continued to evolve our business and solutions strategy to ensure we can meet the needs of our customers and help address the challenges facing our world. Our sustainable solutions are the driving force of future growth in CRH and will allow our business to reach its full potential, fuelling our innovation, creativity and entrepreneurship, while helping our customers to transition to low-carbon products.

## Protecting our people

The safety of those working for CRH continues to be our number one priority. Very regrettably, there were five reportable fatalities in 2022 involving one employee and four contractors. We thoroughly investigated each incident and the Board and SESR Committee received detailed reports on the background circumstances and root causes in each case. We also shared lessons learned across the Group and with contractors. We continue to invest in safety initiatives and technologies, with the overall aim of realising a culture of safety and wellbeing while working towards zero harm.

As the conflict in Ukraine escalated in February 2022, our immediate priority was ensuring the safety and security of our colleagues and their families. Our teams on the ground worked around the clock to assist CRH employees and their families reach safer locations. The courage being shown by the Ukrainian people and our own employees in the darkest of days has been extraordinary. I am endlessly proud of the efforts and generosity of our CRH family and the ongoing hard work to support our communities in need.

## Decarbonisation

At CRH, we are taking climate action seriously and are committed to decarbonising our business at every level. By accelerating existing decarbonisation levers and investing in new technologies we are driving the transition towards net-zero. In early 2023, the SBTi validated our revised targets in line with the updated 1.5°C science-based framework which now equate to a 30% reduction in absolute carbon emissions by 2030 (from a 2021 base year). As we progress towards achieving net-zero by 2050, we see an opportunity to drive an increase in the demand for innovative, low-impact products and solutions that help to mitigate and adapt to the impacts of climate change.

## Driving inclusion and diversity

We stand together for inclusion and diversity, constantly striving to become better allies and empower each other to be the best version of ourselves. In 2022, we continued to deliver our Inclusion & Diversity (I&D) strategy. I&D is embedded at each level of our organisation, overseen by our Global I&D Council with additional Councils and committees at operating company level providing support. We are proud to cultivate a work environment that encourages everyone to be their authentic selves. It has never been more important to embrace differences, seek out alternative views and hear the diverse voices that make up our global business.

## Looking forward

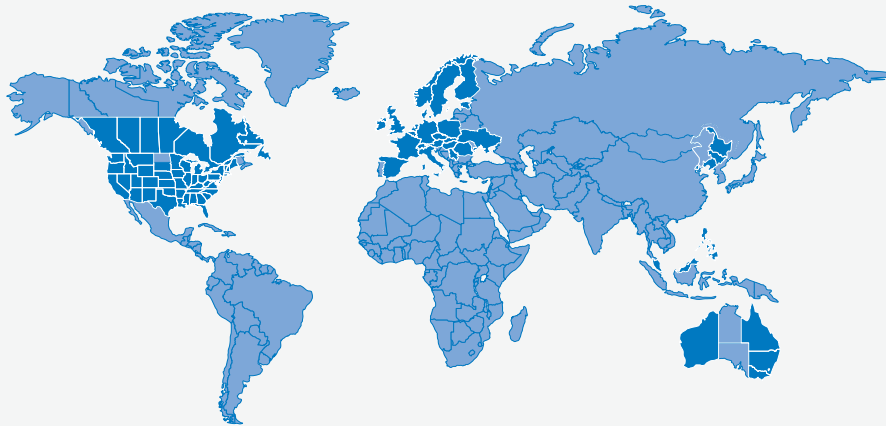
Through the hard work and endurance of our people, we have learned that, as a company, we are resilient in the face of adversity and change, strengthening our position as a sustainability leader in our communities. As we move forward into 2023, we will continue to advance our value-driven solutions to help society and the built environment overcome the largest challenges of our time.



# At a glance

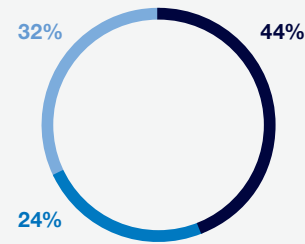
CRH is the leading provider of building materials solutions that build, connect and improve our world.

By combining our materials, products and services, including recycled end-of-life materials, into solutions which can be delivered more efficiently and sustainably, CRH is uniquely positioned to meet the changing needs of its customers, and to address and contribute to a more sustainable built environment.



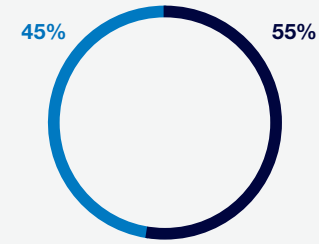
## CRH in numbers

Countries **29** Locations **c.3,160** People **c.75,800** North America **#1** Europe **#1**



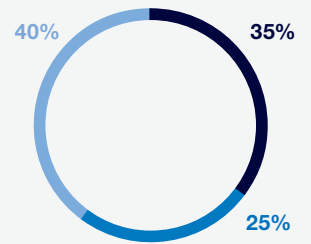
Sales by Division

- Americas Materials **44%**
- Building Products **24%**
- Europe Materials **32%**



Sales by End-Use

- New Build **55%**
- Repairs, Maintenance & Improvement (RMI) **45%**



Sales by Sector

- Residential **35%**
- Non-residential **25%**
- Infrastructure **40%**

## What we do

### BUILD

Sustainable and resilient communities through structures that provide protection, shelter, warmth and safety as well as enabling transport and commerce.

### CONNECT

People and locations through infrastructure that moves people, property information, energy and water.

### IMPROVE

A built environment that is stronger, more durable, more efficient, more economical and more effective.

#### Materials, products and services

We manufacture and supply a range of materials, products and services that are used extensively in a wide range of construction applications.

#### Integrated building solutions

We combine and connect materials, products and services to provide customers with complete end-to-end building solutions.

#### Sustainable products and solutions

The solutions we provide help to shape a more sustainable built environment.

#### Innovation

We are constantly innovating to improve existing and develop new technologies that will empower more sustainable forms of construction in the future.

#### Collaboration and partnership

We understand the importance of collaboration and the need to work in partnership with others in order to realise our ambition in areas such as sustainability.

Aggregates
Cement & Lime
Concrete
Asphalt
Paving & Construction
Architectural Products
Infrastructure Products
Construction Accessories

# Our unifying purpose

At CRH what we make is essential to life and living because our materials, products and solutions define how our world is built.

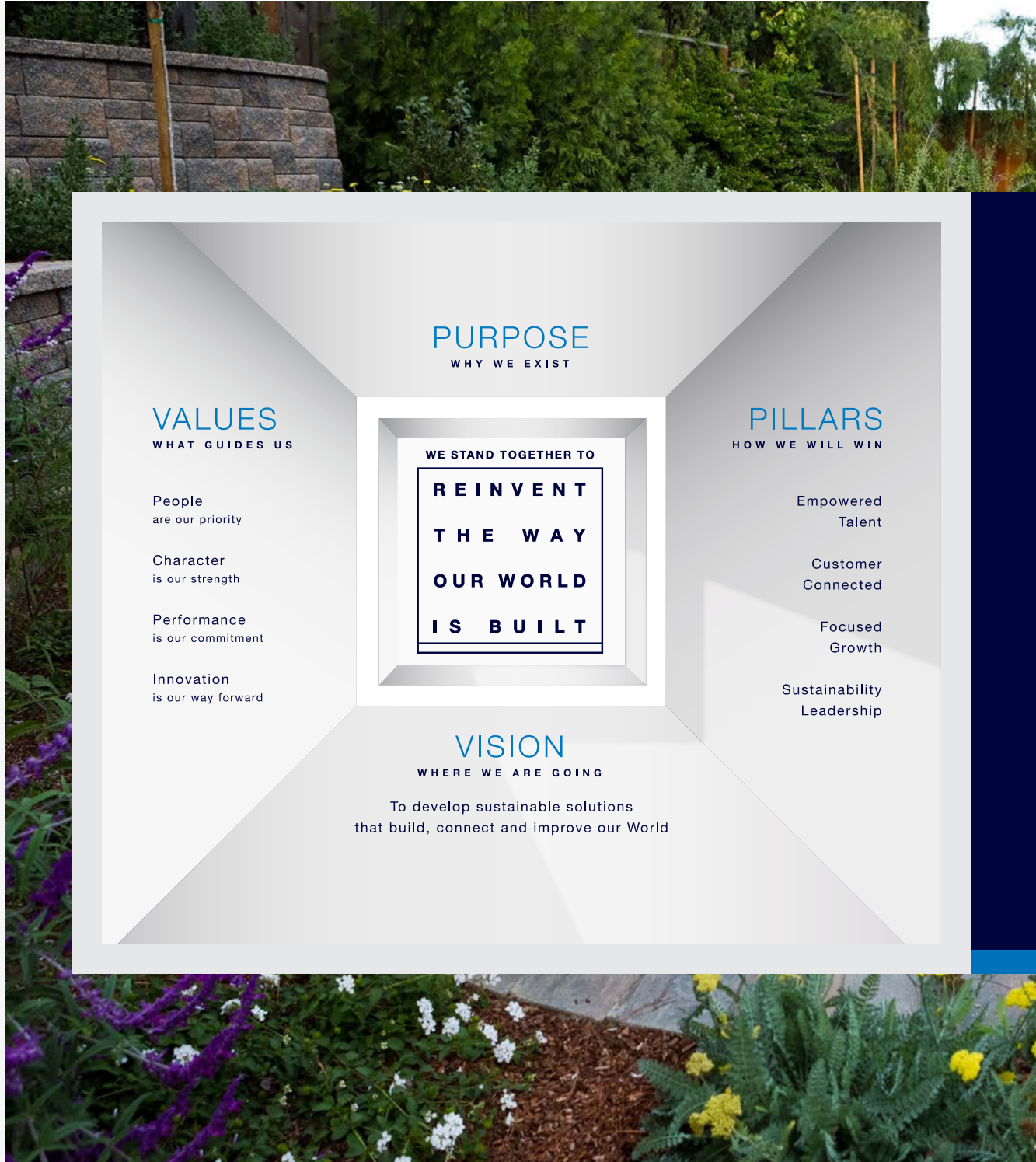
We have a relentless drive and a capability that can be applied to solving some of the major challenges of our time and we know that by standing together as a company we can make the biggest impact.

To ensure that our Vision, Values and Strategic Pillars are aligned with our Purpose, we took the opportunity to develop a powerful unifying framework - that sets out what CRH is and how we operate. Our Purpose is why we exist; our Vision is where we are going; our Pillars are the actions we will take to win; and our Values guide our behaviours every day.

## Empowering sustainability leadership

For over 50 years, CRH has continually transformed, adapted and reinvented, while always delivering value and creating sustainable solutions that contribute to a better built environment and more resilient society.

By positioning 'Sustainability Leadership' as one of the Pillars of our Purpose, it demonstrates the ongoing focus across the business to actively improve the built environment by integrating sustainability into everything we do. We continue to empower sustainability leadership throughout the Group, driven by our new sustainability framework which creates long-term value for both CRH and for our stakeholders throughout society.



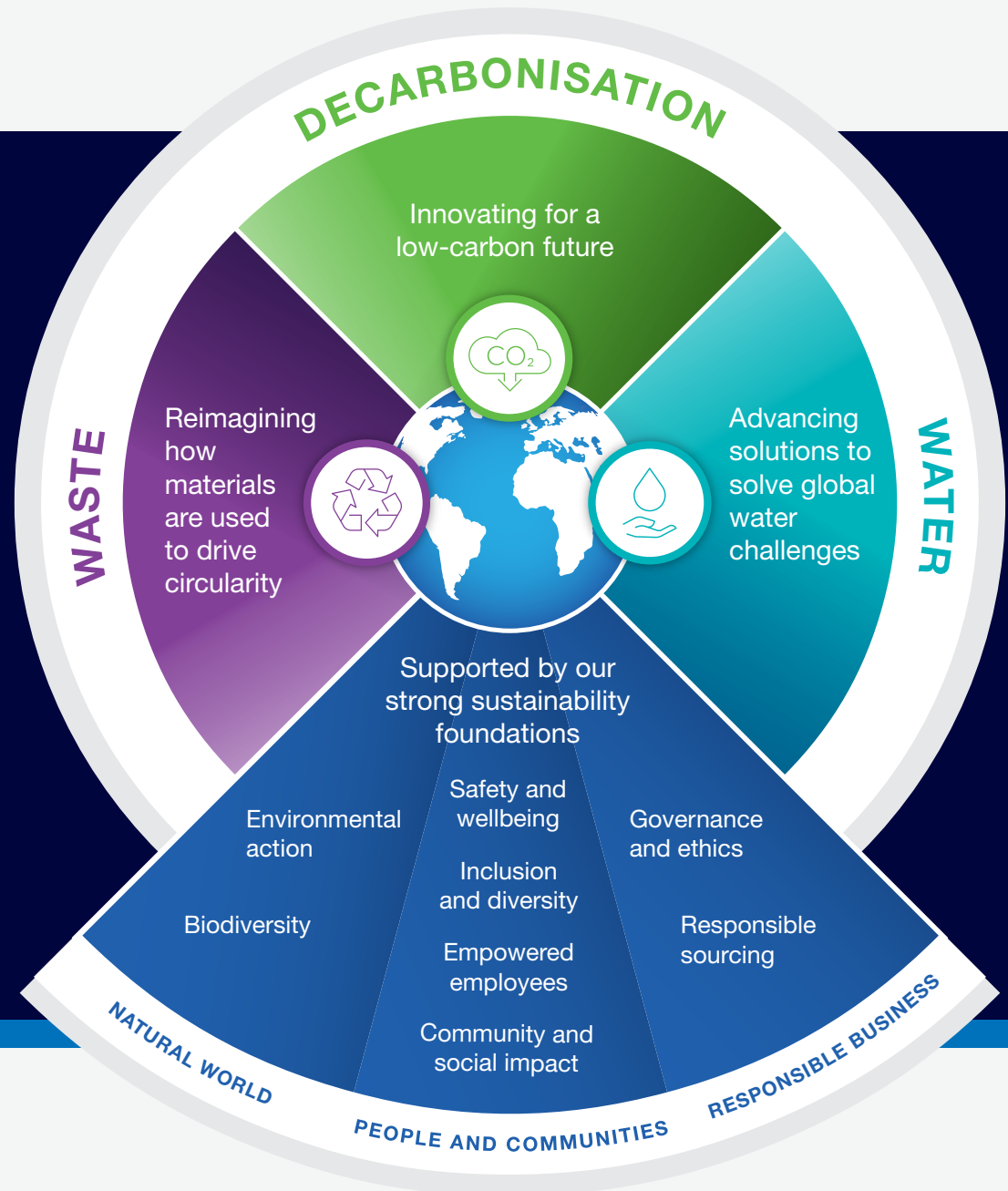


# Our framework for a sustainable future

Our new sustainability framework identifies three rapidly emerging and hard to solve global challenges for the built environment and society - decarbonisation, waste and water. CRH is well placed to provide the value driven solutions to help solve these challenges and improve the quality of the world we live in.

The world that we see emerging today is more complex than ever. With a rapidly growing population and cities already at capacity, climate change and demands on resources, there are significant challenges for the built environment and the infrastructure needed to support these expanding populations. To meet these demands, society must move quickly to plan for growth and provide the efficient and resilient buildings, infrastructure and utilities, such as clean water, affordable energy, transport and telecommunications, that are essential for modern life.

At CRH, we are taking action across our own operations and designing our products, services and solutions to help create a more sustainable built environment. By continuing to meet the needs of our customers and society, we will continue to drive growth and value. In addition, we are investing our efforts to develop strong sustainability foundations around protecting the natural world, helping our people and communities to thrive and standing out as a responsible business.





We are embracing our responsibility and evolving as a business to help solve three global challenges for society and the built environment.



## DECARBONISATION

### Innovating for a low-carbon future

To combat climate change and protect the lives of people and wildlife, the world needs to deliver absolute carbon emissions reductions and the construction sector has a central role to play.

[Read more about how we are addressing the challenge of Decarbonisation on page 16](#)



## WASTE

### Reimagining how materials are used to drive circularity

Rapid economic growth, urbanisation and a growing population are contributing to global resource consumption and waste challenges. To address these challenges, we must pursue innovative opportunities that embrace the circular economy.

[Read more about how we are addressing the challenge of Waste on page 25](#)



## WATER

### Advancing solutions to solve global water challenges

Population growth, urbanisation and climate change are accelerating the pressure on water resources and increasing the need for resilient water supplies. We are constantly evolving solutions to support access to clean water and the resilience of communities to droughts and flooding.

[Read more about how we are addressing the challenge of Water on page 31](#)

In addition to accelerating the delivery of solutions to these global challenges, we continue to drive action to improve our strong sustainability performance.



## NATURAL WORLD

As a sustainability leader in our industry, we constantly strive to create a positive impact on the world around us and support the acceleration towards a nature-positive economy.

[Read more about how we are minimising our environmental footprint on page 36](#)



## PEOPLE AND COMMUNITIES

We endeavour to create positive change for communities, people and wider society, as we continue to drive our ambitions for a safer, more inclusive, diverse and empowered workforce.

[Read more about how we are supporting our people and communities on page 43](#)



## RESPONSIBLE BUSINESS

We are committed to safeguarding human rights, collaborating for a more sustainable supply chain and embedding responsible business conduct at each level throughout our organisation.

[Read more about how we are building trust with our stakeholders on page 58](#)

By positioning sustainability at the core of modern construction, we are supporting the delivery of the UN Sustainable Development Goals.



### Priority Sustainable Development Goals

#### Influencing

We have identified these goals as those that we believe CRH can affect the most change and directly and indirectly influence the outcome through our actions and solutions.

- SDG 9** Industry, innovation and infrastructure [↗](#)
- SDG 12** Responsible consumption and production [↗](#)
- SDG 13** Climate action [↗](#)

#### Partnering

We have identified these goals as those that we believe CRH can contribute to by collaborating across our industry to influence the outcome.

- SDG 6** Clean water and sanitation [↗](#)
- SDG 11** Sustainable cities and communities [↗](#)

#### Supporting

We have identified these goals as those that we believe CRH can support through our actions and solutions.

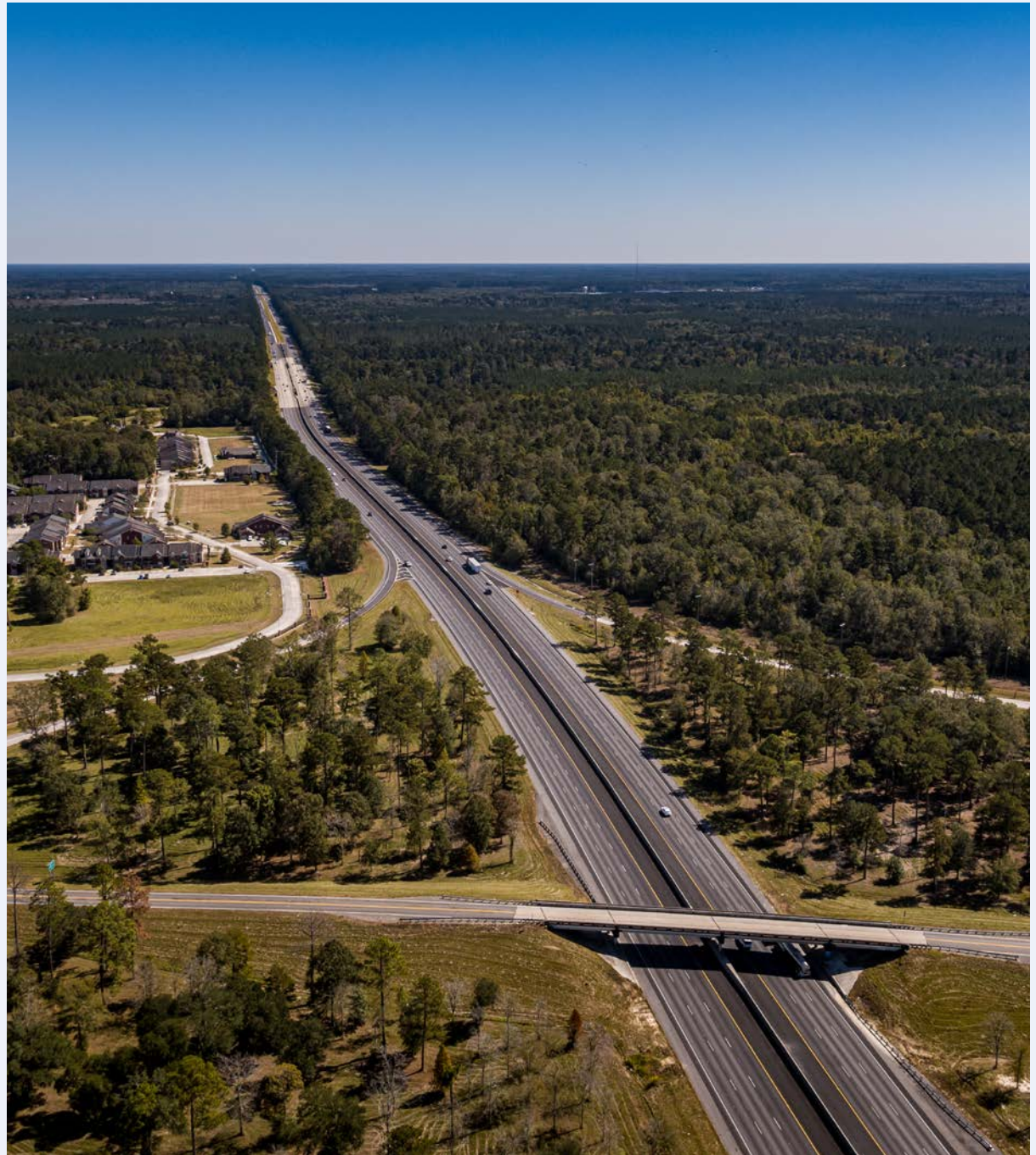
- SDG 5** Gender equality [↗](#)
- SDG 15** Life on land [↗](#)



## Trends

## Our world today

At CRH, we are embracing our responsibility to society and evolving as a business to successfully address the challenges that the world is facing today. In this section, we describe how we are acting to enable a more sustainable built environment and helping to support customers and communities to solve these global challenges and improve the quality of the world we live in.





## Growing urgency on climate action

Climate change is one of the defining challenges of our time, manifesting as rising temperatures and extreme weather events. This is placing enormous stresses on communities, livelihoods and biodiversity worldwide. Every country across the globe is in some regard feeling the effects of climate change and there is growing urgency on efforts to mitigate its effects. The scale and magnitude of these impacts can be reduced if the correct tools, including policies, technologies and collaborative efforts, are enacted as timely and efficiently as possible.

There has been a rapid increase in the development of sustainability and climate-related regulations globally. Increasing expectations for transparency are encouraging companies to disclose their sustainability performance and actions they are taking to combat climate change.

For businesses, recognising the value of healthy ecosystems and addressing the interconnections between climate change, communities and biodiversity will be key to an effective climate action approach.

**As a leader in our industry, we are working to ensure that our businesses and products are part of the solution to the climate crisis.**

We are pushing climate-smart innovation across our industry to transform the way we build, prioritising sustainability and resiliency for our communities in the face of climate change.

[Read more about how we are innovating for a low-carbon future on pages 16 to 24](#)



## Increasing need for circular solutions

The way our modern society lives is highly dependent on natural resources. Existing consumption patterns are negatively impacting the environment, biodiversity and communities across the globe.

Adopting a circular approach through greater resource efficiency, better waste management and prevention and circularity in design supports sustainable growth and together have the potential to improve resource efficiency, reduce carbon emissions and reduce impacts on nature.

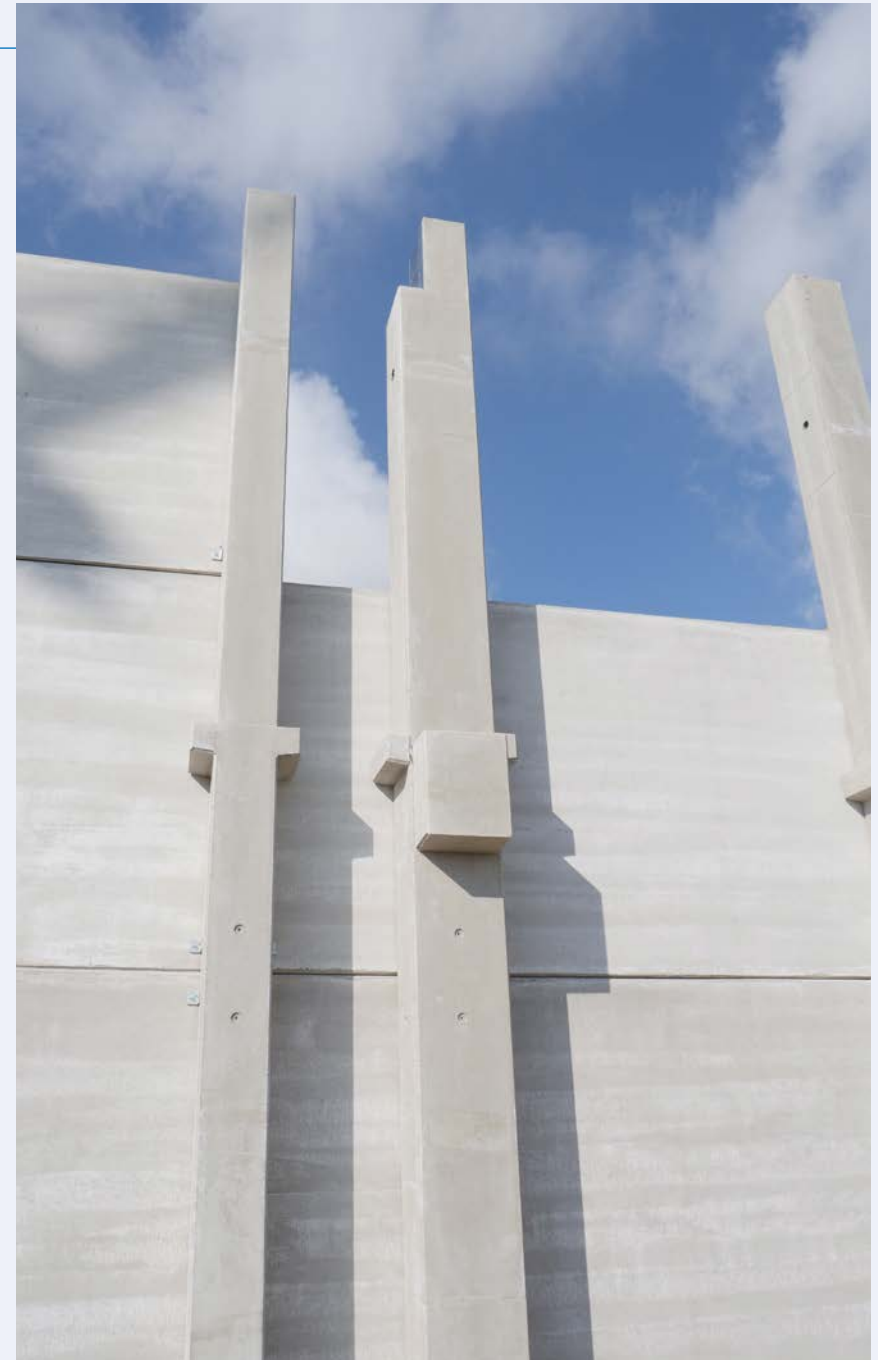
Circularity, material sourcing and renewable resources are critical components in future strategies for companies and have the potential to significantly reduce carbon emissions from materials and reduce impacts on nature.

The building materials industry is playing an important role in moving towards a more sustainable circular economy model.

**At CRH, we are changing the face of construction by developing sustainable solutions that boast quality, circularity and durability.**

As a leader in the use of wastes and by-products from other industries as raw materials and fuels for our processes and products, we see the circular economy as a growth opportunity for our business and are committed to driving circularity to create long-term, sustainable value for us and our stakeholders.

[Read more about how we are driving circular solutions on pages 25 to 30](#)







## Ensuring a just transition

In the shift to a low-carbon economy, the Paris Agreement calls for “a just transition of the workforce and the creation of decent work and quality jobs”. Companies are increasingly expected to proactively manage the social risks and opportunities of their decarbonisation strategies by developing robust Just Transition plans. This includes providing workers and communities with training and resources to help create a more sustainable built environment and using business models to strengthen climate adaptation and resilience.

**At CRH, we have always recognised that decarbonisation of our business must be fair and equitable, and we take a proactive and collaborative approach to managing the social impacts of our decarbonisation strategy on our people and communities.**

Although Just Transition guidelines and frameworks continue to evolve, many of the existing principles, such as those in the Paris Agreement and International Labour Organisation’s current guidelines, are already embedded in our business and remain under review.

We focus on reskilling and redeployment opportunities for our employees; community engagement to understand the priorities of our stakeholders; investing in social impact projects that enhance community wellbeing; deploying our building materials solutions to protect economic activity and the environment; maintaining an open dialogue with key stakeholders; and integrating internationally recognised industry best practices in our approach to a Just Transition.

[Read more about how we are supporting people and communities on pages 43 to 57](#)



## Providing essential water infrastructure

The built environment is under increased pressure from extreme weather patterns associated with climate change. Many communities are facing water-stresses such as droughts, floods and freezing temperatures which are impacting local water supplies. Water-linked disasters can also be attributed to poor and outdated water management infrastructure that no longer supports the increasing demand of growing communities. Access to safe and clean water is a basic human right and a necessity for every member of society.

There is an urgent need to upgrade existing water infrastructure to increase stormwater protection and ensure access to safe drinking water for millions of homes and businesses. To do this, significant investment in construction, maintenance and upgrading is required.

**We have a significant role to play in protecting and rebuilding communities through our products and solutions that enable effective management of water.**

This includes products used in flood defences, stormwater management systems and permeable paving to manage urban stormwater run-off more effectively.

[Read more about how we are providing solutions to global water challenges on pages 31 to 34](#)



## Prioritising supply chain management

Due to the ongoing global economic recovery from the pandemic, the geopolitical conflict in Ukraine and the ongoing energy crisis, industries are experiencing supply chain disruptions. As a result, supply chain management is of growing importance, with consumers and investors increasingly concerned about issues such as human rights and environmental impacts in supply networks.

Businesses are facing challenges to build more sustainable and resilient supply chains that will ensure their operations can continue and grow. Incorporating sustainability at each level of a supply chain is essential to driving positive change throughout industries.

As the demand for products rises, it is essential that transparency surrounding supply chain engagement is prioritised by businesses.

**We remain in close contact with our suppliers across our business to ensure that our values and practices are aligned.**









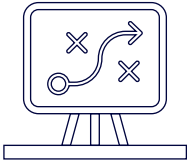
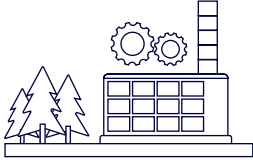






By innovating and collaborating, we can ensure that together we deliver buildings and infrastructure with best practice in mind, while also empowering employees at every level across our business.

[Read more about how we are delivering value across our supply chains on pages 62 to 63](#)

# Our materiality assessment

Regular materiality assessments are part of the range of processes, including annual sustainability and risk management reviews, that we use to identify and define the material topics that should be elevated in our business strategy and reporting. These processes help us monitor risks and opportunities and articulate what matters most to society.

In 2022, we carried out a dynamic high-level materiality assessment, further examining and updating the findings of our formal assessment carried out in 2019. This is the second high-level assessment completed since 2019 which evaluated materiality through a combination of desktop research, internal and external stakeholder engagement and data analysis. It highlighted new and emerging sustainability topics for CRH and our stakeholders. In reviewing the outcomes of the materiality assessment, we identified opportunities to update our material issues to reflect changing societal concerns.

Identification and engagement 	Prioritisation of material issues 	Validation and outcomes 
<p>An initial list of over 900 sub-topics was developed based on a desktop review of sources including:</p> <ul style="list-style-type: none"> <li> Legislation</li> <li> Industry trends</li> <li> Peer review</li> <li> Megatrends</li> <li> CRH Risk Register</li> </ul>	<p>The results of the desktop research and stakeholder engagement were collated, and an issues register was developed.</p> 	<p>The CRH Risk Register was integrated into the materiality assessment to ensure our key sustainability issues were aligned with our business risks and strategy.</p> 
<p>This list was consolidated into key topic areas and tested with a range of internal and external stakeholders across relevant geographies and business activities, to understand their perceived importance.</p>	<p>Criteria were developed to measure the importance of each topic, including:</p> <ul style="list-style-type: none"> <li> Importance to stakeholders</li> <li> Importance to CRH's ability to deliver its strategy</li> <li> Potential reputational impacts</li> </ul>	<p>Key material topics were identified, validated and reviewed by senior management and are reflected in our sustainability ambitions and targets. The 2019 report outputs have also formed the foundation for two subsequent dynamic high-level material assessments, carried out by independent specialists to continuously check against the changing sustainability landscape.</p>
<p>In 2019, we engaged with our stakeholders through:</p> <ul style="list-style-type: none"> <li> Online surveys</li> <li> Telephone interviews</li> <li> Focus group sessions</li> </ul>	<p>Based on the findings of the desktop research and analysis of stakeholder engagement exercises, sustainability issues were scored against criteria and plotted on a matrix.</p>	<p>The outcomes of this process will be used continuously to improve stakeholder engagement and inform integration with global initiatives, such as the UN SDGs.</p>

## Our assessment approach

As part of our 2019 process, we identified relevant stakeholders including executive leadership, senior management, employees, customers, suppliers, sustainability specialists, academics, government, non-governmental organisations (NGOs), environment, social and governance (ESG) agencies and trade associations.

These stakeholders were asked to rank the relative importance of a range of sustainability topics in relation to the impact on them, their community and their business. The insights we gained were extremely valuable in helping us to manage future risks and opportunities.

At CRH we review our material impacts on an annual basis. Building on the formal materiality assessment process completed in 2019 by third-party sustainability experts, in 2022, we completed an independent dynamic assessment using specialists to measure the changes across the specific aspects of sustainability. This review consisted of a high-level desktop review of peer reports, media coverage, rating agencies and legislative changes, as well as internal workshops with relevant functions in CRH.

## Identifying what matters

Through the 2022 assessment, it was determined that our key material topics remain the most significant sustainability topics for CRH. However, to bring more clarity about how they are connected, some matters have been repositioned and regrouped to form 14 focus material topics (shown in detail in our materiality matrix on page 13). For example, the topics of 'Climate action', 'Health, safety and wellbeing' and 'Innovative and sustainable solutions' have increased slightly from last year in importance to stakeholders. In addition, the topic of 'Waste and air quality' has been divided into 'Waste' and 'Air quality' to reflect best practice and the growing focus on providing more circular solutions. We have also renamed 'People practices' as 'Empowered talent' to ensure alignment with the Pillars of our Purpose.

# Our materiality assessment

Continued

## Regional and activity boundaries

Throughout the materiality assessment process, as outlined on the previous page, the diversification of CRH in terms of business activities and geographies was addressed, so that a global view could be reflected.

The relevance of certain sustainability topics were dependent on the activity and geography specific companies operated in. For example, the topic of alternative fuels, which is incorporated within the topic of 'Climate action', was found to be most relevant for our cement businesses. The relevance of some sustainability topics did not vary significantly by either geography or business activity, including the topics of 'Health, safety and wellbeing', 'Inclusion and diversity' and 'Innovative sustainable solutions'.

## Next steps

Looking to the future, we will continue to monitor our material topics, including potential impacts on the performance, development and position of the company, as well as the potential environmental and social impacts of our activities on our stakeholders. This includes conducting a double materiality assessment as required by the EU Corporate Sustainability Reporting Directive (CSRD), and in line with revised GRI standards in the coming year. We will provide updates annually and use the outcomes to continuously improve our stakeholder engagement processes and inform further integration with global initiatives, as we seek to support a Just Transition for our stakeholders and deliver long-term value creation from sustainability.

### 2022 materiality matrix



Learn more about how we are contributing to the UN Sustainable Development Goals on page 8.



# Driving sustainable value

CRH has continually transformed, adapted and reinvented, while always delivering sustainable value and creating end-to-end solutions that contribute to an improved built environment and more resilient society. We continually collaborate with various stakeholders to drive more sustainable outcomes and grow our business.

## Achieving sustainability leadership

Meeting our business needs in a manner that respects sustainability principles aligns with our character. We are ranked among sector leaders by leading Environmental, Social and Governance (ESG) rating agencies. We are a constituent member of indices including the FTSE4Good Index, the STOXX® Global ESG Leaders Index and the S&P Dow Jones Sustainability Index, as well as a long-term participant in CDP.

📄 See page 87 for more information on our external ESG recognitions and benchmarks.

## Navigating the global transformation

We focus on acquiring strong businesses that complement our existing portfolio and ensure the long-term sustainable growth of our business. We undertake extensive due diligence for all acquisitions, recognising strong performance across ESG areas as a key indicator of a well-run business. In developing markets, we concentrate on ensuring strong governance is in place, including focused efforts to safeguarding human rights and other relevant social requirements.

📄 Read more about our approach to responsible business practices on pages 58 to 63, as well as pages 46 to 49 in our 2022 Annual Report, available on [crh.com](https://www.crh.com).

## Long-term value creation

We are accelerating our integrated sustainable solutions journey to ensure we can continue to solve our customers' complex building challenges. Recently, we welcomed Barrette Outdoor Living to our Building Products Division, augmenting our ability to provide a complete suite of outdoor living solutions to our customers in North America. In addition, Barrette have sustainability programmes in place, such as the GreenWays initiative, to increase the amount of recycled materials used in its products, supporting our goal of reducing waste and contributing to the circular economy.

To further advance our sustainability journey, our CRH Ventures function seeks investment opportunities that align with our sustainability framework and value driven business model that will help accelerate change in how the built environment is constructed.

📄 Read more about how we create long-term value in our 2022 Annual Report, available on [crh.com](https://www.crh.com).

## Supporting inclusive growth

We strive to create sustainable financial and non-financial value for our stakeholders. We understand the concept of stakeholder capitalism and aim to ensure that our business serves the interests of all of our stakeholders, from investors to local communities. By placing the safety and wellbeing of people and the planet at the centre of our business, we consider the needs of society at large and deliver returns for all.

We recognise the importance of integrating social inclusion into all our actions. As society transitions to a net-zero economy, we aim to ensure that our actions support a Just Transition in line with the Paris Agreement. This includes providing opportunities for those who may be negatively impacted due to the greening of economies.

## Managing risk and building resilience

At CRH, we recognise that Enterprise Risk Management (ERM) can provide competitive advantage and drive value creation in the face of uncertain political, economic, social and environmental developments. Our integrated and effective risk management facilitates more agile decision-making, driving increased performance.

📄 Read more about our ERM processes on pages 50 to 54 in our 2022 Annual Report, available on [crh.com](https://www.crh.com).



## Sustainable financial value creation

### What are the challenges and how are we managing them?

We are continuously reshaping our business to deliver significantly higher margins and industry leading cash generation while contributing to a better built environment. By incorporating sustainability into all aspects of our business model we can maintain a long-term competitive advantage and bring value creating solutions to the market. Through innovation and development, we generate value creation opportunities for both our shareholders and our wider stakeholders along our supply chain. In doing so, CRH is well positioned for future growth and improved performance.



### Annual Report

Click here to read more in our 2022 Annual Report  
[crh.com](https://www.crh.com)





# Accelerating sustainable solutions

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**In this image:** Our businesses are recognised as leaders in implementing solutions for complex infrastructural challenges. For example, Dufferin Construction, part of our Americas Materials Division, is collaborating with the Ministry of Transportation (MTO) Ontario to deliver a multi-faceted upgrade to Highway 417 in midtown Ottawa, Canada. The project requires the implementation of innovative bridge replacement technology, and Dufferin Construction was chosen for its expertise in Rapid Bridge Replacements (RBR) solutions. Impressively, the project's bridge replacements are completed over a single weekend per location, allowing the highway to fully reopen prior to Monday morning rush-hour traffic. In total 11 bridges and overpasses will be replaced and over 5km of noise cancelling walls, concrete barriers and storm sewers installed.



"Across our business we are designing and engineering our offering of sustainable building products and materials. Standing together with industry stakeholders and partners, we are developing solutions focused on decarbonisation, waste and water to improve the built environment. At CRH, we have stepped up our ambitions to accelerate how we innovate today, for tomorrow and generations to come."



**Randy Lake,**  
Chief Operating Officer








 **DECARBONISATION** →

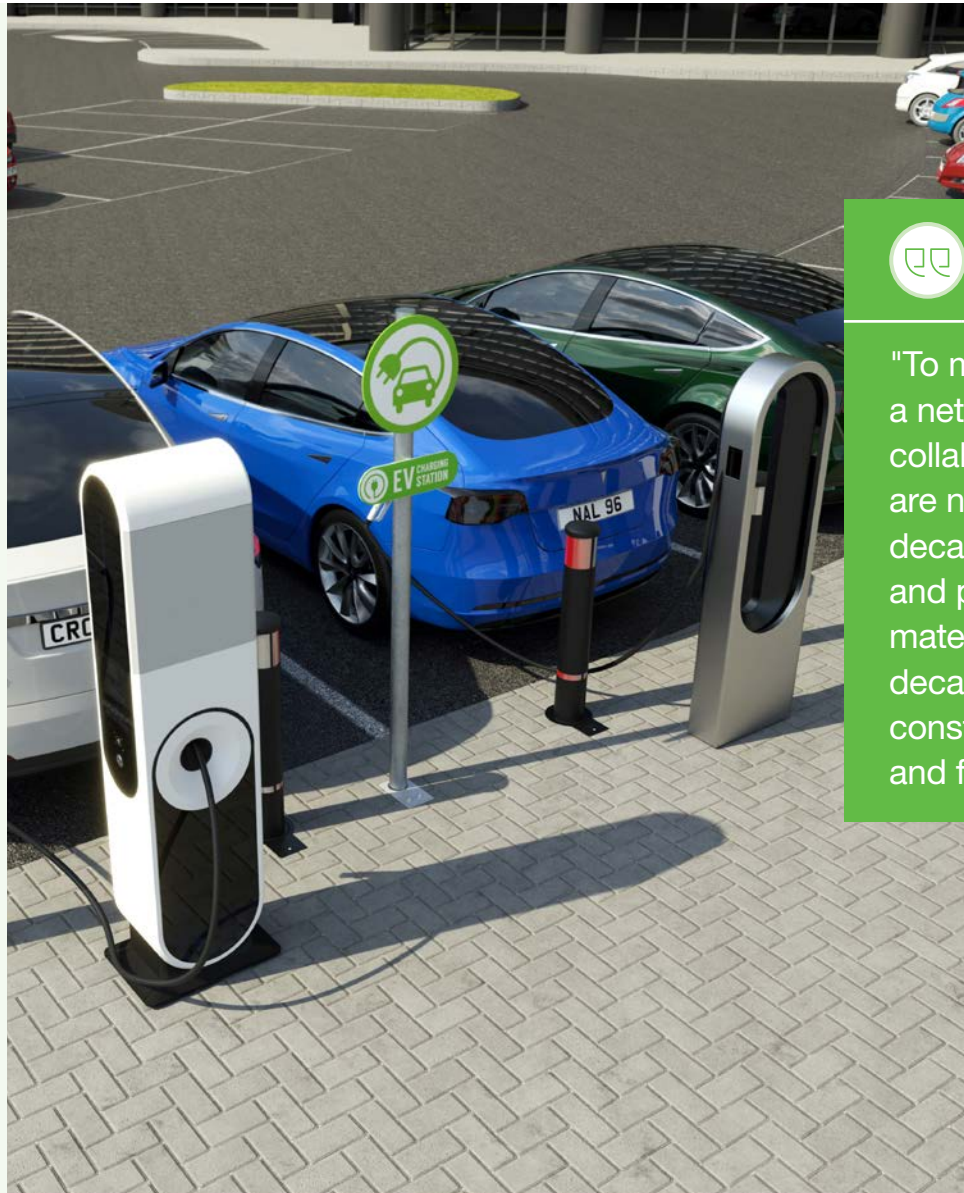
**Innovating for a low-carbon future**

Our ambition is to lead our industry towards a net-zero future by reinventing the way our world is built. The built environment, including the homes, buildings and infrastructure on which we rely, accounts for approximately 40% of global carbon emissions. The major contributor is the energy that is used to heat, cool and operate buildings year-round, followed by emissions from the manufacturing of the materials used in construction. There is a significant opportunity to design, construct and renovate the urban landscape to provide the efficient, resilient, net-zero buildings, infrastructure and utilities our communities need to minimise the impacts of and adapt to the risks posed by climate change.

As a leader in our industry, we are embracing our responsibility to take action to enable a net-zero built environment and create a positive impact and sustainable value for society.

**In this section**

- Leading the way in sustainable construction solutions  17
- Targeting emissions reduction  20
- Optimising energy efficiency  21
- Delivering low-carbon solutions  22
- Collaborating for climate action  23



At CRH, we are actively working to decarbonise our business, industry, and the wider urban landscape. For example, NAL, part of our Building Products Division, has developed modular foundations to support electric vehicle (EV) infrastructure installations across the UK, helping to address customer pain points and decarbonise the national fleet. In line with new incentives for EVs, NAL innovated and collaborated to develop a universal future-proof solution for all EV charging units. In doing so, NAL supported their clients' ability to roll out and scale up the installation of EV charging infrastructure, making electric vehicles a more convenient option for the public. We will continue to identify decarbonisation solutions to help meet global sustainability goals as we aim for a net-zero future.



**Elena Guede,**  
SVP Sustainability Strategy



"To meet society's ambitions for a net-zero carbon future, global collaborative effort and radical change are needed. We are committed to decarbonising our own business and providing the sustainable materials and solutions needed to decarbonise the built environment, construct energy efficient buildings and for clean energy infrastructure."



Read more in this section about how we are supporting the following UN SDGs:

- SDG 9** Industry, innovation and infrastructure
- SDG 13** Climate action



## Leading the way in sustainable construction solutions

### Decarbonising the built environment

Achieving decarbonisation in the built environment requires transformation right across the construction value chain. This includes actions to reduce fossil fuel use within building material and construction supply chains and from the in-use and end-of-life phase of buildings and infrastructure.

We recognise the opportunity that our products and services have to help solve the challenges of decarbonisation. Our wide product portfolio – including aggregates, cement, lime, concrete, asphalt and other building products – has a significant role to play in delivering a durable, net-zero built environment. We are building on the actions we have already taken and are driving further decarbonisation within our supply chain, manufacturing operations and transport, in line with our robust climate targets and our ambition to be a net-zero business by 2050. Read more about how we are accelerating the decarbonisation of our operations on page 20.

Beyond providing low-carbon building products and solutions, we are taking a whole life approach to develop climate-smart solutions that help to address our customer's complex construction challenges and provide the solutions they need to deliver net-zero, high performance buildings and infrastructure. Our value-added solutions prioritise sustainability and durability to support the longevity of built assets, significantly reducing whole life carbon, by reducing the need for repair, maintenance and rebuild. We also provide solutions to reduce carbon from the construction process and at end-of-life.

We continue to collaborate across our industry and to expand our product portfolio to offer new innovative products, services and solutions for a net-zero future.

### Deployment of energy infrastructure

Importantly, our solutions also play an important role in enabling the design and construction of more energy efficient buildings. For example, increasing durability can play a very important role in reducing lifecycle carbon and concrete's thermal mass properties can be harnessed in building design to greatly improve the energy efficiency and thermal performance of the building, significantly reducing the energy needed for heating and cooling.

In addition, our solutions have an important role to play in the provision of clean energy infrastructure. We are supporting the need for clean energy by providing essential products required in the construction of renewable energy infrastructure. We are proud to be laying the foundations for the clean energy transition by providing essential infrastructure that is needed to support solar and wind energy installations, electric vehicle charging stations, as well as other low-carbon forms of energy generation, and in the future hydrogen distribution.


For example, Staker Parson Materials & Construction, part of our Americas Materials Division, collaborated with the city of Spanish Fork, Rocky Mountain Power and the Governor of Utah in the development of a wind farm at its Gomex Pit location in Utah. This wind farm, one of the first in the state of Utah, supplies power to the Spanish Fork power grid, reducing pressures on the national power infrastructure.

### Designing low-carbon, whole-life products and solutions


As we further progress decarbonisation, it is also important to consider how our products are used in the built environment. We apply innovative value-added, technology-led products and services, together with carbon management processes to reduce the embodied and operational carbon footprint of individual structural components and in support of building and infrastructure design, such as roads. In addition, we offer a wide range of low-carbon products and solutions and can help customers select the best option for their specific application and project considering the whole life performance.

To support our customers to reduce embodied and operational carbon, our Innovation Centre for Sustainable Construction (ICSC) have developed a concrete mix design optimisation tool called iManCrete which calculates the optimum ingredients needed to make up a concrete mix design based on the raw materials available, by looking into their mixture cost and CO<sub>2</sub> content. An advanced version of the iManCrete tool is being developed which uses artificial intelligence to take account of the operating plant and surrounding environment when calculating the optimal concrete mix and help predict performance and strength.

The ICSC are also developing a decision support tool called dCarbonizer which gives valuable insights to designers regarding building by assessing whole-life carbon, cost and futureproofing of construction projects in their early design stages. The tool integrates Building Information Modelling (BIM) models and Environmental Product Declarations (EPDs) to present varied scenarios to the user. Advancing digital technologies like these offer smart solutions to the built environment, by supporting the construction of low-carbon buildings. Read more about what we are doing to reduce the embodied carbon of our products on page 18.



**Case studies**  
Click here to read more information about how we are leading the way in sustainable construction solutions





## Climate action

### What are the challenges and how are we managing them?

To meet the challenges of climate change, the world needs to invest in innovation to deliver absolute carbon emissions reductions. As a global leader in the supply of sustainable materials and solutions, we can contribute to innovative, energy efficient and resilient net-zero buildings and infrastructure. We provide low-carbon products that can be used to support the development of renewable energy infrastructure and are also resilient in the face of extreme weather events caused by the changing climate. By decoupling emissions from growth and setting both specific and absolute carbon emissions reduction targets, we can support the necessary transition to a low-carbon built environment.



## Stakeholders tell us

"Delivering the carbon emission reductions the world needs will require collaboration across industries. We are proud to partner with CRH Ventures and CRH to deploy one of the world's largest integrated carbon capture and utilisation facilities at CRH's Ash Grove cement plant. This partnership marks a significant milestone for our company and technology, demonstrating Carbon Upcycling's ability to transform locally available solid wastes into cost-effective, CO<sub>2</sub>-enhanced cement formulations. We look forward to this initial deployment and the foundation it will set for future growth and collaboration across CRH's global portfolio."

**Apoorv Sinha,**  
CEO of Carbon Upcycling

## Leading the way in sustainable construction solutions

Continued

### Accelerating innovative solutions

Decarbonisation is an opportunity for innovation, growth and long-term value creation. To help solve this global challenge, we are driving research to bring innovative technologies into mainstream use.

Together with academia and partners in the cement and concrete industries, our operating companies and our ICSC are working to increase our ability to adapt to an ever-changing world and decarbonise the built environment in the most efficient and timely manner possible. Projects include carbon capture and utilisation, nanomaterials, BIM, artificial intelligence (AI), automation, modular construction, offsite production and energy conservation. For example, Danucem, part of our Europe Materials Division, has been using AI prediction models to control product performance and optimise concrete mix design.

### Collaborating for progress

To meet our 2050 net-zero ambition, we are focusing on advancing low-carbon technologies, based on well-established operational excellence programmes and activities, as well as accelerating the required breakthrough technologies and ensuring the right policies are in place to facilitate progress. Collaboration is essential if our industry is to achieve this.

Through the ICSC, we have a global network of laboratories and experts collaborating to advance research on sustainable building materials and processes. This research is helping to develop state of the art innovations, including systems designed to decarbonise the urban landscape and create building products with a reduced carbon footprint.

One example of this is the ICSC's participation in an Open Innovation Platform to support start-ups that can offer sustainable solutions to our industry. As part of this platform, Ash Grove, part of our Americas Materials Division, is collaborating with industry peers to support an innovative carbon capture solution pilot project that is using the latest micro algae technology to capture CO<sub>2</sub> emissions from cement plants while producing biomass and releasing oxygen.

In addition, we have over 100 ongoing research and innovation projects globally, collaborating across the construction industry and wider scientific community to drive progress towards net-zero processes. One example of such collaboration is our involvement in the Global Cement and Concrete Association (GCCA) innovation programme, 'Innovandi', which runs key programmes to develop innovations to help the industry decarbonise and produce carbon neutral concrete by 2050.

### Investing in innovative technologies

Our ICSC is symbolic of our strategy to develop novel, ground-breaking decarbonisation technologies. In addition, we recently announced the launch of CRH Ventures, our new venture capital unit that will support the development of new technologies and solutions to meet the increasingly complex needs of our customers. Through CRH Ventures we are investing in, and partnering with, construction technology and climate technology companies to pilot and scale new technologies and innovations that will enable safer, smarter, and more sustainable construction.

To further drive innovation, we have established a venturing and innovation fund of \$250 million to help our operating companies and functions develop new ideas, technologies, and value-added solutions that will help us to solve challenges, such as decarbonisation. This demonstrates our continued commitment to investing in new technologies that will shape the built environment of tomorrow. Since its launch in 2022, the venturing and innovation fund has helped finance 20 innovative projects across 14 operating companies, as well as over 20 partnerships with major universities, start-ups and engineering companies.

We are also researching new technologies that will replace the use of clinker, the primary raw material used in our cement production. For example, one of our plants in the US is trialling calcined clay technology, which involves substituting a portion of clinker with activated clay during the manufacture of cement. This enables the plant to reduce the carbon footprint of its cement. You can find more information on how we are contributing to the circular economy on pages 25 to 30.

### Carbon capture and utilisation

To further advance innovative decarbonisation technologies, we are driving the development of carbon capture technologies, which allow the capture of CO<sub>2</sub> before it can be released into the atmosphere. The captured CO<sub>2</sub> can be used in processes to make useful new products or transported, and permanently stored underground. We are involved in a wide range of collaborative initiatives and research projects to progress carbon capture, utilisation and storage (CCUS) solutions.

Concrete reabsorbs a significant amount of CO<sub>2</sub> over its lifetime in a process known as carbonation, a carbon removal reaction. Carbonation is a well understood, natural process that can be enhanced and accelerated to avoid industrial CO<sub>2</sub> emissions or remove CO<sub>2</sub> from the atmosphere. Through our operating companies and the ICSC, we are researching a range of technologies that harness this property to reduce CO<sub>2</sub> and produce useful, low-carbon products.

Amongst the many projects we are progressing, we are involved in research, development and trials of technologies that inject CO<sub>2</sub> into the concrete mix during the production of concrete products, or cure specialised concrete mixes in a CO<sub>2</sub> atmosphere, which permanently and safely stores CO<sub>2</sub>. In addition, we have partnered with a low-carbon cement technology manufacturer to pilot new technology that would allow a 30-40% reduction in CO<sub>2</sub> emissions during the manufacturing of our cement products.



#### Key achievement

**100+**

ongoing research and innovation projects globally through our ICSC

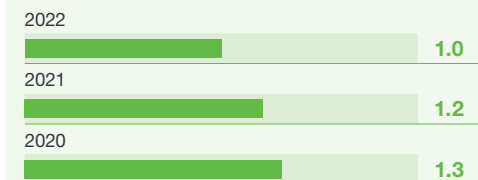


#### Annual Report

Click here to read more about our decarbonisation roadmap to 2030 in our 2022 Annual Report [crh.com](https://www.crh.com)



#### CO<sub>2</sub>e intensity - Greenhouse gas emissions Scope 1 and Scope 2 CO<sub>2</sub>e emissions (kg/\$ Revenue)





## Leading the way in sustainable construction solutions

We recognise that to combat climate change and protect the lives of people and wildlife, the world needs to deliver absolute emission reductions. At CRH we are playing our part by providing products that will shape the net-zero cities of the future. Examples of how we are unlocking the potential of decarbonisation by advancing innovative solutions are shown below:



### Case Study: Reducing CO<sub>2</sub> emissions in the production of cement

Through collaboration and innovation, we can help to advance the decarbonisation of the construction sector. JURA Materials, part of our Europe Materials Division in Switzerland, is piloting a new project called 'Swisscarb' at their Wildeggen location in partnership with neustark and ETH Zurich. The Swisscarb project aims to incorporate CCUS and biofuels into the cement manufacturing process to reduce carbon emissions. The project may also lead to an increase in the recyclability of secondary raw materials through the neustark process, which transforms concrete rubble into very pure sand and limestone.



### Case Study: Increasing the use of alternative materials to drive CO<sub>2</sub> reductions

The construction sector has a significant role to play in decarbonising the built environment by providing low-carbon products. For example, EHL, part of our Building Products Division, and Fels, part of our Europe Materials Division, have partnered to increase the use of alternative materials in cement production. By incorporating pulverized limestone in their processes, EHL reduced their cement quantities by up to 22% which equates to a 22% reduction in CO<sub>2</sub>. Trials are underway to deliver further reductions through additional alternative materials and the addition of chemical additives, which contribute to better workability and compaction of concrete. EHL plans to scale up the new materials and processes in their plants across Germany.



### Case Study: Delivering solutions to support a net-zero future

We are the builders of the low carbon, low energy world of the future. Roadstone, part of our Europe Materials Division, engaged with contractors at both preconstruction and construction phases using innovative techniques to achieve high quality concrete finishes in the construction of Bottleworks, a cutting-edge Enterprise and Innovation Centre located in Dublin, Ireland. The project, which is powered by renewable energy, achieved the NZEB (Nearly Zero Energy Building) performance specification for energy and carbon dioxide emissions and an A3 Building Energy Rating. We will continue to deliver the solutions needed to support innovative projects in the journey to net-zero.



### Case Study: Developing innovative low CO<sub>2</sub> concrete products

We are driving progress and advancing essential technologies through our ICSC. For example, the ICSC team has developed a low-carbon concrete solution that has a 65% lower carbon footprint compared to traditional concrete solutions. Following laboratory trials, operating companies from our Europe Materials Division and Building Products Division in Europe performed successful pilot-scale productions of the product, which was brought to the Finnish market in October 2022 and is now being rolled out across more of Europe and Canada.



## Targeting emissions reduction



2030 target

**30%**

reduction in absolute group-wide carbon emissions by 2030 (on a 2021 base year)

### Goals and targets

In 2021, we accelerated our target to decrease the carbon intensity of our cement production, bringing forward our cement specific net<sup>1</sup> CO<sub>2</sub> emissions per tonne of cementitious product target of 520kg from 2030 to 2025. Recognising the ongoing need for absolute carbon emissions reductions across our activities, in 2022 we announced an industry-leading ambition to reduce our absolute carbon emissions by 25% by 2030 (from a 2020 base year).

In early 2023, the SBTi validated our revised targets in line with the updated 1.5°C science based framework:

- CRH commits to reduce gross Scope 1 and Scope 2 Greenhouse Gas (GHG) emissions 33.5% per tonne of cementitious product by 2030 from a 2021 base year<sup>2</sup>.
- CRH also commits to reduce absolute gross Scope 1 and Scope 2 GHG emissions from other activities 42.0% by 2030 from a 2021 base year<sup>2</sup>.
- CRH further commits to reduce gross Scope 3 GHG emissions 23.5% from purchased clinker and cement per tonne purchased over the same timeframe.

These targets now equate to a 30% reduction in absolute carbon emissions by 2030 (from a 2021 base year). This target applies to our group-wide gross emissions and covers our total footprint across Scope 1, 2 and 3. It is also inclusive of organic business growth.

## Our carbon reduction roadmap

We have developed a decarbonisation roadmap which includes a staging post to 2030, an important milestone of our strategy towards achieving our ambition to be net-zero by 2050. We have also joined the Business Ambition for 1.5°C initiative, which aims to achieve net-zero global emissions by no later than 2050 in order to limit global warming to 1.5°C.

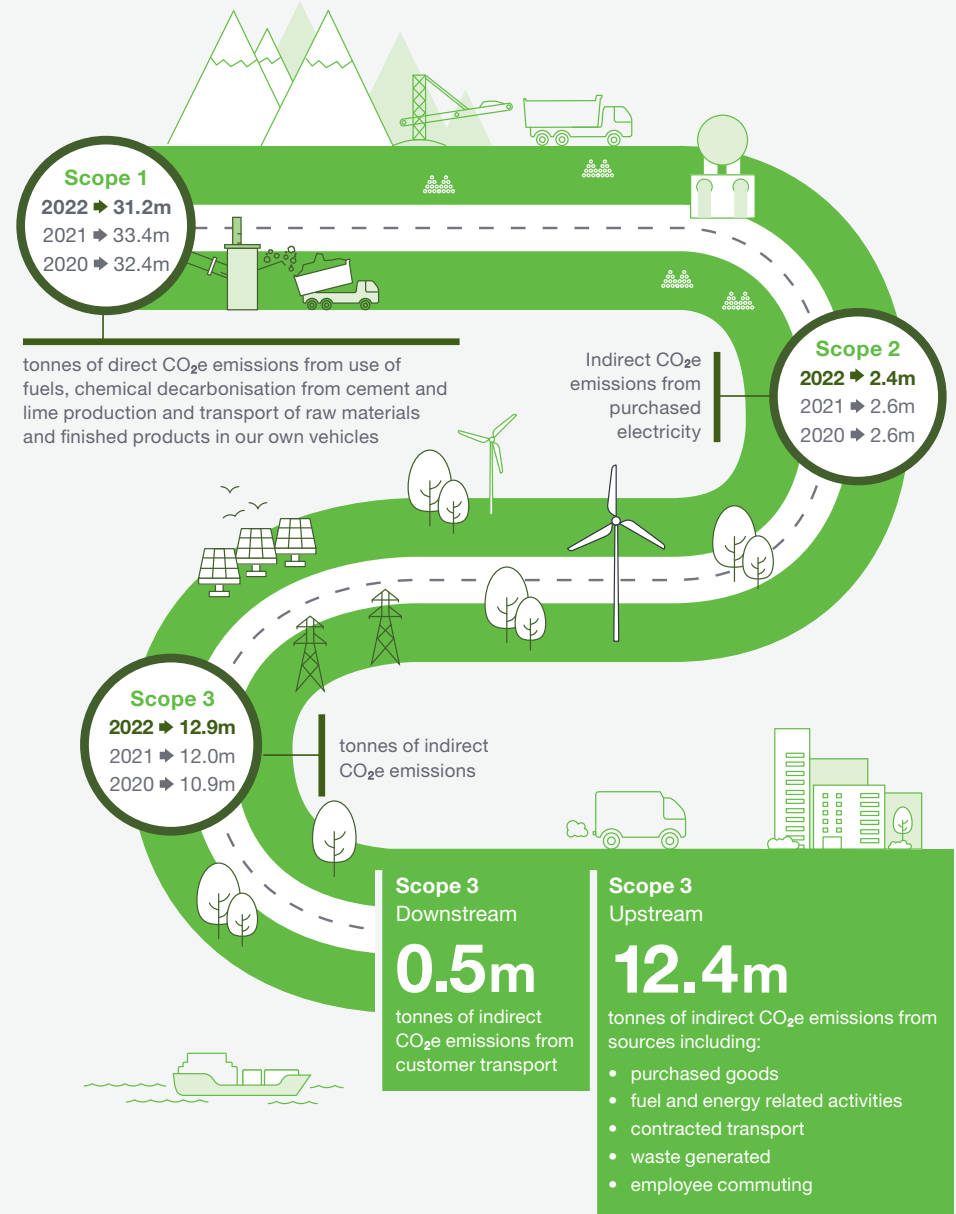
A significant portion of the actions required to deliver on the 2030 roadmap are based on known technologies, well-established operational excellence programmes and activities in which CRH has a proven track record of delivering.

In 2022, our Scope 1 and 2 absolute carbon emissions decreased by 7%, from 36.0 million tonnes in 2021 to 33.6 million tonnes in 2022, as we executed against the levers in our decarbonisation roadmap, and lower clinker production.

We also saw an improvement in our cement specific net CO<sub>2</sub> emissions per tonne of cementitious product which reduced to 566kg (from 586kg in 2021), a 27% reduction on 1990 levels.

Our decarbonisation roadmap is business-led and executed through locally managed plans. Our expert climate action team provides central oversight and roadmap coordination that builds on our significant experience in carbon reduction across different geographies, functions and business types, where for many years our dedicated team of experts have been active. Read more about our decarbonisation roadmap and the key actions to deliver carbon reductions across our operations and supply chain on pages 26 to 31 our Annual Report, available on [crh.com](http://crh.com).

## Our carbon footprint



<sup>1</sup> Total direct CO<sub>2</sub> emissions – net: gross CO<sub>2</sub> emissions minus CO<sub>2</sub> emissions from alternative fossil fuels.

<sup>2</sup> The target boundary includes land-related emissions and removals from bioenergy feedstocks.

Please refer to the 'Calculation Methodologies' on pages 67 to 68 for more detailed information on the scope of our absolute carbon emissions.

## Optimising energy efficiency

### Improving energy efficiencies

We have a strong focus on improving and promoting energy efficiency. In 2022, we spent over \$2 billion on energy. Our performance teams are continuously driving energy efficiency and have developed programmes to improve energy performance. This is especially relevant to our cement and lime activities, which account for 77% of our energy use.

In Europe, 696 of our locations have certified ISO 50001 Energy Management Systems, with 56% of our materials operations in Europe having certifications in place in 2022. This certification is not common in other regions of the world, where we apply relevant systems as appropriate.

Our operating companies consistently strive to identify and implement energy-efficiency projects. For example, Tarmac, part of our Europe Materials Division, has installed a new cement mill at its Dunbar site, which requires up to 50% less energy to operate than its predecessor, resulting in significant energy savings in the production of material.

In addition, we have been part of a world first net-zero trial in producing high-quality lime using hydrogen technology to replace fossil fuels. Investing in hydrogen technology offers sustainability benefits for our business and for society. Combustion with hydrogen is clean, producing energy and water vapour rather than energy and greenhouse gases. Hydrogen production using electrolysis powered by renewables provides a potential clean energy source.

## Targeting energy reduction

In 2022, energy use across our operating locations totalled 54.5 TWh (2021: 57.0 TWh). Almost three-quarters of our businesses (representing 99% of energy use) have set energy reduction targets and programmes. As a result of these efforts, we saved approximately 0.47 TWh of energy in 2022.



**Our focus sub-goals** ∨

**Target**

- 9.1** Develop quality, reliable, sustainable and resilient infrastructure
- 9.2** Promote inclusive and sustainable industrialisation
- 9.4** Upgrade infrastructure and retrofit industries to make them sustainable
- 9.5** Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries

**How we are contributing**

**Activity**

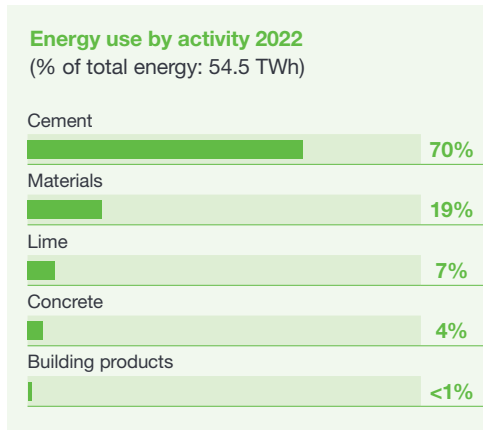
We embrace multiple breakthrough technologies, products and processes to enable more sustainable construction. We continue to focus on innovation, research and development as we progress towards our ambition for 50% of revenue to come from products with enhanced sustainability attributes by 2025.

## Investing in clean electricity

We are investing in and promoting innovation for the clean energy transition. We are actively targeting an increase of renewable electricity across our operations. In 2022, we purchased approximately 1.7 TWh of renewable electricity from external suppliers. Our overall use of renewable electricity has increased by 50% in the past 5 years and approximately 25% of our electrical energy is met from renewable sources.

We focus on procuring power from renewable sources through our renewable energy purchasing team and by partnering with organisations to install renewable energy sources, such as solar and wind. For example, Leviat, part of our Building Products Division, installed a Solar PV System at its production site in Spenge, Germany. This solar installation produces up to 438,000 kWh/year and thus covers approximately 30% of the annual consumption at site.

An increasing number of our operating companies are joining our “CRH 100% Club”, where 100% of the electricity used in their processes comes from renewable sources. A leader in our CRH 100% Club, Tarmac, part of our Europe Materials Division, continues to procure 100% clean electricity across the whole business, which allows all of its sites across the country to use electricity supplied entirely through clean UK-based wind and solar sources.

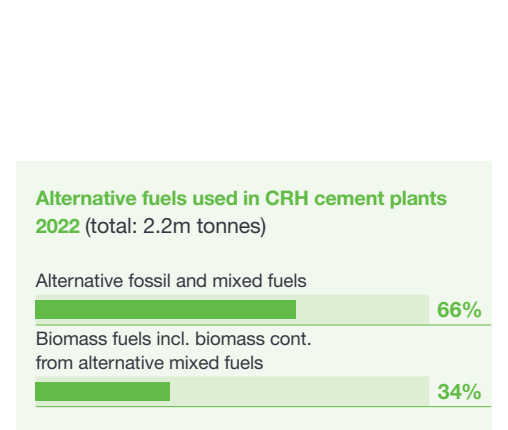


## Adopting low-carbon fuels

We are continuously innovating to introduce clean energy alternatives to our operations and the wider industry, such as replacing carbon intensive fuels with lower carbon options, including alternative fuels, especially those that contain carbon neutral waste biomass.

Many of our operating companies have already developed the capability to use a wide range of alternative fuels, including solid recovered fuels (SRF), used tyres, solvents and used oil. The use of such fuels in cement manufacture is known as 'co-processing', which involves the recovery of energy from waste, as well as using the non-combustible content to form a valuable part of the raw materials used in cement production. In 2022, our subsidiary cement plants used 2.2 million tonnes of alternative fuels, providing 36% of their fuel requirements, 53% in the European Union alone.

We are also evaluating new sources of energy, such as hydrogen, and fuel switching to lower carbon options such as oil to natural gas, which will enable a reduction in emissions. For example, in 2022 numerous trials were undertaken with external partners in North America and Europe to replace fossil fuels, such as diesel, with Hydrotreated Vegetable Oil (HVO) in our operations and onsite mobile equipment and to develop new innovative solutions to reduce CO<sub>2</sub> emissions.




## Delivering low-carbon solutions


### Harnessing circularity for a net-zero future


The use of low-carbon wastes and by-products from other industries and other low-carbon raw materials is a key lever we use to further reduce the carbon footprint of our products.



In 2022, we used a total of 8.4 million tonnes of alternative raw materials in our cement plants. These include industrial wastes and by-products, such as fly ash and ground granulated blast furnace slag (GGBS). We also use lower carbon materials like limestone and calcined clay to manufacture lower carbon cements. In addition, we use similar wastes and by-products in combination with certain cement types in the manufacture of concrete. Our cement and concrete products are carefully designed, and we use robust quality control processes to ensure they meet all technical and product performance standards. As one of the levers in our decarbonisation roadmap, we will further reduce carbon through the use of wastes and by-products.

In addition, in 2022 we used 11.8 million tonnes (2021: 10.6 million tonnes) of Recycled Asphalt Pavement (RAP) and Recycled Asphalt Shingles (RAS) to make new asphalt products for road and other surfaces. Using materials from old road surfaces to make new asphalt reduces virgin material demand and significantly contributes to lowering the carbon footprint of asphalt.




**Disclosures**  
Click here for more information on how we are increasing our use of alternative fuels 



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**Our focus sub-goals** 

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**Target**

- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- 13.2 Integrate climate change measures into policies, strategies and planning

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**How we are contributing**

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**Activity**

We continue to design for resilient construction, adapting products to help improve the resilience of the built environment to the physical impacts of climate change. As we work towards our ambition to be a net-zero business by 2050, we are executing on a plan to deliver a 30% reduction in our absolute carbon emissions by 2030.

### Targeting sustainable transport

We are committed to investing in innovative and sustainable solutions for our logistics, and delivering a sustainable transport model across road, rail and water. We are working to upgrade our transportation and mobility practices to be as fuel-efficient as possible. For example, our Americas Materials Division has incorporated innovative GPS tracking technology into product delivery, which feeds information between the hot-mix asphalt plant and the paving train to streamline deliveries. This technology reduces the environmental impact of transport and delivers significant cost savings each year.

Our operating companies have established fleet fuel reduction targets and endeavour to make use of fuel-efficient rail, boat and barge transportation where possible. In addition, many of our operating companies are leading the transition to using renewable energy to power their transport fleets.

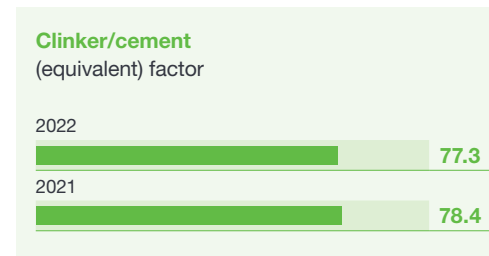
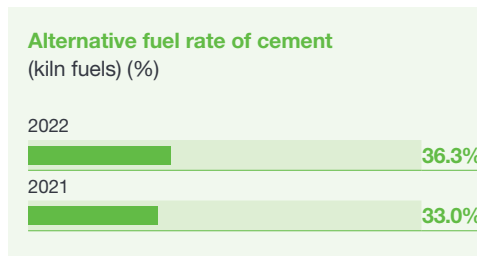
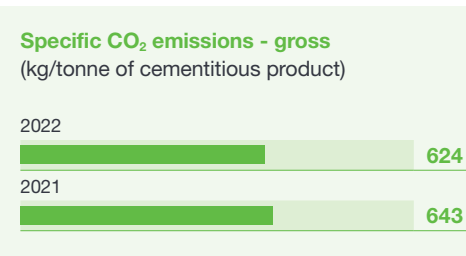
Of our transport of products by road, 24% is by our own trucks, with the remainder transported by contractors or customers. In 2022, the fuel usage in our own fleet was 155 million litres (2021: 157 million litres). We continue to focus on optimising routes, reducing fuel consumption and moving to more fuel-efficient transport. Overall, 70% of operating companies (representing 94% of total product delivered) have initiatives in place to optimise transport use, including GPS route planning, load optimisation, fleet management, engine idling alerts and maximising backloading.

### Carbon pricing

Carbon pricing is a market-based mechanism that puts a price on carbon emissions as a means of promoting emissions reduction and encouraging low-carbon investments. Of our direct CO<sub>2</sub> emissions, 47% are covered by an emissions trading scheme. In assessing capital investment projects, we use an internal carbon price mechanism which considers the context of the project, including geography and expected lifetime.

### Climate-related risks and opportunities disclosure

Ensuring the transparency and understanding of climate-related risks and opportunities across our industry is key to meeting the goals of the Paris Agreement and UN SDG 13: Climate action. Transparency is integral to our character at CRH and we have a long history of reporting on our climate performance. We continue to actively engage with multiple organisations and platforms around carbon disclosure. For example, details of our Task Force on Climate-related Disclosures (TCFD) can be found on pages 56 to 59 of our 2022 Annual Report. We are also long-standing supporters of CDP, and achieved a score of A- in 2022. In addition, we report in accordance with the relevant criteria under the EU Taxonomy regulation, part of the EU's overall efforts to implement the European Green Deal. Details of our EU Taxonomy disclosures can be found on page 270 in our 2022 Annual Report, available on [crh.com](http://crh.com).





## Collaborating for climate action

### Accelerating industry decarbonisation efforts

Accelerating decarbonisation efforts to meet our 2050 ambition for net-zero will require collaboration from governments, industries and society to develop the technologies, supporting infrastructure and the right policy environment needed to deliver a more climate-resilient world.

For the buildings and construction industry to align with initiatives such as the European Green Deal and deliver absolute carbon emission reductions, it will require support and funding from governments across a range of policy areas. This includes investments in low-carbon technologies and supporting infrastructure, robust emissions trading systems, incentives and financial mechanisms to protect against carbon leakage, sufficient access to alternative fuels and materials, and the development of progressive policies to encourage the use of, for example, renewable energy.

CRH has been actively involved in the development of the GCCA 'Roadmap for Net Zero Concrete', CEMBUREAU, the European Cement Association, '2050 Carbon Neutrality Roadmap', the National Asphalt Pavement Association (NAPA) roadmap 'Towards Net Zero Carbon Emissions', as well as the Portland Cement Association (PCA) 'Roadmap for Carbon Neutrality'.

### Climate policy positions

At CRH, we see the risks, the opportunities and the need for informed policy action. We have published our policy positions around climate lobbying, outlining our stance on climate-related topics and the drivers we believe are necessary for society to achieve the Paris Agreement.

Responsible corporate lobbying is a key principle underpinning our interactions with policymakers both directly, and indirectly through industry associations, in relation to all aspects of CRH's business, including climate change. We recently reviewed our climate lobbying practices and related disclosures to ensure they align with the expectations of our stakeholders. Read more about our climate lobbying review and positions on [crh.com](https://www.crh.com).

### Climate governance

Matters relating to climate change are a top priority across our business. They are dealt with at the highest levels of CRH, and throughout our operating companies in a strategic and collaborative way. Responsibility for formulating and executing our climate strategy sits with the Chief Operating Officer (COO), while the Group Leadership Team receives support from various executive-level committees and other working groups and functions on sustainability and climate-related issues.

In addition, climate change is a key objective in our Environmental Policy (see page 65). The Safety, Environment and Social Responsibility (SESER) Committee oversees, on behalf of the Board, policies, processes, strategies and frameworks designed to manage potential risks and opportunities associated with climate change. Climate change considerations are highlighted as standalone items in reports to the SESER Committee, spotlighting their importance within our business activities. Read more on our sustainability governance on page 59 as well as pages 104 to 106 in our 2022 Annual Report, available on [crh.com](https://www.crh.com).

### Collaborating to achieve net-zero ambitions

We believe we can play a major role in building the sustainable world of tomorrow, however we cannot achieve this alone. We must collaborate with policymakers, governments, investors, researchers, innovators, customers and end-users to drive the appropriate response in tackling climate action. Here we profile some of the industry associations we work with as we collaborate for climate action:



The Global Cement and Concrete Association (GCCA)



The Concrete Sustainability Council (CSC)



The World Business Council for Sustainable Development (WBCSD)



The National Stone, Sand and Gravel Association (NSSGA)



The European Ready Mixed Concrete Association (ERMCO)



The Portland Cement Association (PCA)



The Cement Association of Canada (CAC)



CO<sub>2</sub> Value Europe



The National Asphalt Pavement Association (NAPA)



EuLA, the European Lime Association



CEMBUREAU, the European Cement Association



The National Ready Mixed Concrete Association (NRMCA)



#### Policies

Click here to find out more information about our commitment to responsible climate lobbying on [crh.com](https://www.crh.com)





## Collaborating for climate action

At CRH, we are committed to decarbonising our business at every level – through our operations, supply chains and product distribution and use. Examples of how we are collaborating to further reduce direct and indirect emissions are illustrated below:



### Case Study: Accelerating progress on decarbonisation

We understand that we cannot solve a global and complex challenge such as decarbonisation alone. By collaborating with businesses that share our ambition to reach net-zero emissions, we can accelerate progress on decarbonisation. We have partnered with Shell to pool our resources and elevate our shared positive impact in decarbonisation action. Together we will identify and develop decarbonisation opportunities across transport, operations and materials. We will strive to reduce global emissions through vehicle electrification and EV charging infrastructure, to deploy low-carbon fuels and renewable electricity and to develop low-carbon asphalt solutions. Through knowledge sharing and development from both sides of this partnership, CRH and Shell will maximise the benefits of collaboration to deliver innovative decarbonisation solutions across Europe, North America and Asia Pacific.



### Case Study: Collaborating to develop innovative low-carbon solutions

We recognise the value of collaboration as a means of problem-solving and driving progress. Tarmac, part of our Europe Materials Division, has partnered with Align, the joint venture delivering the Central 1 section of HS2 Phase One, the new high-speed rail line in the UK. As part of this collaboration, Tarmac provided an innovative low-carbon concrete solution for the project. The low-carbon concrete delivers a 62% reduction in CO<sub>2</sub>e per cubic metre of concrete, compared to a standard CEM I concrete and uses a high ground slag (GGBS) content of over 90%. The collaboration shows the potential of low-carbon products to contribute to a more sustainable built environment and can support the decarbonisation of transport infrastructure.



### Case Study: Partnering to develop low CO<sub>2</sub> concrete for data centres

We pride ourselves on helping our customers to meet their sustainability goals and on collaborating to drive net-zero development. American Rock Products, part of our Americas Materials Division, partnered with Amazon Web Services to develop a new, more sustainable concrete mix for use in the development of new data centres. The concrete mix will help Amazon to meet their new design standards for US data centres to use low-carbon concrete which has at least 20% less embodied carbon and drive sustainable construction across the industry.





## WASTE

### Reimagining how materials are used to drive circularity

Rapid economic growth, urbanisation and an increasing population have resulted in intensive resource consumption, and consequently the release of significant amounts of waste into the environment. The building materials industry is playing a crucial role in moving towards a more sustainable circular economy model.

As a leader in the use of wastes and by-products from other industries as raw materials and fuels in our processes and products, CRH sees the circular economy as a growth opportunity for our business and a cornerstone to delivering solutions for the future.





**Lavinia Beznea,**  
Quality & Environment Manager,  
ROMCIM S.A.




"The transition to a circular economy is becoming increasingly important to combat global waste challenges. At CRH, we support this transition by managing our own waste streams and increasing our recycling of wastes and by-products from other industries in our processes and products. We help our customers to achieve their sustainability goals by offering circular, durable products which construct the essential infrastructure on which we depend."

#### In this section

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Enhancing value through the circular economy  27

Driving the circular economy  30

At CRH, we pride ourselves on producing sustainable infrastructure to connect our world. For example, Pike Industries, part of our Americas Materials Division, are contributing to the paving of the Vermont Route 9 state highway which, once completed, will form a corridor between the areas of Wilmington and Battlebro. Pike Industries is taking a circular approach to the paving project by utilising RAP and reclaimed aggregate from the old road base, thereby reducing the need to use virgin materials in the project. In addition, due to the presence of invasive species in the surrounding natural environment, careful waste management and disposal protocols are being applied as part of the project to avoid the spreading of the invasive species and protect the local biodiversity there.



Read more in this section about how we are supporting the following UN SDGs:

- SDG 11** Sustainable cities and communities
- SDG 12** Responsible consumption and production



## Addressing challenges for circularity

### Recognising global challenges

Meeting the need for new homes, buildings and infrastructure in response to an increasing population, urbanisation and economic growth, means the built environment is one of the biggest consumers of resources. Achieving responsible consumption in the built environment involves uncoupling social and economic development from an ever-increasing rise in material consumption.

To address these challenges, there is a need for the construction value chain to prioritise solutions that avoid waste and use resources more efficiently. This can be done by focusing on enhancing the longevity and resilience of our products, buildings and infrastructure, as well as designing for reuse, repurposing and recyclability. This, coupled with developing the technology needed to convert expended resources into value-added materials, allows us to deliver more resource-efficient solutions.

Shifting from linear to circular resource use requires developments in infrastructural and regulatory spaces to support and allow for the use of, and access to, alternative fuels and materials. Developing the technologies and processes needed for the efficient reuse of certain by-products in the most cost-effective way is an ongoing challenge for our industry. As a society, we need to shift the current “take-make-waste” pattern of consumption to a circular model that places more value on resources, uses them efficiently and keeps them in use for as long as possible.

### Promoting a circular economy

Worldwide, stakeholders in the built environment are seeing the potential in circular and net-zero construction. As a leader in the use of waste and by-products from other industries, we can use our reach and influence to collaborate and shape the uptake of circularity in the building materials industry and contribute to a more sustainable urban landscape.

At CRH, we fully understand the importance of transitioning to a more circular economy and preserving scarce natural resources. For decades we have been collaborating with industry partners to drive innovation across our processes and products to improve materials efficiency.

We collaborate across our value-chain and provide expert technical support to advance the development of sustainable products and solutions and improve the life-cycle performance of buildings and infrastructure and conserve resources. Our collaborative approach starts with how we design our products and processes to eliminate waste, maximise resource efficiency and enhance longevity. This includes developing products, services and solutions that reduce waste from the construction process and avoid unnecessary use of resources.

It encompasses taking an end-to-end approach to sustainable construction, considering how our products are used in the built environment. By rethinking and redesigning our products and components, we can improve the life-cycle performance of buildings and infrastructure, extending their life through enhanced durability, designing for reuse and repurposing and providing end-of-life solutions for our products.



#### Our focus sub-goals

##### Target

- 11.1 Ensure access for all to adequate, safe and affordable housing and basic services
- 11.2 Provide access to safe, affordable, accessible and sustainable transport systems
- 11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage

#### How we are contributing

As the provider of the materials, products and services that are constructing the world of tomorrow, we see significant opportunities for our business to lead the way in sustainable solutions that can withstand and protect against climate change, advance the circular economy and position CRH for future growth and improved performance.

We are supporting SDG 11 by creating a more sustainable urban landscape that can support the needs of growing populations. We do this by offering circular, durable, low-carbon products, manufactured using increased recycled materials. Read more about how our products can contribute to more sustainable cities on page 29.



## Waste

### What are the challenges and how are we managing them?

Rapid economic growth, urbanisation and a growing population are leading to unsustainable resource consumption and contributing to global waste management challenges. To successfully address these challenges, we must take action to move towards a circular economy model. At CRH, we take a collaborative, innovative approach to our product and solution development, embedding principles of circularity from the design concept to end-of-life. For example, we are continuously innovating to increase the use of alternative fuels and RAP. By eliminating waste, maximising resource efficiency and enhancing the longevity of our products, we can provide the solutions needed to reinvent construction and enhance modern living.



### Stakeholders tell us

"Reaching net-zero carbon emissions by 2050 is a challenge that requires the implementation of new technical solutions. Politecnico of Torino supports CRH in the development of innovative CO<sub>2</sub> capture processes that utilise wastes, creating products for the building sector. Our research is a contribution towards a smart and circular economy approach."

**Dr. Giuseppe Ferrara,**  
Post-doctoral researcher,  
Politecnico di Torino, Italy



#### Case studies

Click here for more information on how we are promoting a circular economy



## Enhancing value through the circular economy

### Empowering innovation

At CRH, we have the experience, creativity, and connections to lead the way in transforming the nature of sustainable construction. We are focused on developing innovative products and solutions that reduce construction times, improve the efficiency and safety of buildings and prolong the life-cycle of structures. We have over 100 ongoing research and innovation projects globally, many of which aim to promote better use of resources across the construction industry.

At CRH, we have decades of experience of collaboration and industry engagement that helps us to drive innovation across our processes and products. We will continue to focus on research and development across our operating companies and developing state of the art technologies and processes through our ICSC and CRH Ventures functions.

### Products with sustainability attributes

We offer a wide portfolio of products and building solutions with sustainability attributes. For example, Oldcastle APG, part of our Building Products Division in the US, produces Greenline and VersaStone masonry products which are manufactured using up to 40% recycled materials.

We recognise the contribution many of our products make in helping customers achieve higher scores in green building rating schemes such as BREEAM®, DGNB, and LEED®. This includes the thermal mass properties of concrete for improved building energy efficiency.

### Managing our process waste

We are dedicated to complying, as a minimum, with all regulations concerning the safe and responsible management of waste materials. Our waste minimisation practices help to address growing resource scarcity and reduce industrial waste and emissions. This includes reducing the amount of process waste materials generated, especially hazardous materials, and enhancing process efficiency.

When waste from our production processes cannot be recycled internally, it is sent to licensed facilities for recycling or final treatment. During 2022, 2.5 million tonnes of process waste was generated by our operating companies, 90% of which (2.3 million tonnes) was externally recycled. A small number of operating companies are permitted to landfill process waste onsite. These sites are operated strictly in line with permit requirements and reviewed on an annual basis. Furthermore, all operating companies take extensive precautions to prevent unauthorised waste disposal.



#### Key achievement

**90%**

of the process waste generated by our operating companies in 2022 was externally recycled.



#### Disclosures

Click here to find out more information on our Environmental KPIs



## Innovative and sustainable solutions

### What are the challenges and how are we managing them?

Constructing the circular, net-zero built environment of the future will require new, innovative technologies that will transform the way we build. At CRH, we are placing ourselves at the forefront of innovative solutions. We have decades of experience in collaboration and industry engagement that helps us to identify, advance and drive innovation opportunities. With over 100 research projects ongoing across the Group, we are committed to embracing and developing state-of-the-art technologies through our operating companies, through our ICSC and in partnership with the industry and academic institutions. We continue to invest in innovative processes to increase the recycling of waste materials into our activities and enhance value for our businesses and customers through the circular economy.



## Stakeholders tell us

“Navigating the pathway to net-zero, particularly for hard-to-abate sectors such as construction, is one of society’s biggest challenges. But it’s a challenge we can work together to overcome. Shell and CRH believe that collaboration is key to moving at speed and scale to unlock new and innovative decarbonisation solutions. By working together, we hope to maximise learning and knowledge sharing to accelerate the deployment of low-carbon solutions and technologies that will help both companies to reach net-zero.”

**Raman Ojha,**  
VP Construction & Road, Shell



## Enhancing value through the circular economy

Circularity is embedded within our business, processes and products. We utilise the waste streams of our industry and others to create value-added, quality products that have a lower impact on our world. Examples of how we use the circular economy as a value-creation opportunity are shown below:



### Case Study: Increasing circularity in construction

We are committed to reducing waste and incorporating more recycled materials into our products and solutions. For example, Staker Parson Materials & Construction, part of our Americas Materials Division, has implemented an innovative recycling effort to increase circularity in the construction of the West Davis Corridor. This involves avoiding the disposal of large amounts of waste materials by using them as a recycled road-base. Once completed, the West Davis Corridor, consisting of a freeway that goes through western Davis County, Utah, will provide additional transportation options, reduce traffic impacts, and provide connectivity throughout the region.



### Case Study: Leading circular initiatives

Circularity is embedded across our business as we strive to create solutions for global waste challenges. For example, EQIOM, part of our Europe Materials Division, has established its EQIOM R programme which aims to provide global solutions for reducing building construction impacts. The programme targets construction players, such as clients and partners, and brings together EQIOM initiatives including waste recovery, low-carbon concrete and cement, responsible management of quarries and green logistics. As a result of this programme, EQIOM has recycled approximately 300,000 tonnes of waste as alternative fuels and is increasing clinker substitution by 30% in cement mixes.



### Case Study: Partnering to create 100% recycled insulation

At CRH, our ambition is to deliver innovative products and solutions to drive progress towards a circular, net-zero built environment. CRH's structural concrete businesses in Belgium, part of our Europe Materials Division, is collaborating with a Belgian start-up specialising in the production of recycled insulation materials. As part of this collaboration, CRH Structural Concrete Belgium supplies recycled materials which are then converted into innovative insulation products. Through continuously investing in sustainable solutions, we are contributing to a more circular economy.



### Case Study: Reimagining waste streams

We believe that embedding circularity within everything we do will help to solve global challenges, such as waste and decarbonisation. For example, CRH Ventures has invested in Carbon Upcycling Technologies (CUT), a company whose pioneering technology is transforming industrial by-products into valuable additives in cement mixes. This technology helps to significantly lower CO<sub>2</sub> emissions of production processes, allowing cement and concrete manufacturers to create more sustainable products. CUT's first facility will be launched in partnership with Ash Grove, part of our Americas Materials Division, at its Mississauga location. We plan to utilise CUT technology across our locations and will continue to invest in innovative end-of-life solutions for waste.

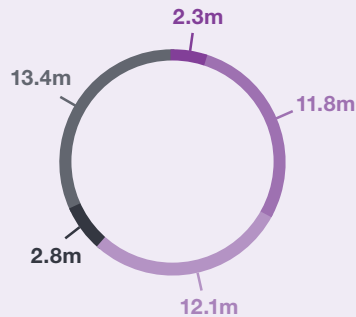


## Driving the circular economy

### Recycling and reusing our by-product materials

We are embedding circularity within our operations to preserve scarce natural resources. To reduce the waste generated from our processes and optimise use of resources, we reuse by-products, such as baghouse fines, cement kiln dust (CKD), off-spec production and other internally sourced secondary materials, within our own manufacturing processes. Where possible, we recycle these back into the same process.

In 2022, we diverted from disposal 2.8 million tonnes of by-products from our own operations by using them in our processes. By recycling and reusing these by-products, we are avoiding disposal and contributing to the circular economy.



**Alternative fuels and materials by type 2022** (total: 42.4 million tonnes)

● Alternative fuels	<b>2.3m tonnes</b>
● RAP and shingles	<b>11.8m tonnes</b>
● C&D	<b>12.1m tonnes</b>
● Internal by-products	<b>2.8m tonnes</b>
● Other reused material	<b>13.4m tonnes</b>



2030 target

**95%**

of companies to have waste recycling programmes in place by 2030

### Targeting circularity

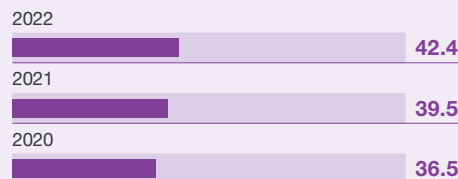
To embed circularity within our business, we set a target for 95% of our operating companies to have waste recycling programmes in place by 2030, which we are proud to say we have achieved.

In 2022, we recycled a total of 42.4 million tonnes of wastes and by-products from other industries as raw materials and fuels in our products and processes. This includes 40.1 million tonnes of alternative raw materials, substituting 9% of the virgin materials we would have otherwise used. Depending on the product, this substitution rate can be significantly higher. Over the next decade, we expect to use over 100 million tonnes of RAP from old road surfaces as part of new road surfacing products.

See pages 18 and 21 for more information on how we are promoting innovation in technologies that increase our use of alternative materials and contribute to the circular economy.

### Recycled materials

(million tonnes)



## Providing circular product solutions

We are reimagining and redesigning our products and components to improve material efficiency and the life-cycle performance of buildings and infrastructure, as well as provide end-of-life solutions for our products.

We collaborate with our supply chain and operate our own businesses to collect and process waste and by-products from both our own and other construction and industrial processes. We use these as beneficial components of our products, such as cement, concrete and asphalt, or as products in their own right, such as recycled aggregates. We reuse and recycle a wide range of wastes and by-products including RAP and RAS, construction and demolition (C&D) waste, fly ash and GGBS, along with many other materials. We apply strict quality control processes and design all our products to optimise and ensure their long-term performance.

Alongside our use of wastes as raw materials, in 2022, we used 2.3 million tonnes of alternative fuels, 2.2 million tonnes of which was used in our cement operations alone. Known as co-processing, we not only recover the energy from the fuel, but also the non-combustible components make up a useful part of the cement chemistry, so there is no waste.

The amount of waste from other industries that we consume as alternative raw materials and fuels is 173 times greater than the amount of waste we dispose of, making CRH a net user of waste. We are the largest recycler of building materials in North America. In addition, through our Building Products Division we provide a wide range of structural precast elements and modular building systems that use offsite manufacturing methods to support the transition to a circular economy through their optimised design, material efficiency and waste minimisation.



### Our focus sub-goals

#### Target

- 12.2 Achieve the sustainable management and efficient use of natural resources
- 12.4 Achieve environmentally sound management of wastes through their life-cycles
- 12.5 Substantially reduce waste generation through prevention, reduction, recycling and reuse
- 12.6 Encourage companies to adopt sustainable practices and integrate sustainability information into reporting

### How we are contributing

At CRH, we take an end-to-end approach to sustainable construction, working with our stakeholders to continuously improve how our products are used in the built environment and to champion the transition to a circular economy in support of SDG 12. By rethinking and redesigning our products and components, we can improve the life-cycle performance of buildings and infrastructure, extending their life through enhanced durability and providing whole-life solutions for our products.

In 2022, we recycled 2.8 million tonnes of internal by-products by using them in our processes. In addition, we are increasing our offering of products and solutions that are made using recycled materials, supporting our ambition for 50% of product revenue to come from products with enhanced sustainability attributes by 2025. See page 30 for more information on our contribution to the circular economy.



## Driving the circular economy

We endeavour to create products that have improved life-cycle performances and increased levels of recycled materials, while always maintaining our high standards of quality. Examples of our circular products being used in the built environment are shown below:



### Case Study: Creating sustainable solutions for waste streams

We strive to provide sustainable solutions to the challenges facing waste streams globally. For example, JURA Materials, part of our Europe Materials Division, are contributing to the development of the new energy-efficient Kebag Enova waste incineration plant in Zuchwill, Switzerland. JURA Materials are providing 52,000m<sup>3</sup> sustainable cement and concrete for the construction of the new incineration plant. These products contain recycled aggregates and reduced clinker concentrations compared to traditional mixes, resulting in CO<sub>2</sub> reductions of 10-20% per m<sup>3</sup> of concrete. The building is due to be completed in 2025 and will produce more electricity and district heating than its outdated predecessor.



### Case Study: Driving sustainable construction

We are reinventing the way the world is built by embedding circularity within the urban landscape. For example, Prefaco and Ergon, both part of our Europe Materials Division, partnered on the development of the ZIN building project, reinventing part of the World Trade Centre complex in the North area of Brussels, Belgium. By delivering circular concrete elements for the project, Prefaco and Ergon transformed the rubble that resulted from the demolition of the former WTC towers into 3,500 tonnes of high-quality aggregates which were recycled into the concrete elements being used in the new ZIN building. In total, approximately 30% of the concrete used in the project came from recycled material, the first time circular products were used on such a large-scale in Belgium. Prefaco and Ergon were jointly awarded the 'Cradle to Cradle' silver certificate in recognition of this project as an example of circular construction.



### Case Study: Delivering circular solutions

Our products and services help to deliver a circular, net-zero future that meets the needs of modern living. For example, Michigan Paving & Materials (MPM), part of our Americas Materials Division, is leading the I-69 Design Build project in Southwest Michigan. This reconstruction project will improve connectivity across Southern Michigan and enhance nearby infrastructure such as bridges. MPM is recycling the entirety of the old pavement and utilising it as road base aggregate and recycled asphalt product that will be incorporated into new asphalt pavements for I-69. The result will be an improved and durable interstate that better serves motorists travelling through Michigan.



### Case Study: Creating circular infrastructure

We understand the importance of improving vital infrastructure so that it remains strong, safe and resilient. For example, APAC-Central, part of our Americas Materials Division, is contributing to the State Highway 20 paving project near Collinsville, Oklahoma. The previous pavement had been in place for at least 35 years and required upgrading. APAC-Central is utilising RAP in their asphalt mixes to reduce the carbon footprint of the project and to minimise the use of virgin materials. We will continue to improve our infrastructure and optimise recycled materials in our processes to create a more sustainable, connected world.

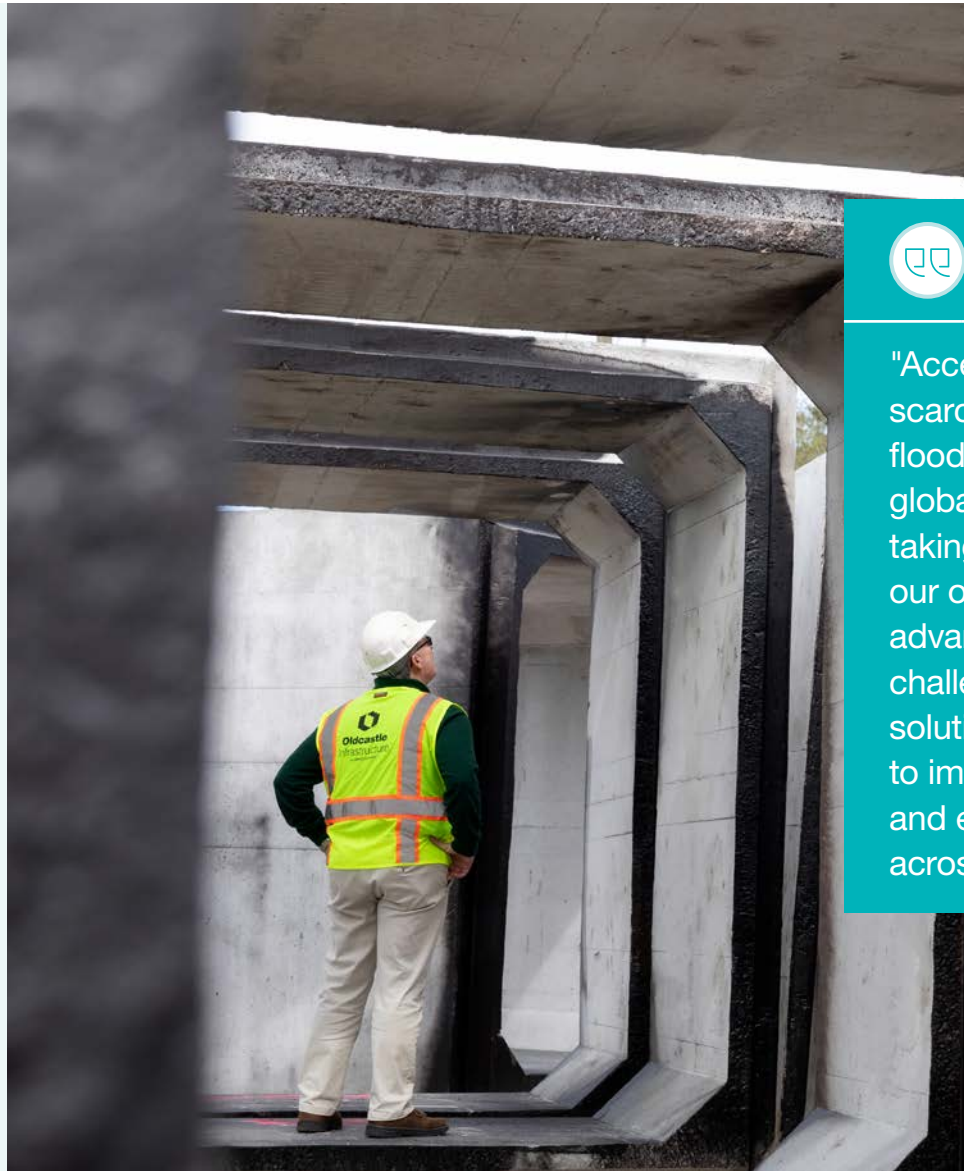


## Advancing solutions to solve global water challenges

Population growth, urbanisation and climate change are accelerating the pressure on water resources and increasing the need for resilient water supplies. We are constantly evolving and offering solutions to support the health and security of our communities through responsible water use and management.

Water management is a key consideration when designing the urban landscape. Low-impact, durable building solutions are becoming increasingly important to enhance our built environment's capacity to adapt to the physical impacts of the climate crisis – including heightened risks of flooding, drought and freezing events, all of which put pressure on our water systems. We also prioritise the importance of access to safe and clean drinking water, recognising this as a basic human right.

At CRH, we have a significant role to play in helping to solve these global water challenges through our solutions to capture, treat, manage and distribute water resources efficiently.




**Meagan Boson,**  
VP Business Performance,  
Building Products




"Access to water resources, water scarcity, water management and flooding are all challenges facing global water supplies today. We are taking action to conserve water at our own operations and importantly, advancing solutions to solve water challenges by providing the products, solutions and expertise needed to improve water infrastructure and enhance resilience to flooding across the built environment."

We are proud to be playing our role in helping to solve the challenges facing water management. For example, Oldcastle Infrastructure, part of our Building Products Division in the US, supplied an integrated water management solution to enhance the outdated drainage systems installed in the Cypress Street area of Tampa, Florida, which is historically prone to flooding. Oldcastle Infrastructure added nearly 7,300 ft of box culverts and reinforced concrete pipe with precast catch basins to the existing system, which has resulted in an increased level of drainage, as well as improved traffic, residential and business safety. In addition, the multi-solutions system is significantly reducing polluted stormwater run-off to otherwise clean water sources, thereby largely improving Tampa's overall water quality and green infrastructure.

### In this section

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Promoting responsible water use  34



Read more in this section about how we are supporting the following UN SDGs:

**SDG 6** Clean water and sanitation





## Advancing water solutions

### Advancing solutions that enhance resilience to flooding

With the increased frequency of extreme weather events caused by climate change, society requires enhanced sustainable solutions to help protect cities and the wider built environment.

Our water management solutions are helping to redesign the urban landscape so that it can adapt to changing weather patterns. Our products and solutions are critical in the water management systems needed to perform in cases of extreme flooding. These include products for flood prevention, stormwater management systems and permeable paving products that mimic hydrological processes to manage urban stormwater run-off more effectively, as well as sustainable drainage systems (SuDS) that aim to align modern drainage systems with natural water processes as part of a larger green infrastructure strategy.

In addition, our products help to improve the storage capacities of flood water temporarily during flood events and are effective in protecting against flooding. For example, our stormwater management products facilitate onsite stormwater storage, treatment and infiltration, providing much needed flood relief and allowing buildings and infrastructure to withstand extreme weather events. These stormwater solutions play a major role in helping to avoid costs of damage to society, human health, economic activities, infrastructure, cultural heritage and the environment.

We also help to equip communities with the tools to defend against potentially harmful weather events. Concrete is inherently resilient, and our solutions are an essential part of the answer to sustainable flood risk management in the form of flood defences, helping to protect people, critical infrastructure and the environment from flood risks. In the wake of extreme weather events, we work to rebuild our communities by, for example, repairing essential infrastructure such as those needed to protect against coastal erosion and future storm surges.



2025 target

**50%**

product revenue from products with enhanced sustainability attributes by 2025

### Targeting sustainable solutions

It is our ambition to deliver innovative products and solutions that enhance the circular economy and drive progress towards a resilient, net-zero built environment. These include concrete products used in water treatment and management systems, flood defences, stormwater systems and sustainable drainage systems.

To help achieve this ambition, we have a target for 50% of product revenue to come from products with enhanced sustainability attributes by 2025<sup>1</sup>. We are on track to achieve this target as products with sustainability attributes accounted for 47% of our product revenue in 2022 (2021: 47%)<sup>2</sup>. We continue to work with our customers in the design, delivery and application of circular, integrated sustainable products and solutions. Read more about how we are reimagining our products and materials to drive circularity on pages 25 to 30.

<sup>1</sup> Products with enhanced sustainability attributes are defined as those products that incorporate any, or a combination of; recycled materials; are produced using alternative energy and fuel sources; have a lower carbon footprint as compared to those produced using traditional manufacturing processes; and/or are designed to specifically benefit the environment (i.e. water treatment and management systems, products with strong thermal mass/U-values).

<sup>2</sup> Reported number in 2021 as 46% and restated in 2022 to reflect impact of discontinued operations.

## Upgrading water infrastructure and ground water recharging

Outdated water infrastructure paired with growing population sizes has led to increasing demand for new, improved infrastructure to support communities. At CRH, we have a major role to play in helping to solve the challenges facing water resources by offering solutions to upgrade and build new infrastructure and support the distribution of and access to supplies and treatment of wastewater. Taking an integrated approach to construction allows us to create holistic development solutions that meet the needs of entire communities and the local environment.

Our products and solutions also address challenges in drought-sensitive areas, through water capture, treatment and distribution, as well as through engineering measures to increase groundwater recharge to maintain aquifers' operational reserve, alleviating problems related to the overexploitation of groundwater.

### Investing in innovative water solutions

Our actions contribute to the achievement of SDG 6 Clean water and sanitation and supports SDG 12 Responsible consumption and production. As part of our journey in helping to solve the challenges facing global water resources, we will continue to invest in the development of innovative new products and solutions for water management and distribution.

In addition, we are investing in innovation to improve our current solutions and to offer new solutions to our customers. For example, in collaboration with the University of Minnesota and the University of Duke, we are enhancing our stormwater solutions using innovative nitrogen removing biofiltration media. This development will optimise the performance of our BioPod products to improve water management.



### Our focus sub-goals

#### Target

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

### How we are contributing

At CRH, we are committed to helping to solve the global challenges facing water supplies. We continue to invest in the development of innovative new products and solutions to further enhance our end-to-end solutions offerings to our customers. For example, we provide solutions to protect against flooding and we contribute to the improvement of water infrastructure through our solutions to capture, treat, manage and distribute water resources efficiently.

We also act as a responsible consumer and user of water by investing in new technologies and processes to reduce water intake from utility sources at our locations and by respecting water quality parameters. We are guided by our target for 100% of our operating companies to have water management plans in place by 2030 (see page 34 for more information).



## Advancing water solutions

We are committed to providing innovative, reliable infrastructure to assist effective water management and the provision of clean water resources to communities. In doing so, we help protect vulnerable communities and allow them to adapt to extreme weather patterns. Examples of our solutions for resiliency in the face of global water challenges are outlined below:



### Case Study: Providing solutions to wastewater management

We are committed to creating healthy, more circular and sustainable communities. For example, Finnsementti, part of our Europe Materials Division in Finland, played a significant role in the development of the new Sulkavuori wastewater treatment plant in Tampere, Finland. As part of this project, over 24,000m<sup>3</sup> of concrete was manufactured with Finnsementti's new low-carbon Kolmossementti cement. Kolmossementti cement can reduce the carbon footprint of a concrete by 40% compared to traditional cement and also has superior technical properties such as high end-strength and chemical resistance. The treatment plant will remove pollutants from wastewater allowing it to be released back into the environment. The project is expected to be completed in 2024 and will be shared by six municipalities, serving the region's industries and half a million people.



### Case Study: Upgrading water infrastructure in our communities

Access to safe and clean drinking water is an absolute necessity and is key to ensuring good public health. At CRH, we support the development and improvement of water infrastructure to enhance the quality of life in our communities. National Pipe & Plastics, Inc. (NPP), part of our Building Products Division, are using their PVC pipes to solve water challenges for communities across North America. For example, NPP enhanced access to drinking water for the rural communities in the Town of Arcadia and Wayne County by supplying pipe infrastructure to the US Department of Agriculture (USDA) Rural Development Water and Waste Disposal Loan and Grants programme. As part of this project, NPP products were installed in over 24,000 feet of new water line, enabling critical infrastructural advancements to be made that support the local communities.



### Case Study: Supporting sustainable development

We support sustainable progress and growth by managing the impacts of increasing rainfall in the built environment and working with nature. For example, Oldcastle Infrastructure, part of our Building Products Division in the US, designed a site specific StormCapture<sup>®</sup> detention solution for a Toyota car dealership in Lewisville, Texas. The dealership needed to expand its parking space in order to increase onsite capacity and required a detention system that would effectively capture and manage urban stormwater, thereby reducing flooding, erosion and sewer overflows. The tailored solution met the dealership's storage needs while also being delivered on a tight timeline with a minimal footprint. We will continue to develop solutions that support the industrial development on which society depends while adapting to changing weather patterns caused by climate change.

## Promoting responsible water use



2030 target

**100%**

of our operating companies to have water management plans in place by 2030

### Targeting water efficiency

To drive performance, we have set a target for 100% of our operating companies to have water management plans in place by 2030. We are on track to achieve this goal as 81% (2021: 80%) of our companies had water management plans in place in 2022.

We are committed to the responsible consumption of natural resources. In line with responsible water use and abstraction, water was recycled at 880 of our locations in 2022. This achievement reduced our requirement from external sources of water intake by 55%.

Initiatives such as water recycling and reducing water use through low intensity cement production processes support our 2030 water target, and we will continue implementing innovative tactics to drive best practice of water use across our operations. In addition, we are transparent surrounding our use and management of water at our locations. We have been awarded an A- in CDP for our 2022 Water Security disclosures.



### Disclosures

Click here to find out more information on our Environmental KPIs



## Reducing our water use

At CRH, we are committed to playing our part to overcome the challenges facing water resources globally by efficient management, recycling and conservation of water in our own operations. An increase in innovative solutions, such as closed-loop systems installed in manufacturing processes and increasing usage of water from settlement ponds, has resulted in a reduction in the amount of water intake from utility sources across our operating locations.

Through our continuous efforts to reuse and recycle water, we are reducing water withdrawal, discharge and wastewater treatment costs. We continue to invest in enhanced water management throughout our operating locations. We will continue this trend to ensure that we are taking action to improve water management efficiency across our locations.

### Water withdrawal and use

Water is an important resource for all our activities, most significantly in the production of aggregates and concrete and to suppress dust across our extractive activities. In 2022, our operating companies recorded an estimated water withdrawal of 114.7 million m<sup>3</sup>, a slight decrease on 2021 (116.3 million m<sup>3</sup>). Of our total water withdrawal, 74% was used in our materials activities.

Water for process activities is often abstracted from several sources, not all of which may be metered. We are targeting improvements in water accounting across all activities.

### Ensuring compliance

We comply with stringent environmental regulations to ensure that our activities, in particular raw material extraction, do not endanger local surface water or groundwater. Any water related non-compliances are resolved in line with our overarching approach to environmental excellence. To learn more about our approach to incidents of non-compliance, see page 37.

## Water quality

Water quality parameters can vary from site to site, depending on national or regional regulations, and taking into account the quality of the receiving water body. We ensure the high-quality of discharged process water by using settling ponds and pH neutralisation systems. Some of our facilities operate their own wastewater treatment plants.

Water discharge can be difficult to quantify because of the contribution of stormwater and limitations in metering. Our total water discharge in 2022 was estimated to be 32.8 million m<sup>3</sup>, with 88% discharged to surface water and the remainder to public sewers and other. To avoid potential spills of polluting materials, we implement best practice in materials storage. Our policy is to decommission all unprotected underground storage tanks.

In addition, we optimise the use of nature-based solutions at our operating locations to enhance water management. For example, Roadstone, part of our Europe Materials Division, installed an integrated constructed wetland at its site in Belgard in order to meet local water quality requirements. The solution, which was low cost and low maintenance, has improved water management at the site.

### Understanding our water-related risks

Uncertainties over water availability can be a risk factor in some regions. In 2022, we carried out an assessment using the World Resource Institute (WRI) Aqueduct Risk Atlas Tool, to identify and map potential water related risks at our operating locations. The assessment indicated that less than 1% of our active locations are identified as being in areas under “High” risk of drought severity.

The outcomes of this assessment confirm that our activities do not highly impact on water and that our locations generally do not operate in water-stressed areas. The WRI Tool allows for future scenario impacts of our existing operations, which we continue to include in our water management systems.



## Water

### What are the challenges and how are we managing them?

Population growth, urbanisation and climate change are accelerating the pressures on the built environment, including on global water supplies and infrastructure. To alleviate these pressures, demand is increasing for new water infrastructure to support communities and strengthen the resilience of cities and the wider built environment against coastal erosion, storm surges and flooding and by improving the storage capacities of stormwater. CRH has a significant role to play in meeting these requirements through our products and solutions that enable effective management of water. This includes flexible stormwater capture management systems and permeable paving blocks. In addition, we promote access to safe and clean drinking water, using our products to repair and replace outdated water infrastructure to support healthy communities.



## Stakeholders tell us

“According to the World Economic Forum, water-related issues are amongst the highest global risks on a ten-year horizon. Managing water use and adapting to too much or too little water are critical to successfully meeting the challenges of climate change. CRH has an important role to play in ensuring their own resource efficiency but also in helping society to successfully adapt.”

**Andrew Brown,**  
Group Chief Sustainability Officer,  
Anglian Water Group





# Driving sustainable leadership

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**In this image:** Sustainability is a top priority at CRH and is driven through our strong leadership. In 2022, close to 100 future leaders from across our Americas Materials and Building Products Divisions in the US and Canada came together at the UP Forum in Dallas, Texas for interactive sessions, networking with executives, and learning about business best practices, including informative sessions about Sustainability across CRH. By investing in our employees, we can ensure that CRH continues to be a sustainability leader in our industry, driven by our talented workforce.



"We are continuously improving on our strong sustainability leadership foundations, demonstrated by our progress in enhancing the natural environment, empowering our people and local communities and maintaining the highest business standards. We continue to elevate our positive impact and anticipate evolving trends in construction to ensure that we can help solve global challenges and are well positioned for value growth opportunities."

**Eunice Heath,**  
Chief Sustainability Officer





# Natural world

## Our approach

We strive to act as custodians of the natural world, embracing the opportunity to reverse nature loss and to leave a healthy environment that can support the needs of future generations. As a sustainability leader in our industry, we are constantly driving progress to create a positive impact on the world around us and to minimise our environmental footprint.

We believe that we can achieve this goal by collaborating across our supply chains, the industry and beyond to enhance the natural environment. This ensures that we are mitigating against potential adverse impacts to essential ecosystems and creating value for all.

Our high environmental standards support our ambition of helping to tackle global challenges such as decarbonisation, waste and water. We create a strong foundation of environmental protection to build upon, allowing us to unlock the potential of our sustainable solutions. We seek opportunities to drive progress throughout our operations and beyond to develop best practices and address the issues that matter most in society.





**Kevin Mitchell,**  
Director Property,  
CRH Planning & Approvals, Canada



The success of durable urban spaces is dependent on a resilient natural world. Advancing environmental action, tackling biodiversity loss and promoting reclamation and ecological enhancement is essential to secure a nature-positive future. We are committed to investing in environmental initiatives so that we can preserve and enhance essential ecosystems and leave a better world for future generations."

We recognise the value of nature and the role that our operational sites can play in offering a wide range of habitats where biodiversity can flourish. For example, Irish Cement, part of our Europe Materials Division, have multiple beehives at their Platin location, which house approximately 40,000 native Irish honeybees. The beehives are located on a purpose-built hexagonal concrete pad and are managed year-round by a local beekeeper. During Spring and Summer the bees can fly up to 2 kilometres from the hive to find nectar and pollen and in doing so they are important pollinators of native plants and crops in the surrounding farmland. Some visitors to the Platin cement factory are lucky enough to be presented with a jar of this local honey.

### In this section

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Read more in this section about how we are supporting the following UN SDGs:

**SDG 15** Life on land



## Environmental action

### Guiding our environmental performance

Our holistic approach to environmental management allows us to limit our environmental footprint at a local level and as a global company, supporting our goal of having a lasting, positive impact on the natural world. Our Environmental Policy (see page 65) underpins all our activities across CRH, allowing us to create value-added products and solutions while maintaining high standards of environmental protection across our organisation. We apply this policy across all operating companies, and we are well practiced at integrating mergers and acquisitions into our environmental management processes.

The Board has designated the SESR Committee with responsibility for monitoring developments in environmental impacts and opportunities and for ensuring our Environmental Policy is implemented in all business lines. Our location managers are accountable for the effective day-to-day implementation of the Policy across all our operating locations. They are supported by a strong network of experienced environmental managers who engage with each other and regional and internal specialists to share best practices and experience. Read more on the responsibilities of the SESR Committee on pages 104 to 106 in our 2022 Annual Report, available on [crh.com](http://crh.com).

We internally monitor implementation of our Environmental Policy and requirements through our annual Environmental Review data collection process, aiming to link these KPIs to the value we create for our business and wider society.

### Minimising environmental risks

As a responsible landholder and considerate neighbour, we are continuously working to eliminate environmental risks across our operations. The building materials industry is, by nature, an environmentally intensive sector and we strive, at a minimum, to comply with all applicable environmental regulations and permits required to minimise or eliminate negative impacts on the environment. We require all our operating companies to establish appropriate environmental management systems (EMS), in line with local environmental permit requirements. In 2022, 1,032 operating locations were certified to ISO 14001 EMS standards, an increase from 2021, and 95% of our subsidiary clinker plants were ISO 14001 certified.

### Beyond compliance

Compliance helps to establish trust and respect in our business with our stakeholders. In 2022, we continued to perform strongly in environmental compliance. During the reporting year, fines totalling \$268k were paid to regulatory authorities. These related to a number of minor issues, none of which caused significant environmental damage. We learn from such incidents to deliver an improved environmental performance, with lessons being shared throughout the Group. We operate with the intent to work beyond compliance, continuously reviewing areas for improvement and implementing best practices.



Ongoing target  
**Particulates, NO<sub>x</sub>  
and SO<sub>x</sub>**  
air emissions reduction at cement plants

### Targeting clean air

Businesses have a responsibility to reduce the impacts of their operations for the good of their employees, customers and wider communities. At CRH, we understand the adverse effects that air quality can have on human health and the environment. Clean air is one of our priorities, not only for the sustainability of our business, but for the continued protection of people and our natural world. This is why we are committed to reducing the impact of air emissions by ensuring that we meet strict air emissions limits.

Demonstrating this commitment, we have a continuing target in place to ensure our specific major air emissions including particulates, NO<sub>x</sub> and SO<sub>x</sub> remain at low levels<sup>1</sup>, and we met this in 2022.

Overall air emissions in 2022 were similar to the previous reporting year. Total stack emissions to air over recent years are shown on pages 70 to 71. We also report on our minor air emissions from cement manufacturing, and the associated coverage rates of monitoring on page 71. We ensure that we are compliant with all local and national regulations for air quality, as well as meeting our air emissions reduction targets.



## Air quality

### What are the challenges and how are we managing them?

A growing population, urbanisation and industrialisation are driving a need for improved urban environmental management, including managing air quality. Poor air quality has a significant effect on urban health and can directly impact local communities. At CRH, we are committed to ensuring that there are no adverse impacts to air quality from our operations. We monitor and control our emissions to air in order to further protect the health of our environment and of society. By installing emissions abatement equipment at our operations, we are limiting our emissions for the good of our people, neighbours and planet. Through our actions we aim to safeguard clean air as a human right and to have a positive effect on the health of our urban environment.



### Disclosures

Click here to find out more information on our Environmental KPIs



<sup>1</sup> Defined as not exceeding the three-year average for particulates, NO<sub>x</sub> and SO<sub>x</sub> specific emissions (g/t clinker) for relevant plants.



## Environmental action

Continued

### Investing in the environment

We prioritise future-focused investments to ensure that we are proactively protecting the environment. We invest in technology and efficiency projects across our operating companies to enhance environmental performance, as well as investing in the environmental element of major capital investment projects to ensure we reach our CO<sub>2</sub> reduction targets. To support delivery of our 2030 decarbonisation roadmap, we expect to invest approximately \$150 million per annum in incremental capital expenditure. See pages 16 to 24 for more information on how we are investing in innovative technologies to drive decarbonisation.

We continue to seek investment opportunities that could evolve our processes and drive improvement. We recognise that technological advancements are required to achieve our environmental targets to support our Sustainability Framework.

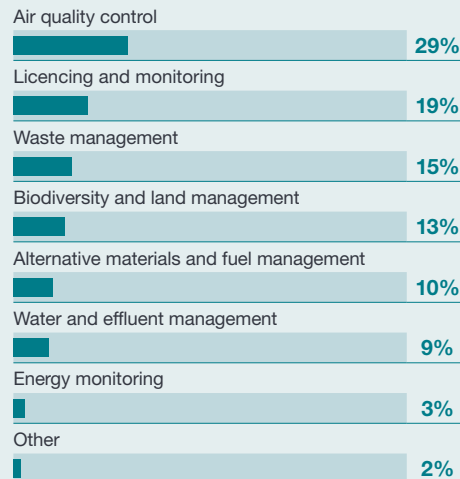
We identify investment opportunities in modern abatement technologies and capital expenditure projects, such as new abatement equipment, as well as ensuring regular maintenance of equipment at our manufacturing operations in order to minimise the impacts of our air emissions. Measures to control fugitive emissions include building enclosures for material storage and conveyor belts as well as paving plant areas and internal roads.

### How we will improve

We will continue to promote research and development through our venturing and innovation fund in order to strengthen environmental action. In addition, CRH Ventures are seeking investment opportunities in businesses that align with our environmental goals, further inspiring progress across our business and industry.

Looking to the future, we aim to continue advancing progress for society and the environment through our sustainability approach and the delivery of value-added solutions and products. Upholding strong foundations of environmental action will support our journey to solving the three global challenges of decarbonisation, waste and water - helping us contribute to an improved world. See pages 7 to 8 for more information on our Sustainability Framework.

#### Investment in environmental protection 2022 (%)



#### Policies

Click here for our Environmental Statement of Policy



#### Case Study: Collaborating to enhance biodiversity

We are constantly seeking ways to solve the problems of our customers and of wider society. For example, Demix Aggregates, part of our Americas Materials Division, recognised a market need to find a solution for the volume of excess soil generated during excavation projects. By partnering with Englobe, a firm specialising in environmental sciences and soil and biomass treatment, they identified an opportunity to build a soil treatment centre at a CRH location which allows excess and contaminated soils to be cleaned and reused as part of quarry rehabilitation work to restore land after excavation. This innovative solution further contributes to the profitability of the land rehabilitation segment for our operations in Canada, and has led to a reduction in illegal dumping, as well as a positive impact on the surrounding communities and environment.





## Environmental action

As a leader in our industry, we carefully manage our environmental risks and minimise our environmental impact. Examples of our strong environmental performance and how we reduce our environmental footprint are shown below:



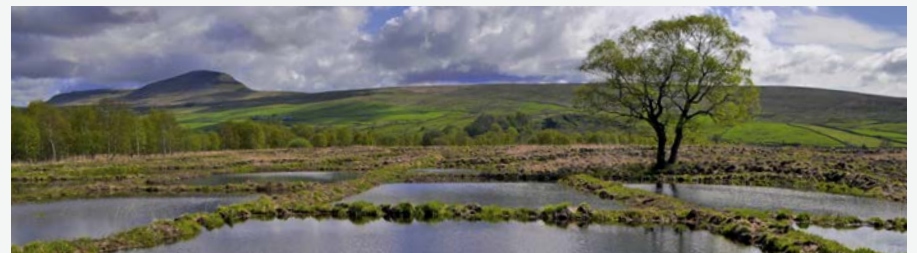
### Case Study: Providing solutions for environmental challenges

Part of our commitment to environmental action is ensuring that we use the most advanced technologies and invest in environmental systems, innovation and resources needed to reverse nature loss. For example, Callanan Industries, part of our Americas Materials Division, installed a new baghouse filter at their East Kingston location to enhance the environmental performance of their operations. The baghouse collects excess dust from the site and helps to maintain good relations with neighbouring communities.



### Case Study: Striving for environmental excellence

We pride ourselves on our strong environmental performance across our businesses. For example, Farrans, part of our Europe Materials Division, achieved Platinum level in the Business in the Community (BITC) Environmental Benchmarking Survey, the highest level of achievement. This survey positions companies against sector peers and leading organisations based on environmental management and performance in key areas, as well as the extent to which environmental business practices have been embedded within corporate strategies.



### Case Study: Enhancing the environment to solve global challenges

We are committed to reversing nature loss, enhancing natural environments and contributing to global decarbonisation goals. For example, Tarmac, part of our Europe Materials Division in the UK, partnered with Natural England and the Stories in Stone Project to fund the restoration of a raised bog between Tarmac's Arcow and Dry Rigg quarries in Yorkshire. The rewetting of the bog has led to record numbers of the great crested newt, a threatened species, as well as improving wildlife and carbon sequestration potential. We will continue to take action for the environment on a local and global scale as we strive to conserve the natural world.

## Biodiversity

### Protecting biodiversity

We aim to construct a nature-positive economy that is rich with resilient ecosystems that can adapt to and mitigate against the impacts of climate change. Biodiversity loss and climate change are increasingly being recognised as twin crises. Climate change is a primary driver of biodiversity loss, we can't solve one challenge without addressing the other. As the impacts of nature loss become more apparent, preserving biodiversity is becoming part of the social license to operate.

This is why biodiversity is such an important factor when we consider new and existing extractive activities or site restoration planning. At present, there are over 1,300 extractive operational sites across the Group.

To demonstrate that biodiversity is a priority, we have stringent mitigation plans in place and operating companies apply the principles of the 'Mitigation Hierarchy' to avoid, minimise, restore and offset any negative effects on the environment. This helps us to avoid and minimise potential impacts on water quality, the disturbance of birds, animals and plants, and the fragmentation of biodiversity corridors. In addition, environmental impact assessments (EIAs) and rehabilitation plans associated with permit applications require biodiversity management plans (BMPs) to be incorporated into site management plans.

### Collaborating for conservation

At CRH, we work with national and international organisations to pool our resources to drive best practices for biodiversity. For example, through our Americas Materials Division, we have worked with the Wildlife Habitat Council (WHC) since 2004. This non-profit group combines conservation and business to develop sites as wildlife habitats. The areas for wildlife habitats may be large depleted quarries, or small buffer zones between an operating plant and a highway. We currently have 17 WHC certified locations where wildlife is thriving.

### Enhancing natural habitats

Thriving ecosystems are an essential part of a healthy natural world which is why we must take decisive action to enhance natural habitats. We do this by preserving biodiversity and natural capital across our locations, ensuring the long-term productivity of our operations.

Extractive activities can transform land into important habitats for rare species. We enhance these habitats through incorporating specific wildlife-led design features, such as providing structures suitable for the nesting of bats, birds, bees and other species of ecological importance. Other measures include suspending blasting during nesting periods and excluding specific areas from quarrying to preserve valuable habitats.



2030 target

100%

of locations in sensitive areas to have a Biodiversity Management Plan by 2030

### Targeting nature-positivity

In 2022, 578<sup>1</sup> of Group locations were noted and managed for biodiversity. In addition, 412 of these sites are within or adjacent to sensitive areas for biodiversity, 92% of which have BMPs in place. Of the sites that have BMPs in place, 121 sites carried out BMP audits to ensure high standards of compliance.

BMPs are supported by Biodiversity Impact Assessments which assess the impact and dependency-related biodiversity risks of a site. Critical biodiversity is carefully managed where it is in close proximity to operational activities. To further drive our actions in biodiversity, we have a target for 100% of relevant locations in sensitive areas for biodiversity to have a BMP in place by 2030.

<sup>1</sup> Stated in our 2022 Annual Report, available on [crh.com](http://crh.com), as over 550 locations.

### Conserving and restoring trees

CRH is committed to conserving and restoring forests and woodlands, as we recognise nature-based solutions are integral to stemming climate change and tackling biodiversity loss. Underlying our commitment to protecting biodiversity and ensuring a net-positive impact on tree populations, all our extractive sites have comprehensive restoration plans and since 2018 we have planted around 1.2 million trees.

### Greening the built environment

Sustainable growth for cities requires transforming the way we build and manage our urban spaces. We are greening our cities by reintroducing biodiversity into the urban landscape, taking a nature-based approach to development.

Biodiversity offers benefits to the built environment by naturally mitigating against the impacts of climate change and instilling resilience against extreme weather events such as flooding and drought. In addition, nature can make urban spaces more liveable by contributing to improved water, air and soil quality and by reducing the impacts of the urban heat island effect.

Our approach to nature-centric design includes rehabilitating and transforming industrial spaces and integrating nature directly into the urban environment using green infrastructure, such as green roofs and walls. We continuously promote development projects that embed nature within their design. For example, approximately 70,000 trees, shrubs, perennials, grasses and vines were planted alongside Quebec's first carbon neutral infrastructure project, the Turcot Interchange in Montreal, Canada. Demix Agrégats, Demix Béton and Demix Construction, part of our Americas Materials Division, provided construction services and materials, including a significant amount of recycled materials, to this project, which was completed in 2021.



## Biodiversity and land use

### What are the challenges and how are we managing them?

Climate change and pollution of the environment are threatening biodiversity and natural habitats on a global scale. At CRH, we recognise the role that we play in accelerating the nature-positive economy and in preserving biodiversity. By restoring and managing lands and wetlands at our quarries and beyond, we strive to enhance and rehabilitate natural habitats and help reverse nature loss. We invest in nature-based solutions and regenerative practices to support species habitats and act as responsible custodians of the land on which we operate. We continue to collaborate with internal specialists and expert organisations to drive best practices and support the acceleration towards a nature-positive future.



## Stakeholders tell us

"As society increases its focus on investing in reversing the biodiversity crisis, the corporate world has a critical role to play in accelerating the nature-positive economy. As a WHC member for almost 20 years, CRH employees around the world manage conservation programmes with the goal to address biodiversity loss and restore ecosystems for people and planet. These proven successes for nature make CRH a leader in delivering positive contributions to global biodiversity targets."

**Margaret O'Gorman,**  
President, Wildlife Habitat Council



## Biodiversity

### Continued

#### Limiting our impacts

We are committed to ensuring that all associated areas are restored or appropriately managed at end-of-use. In 2022, c.100% of all relevant locations had restoration plans in place. This includes restoring biodiversity and ecosystems to at least pre-operational levels, where appropriate. Restoration planning processes are carefully coordinated with appropriate permitting authorities, taking full account of the needs and concerns of local communities and stakeholders.

While reinstatement and landscaping of extraction sites is typically completed close to the end of extraction activities, restoration is a continuous process, with the rate of reinstatement depending on the closure date. In 2022, 556 hectares of quarry and pit area were reinstated.

#### Driving further improvement

We have signed up to support Business for Nature's 'Call to Action', calling on governments to adopt policies to reverse nature loss in this decade. We recognise the important progress made on this 'Call to Action' at COP 15, with the agreement of a Global Biodiversity Framework.

Looking ahead, we will continue to develop our biodiversity approach through collaborations with internal specialists and expert organisations, seeking to further enhance our positive impact across the globe. For example, we are working with the WHC to develop a Biodiversity Framework to ensure that we are setting and delivering on nature-positive goals that benefit people and wildlife. In addition, we aim to use our reach and influence to encourage nature-positive development and transformation within our industry by offering green solutions to our customers and working to enhance ecosystems in the built environment.



#### Our focus sub-goals

##### Target

- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.
- 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species.

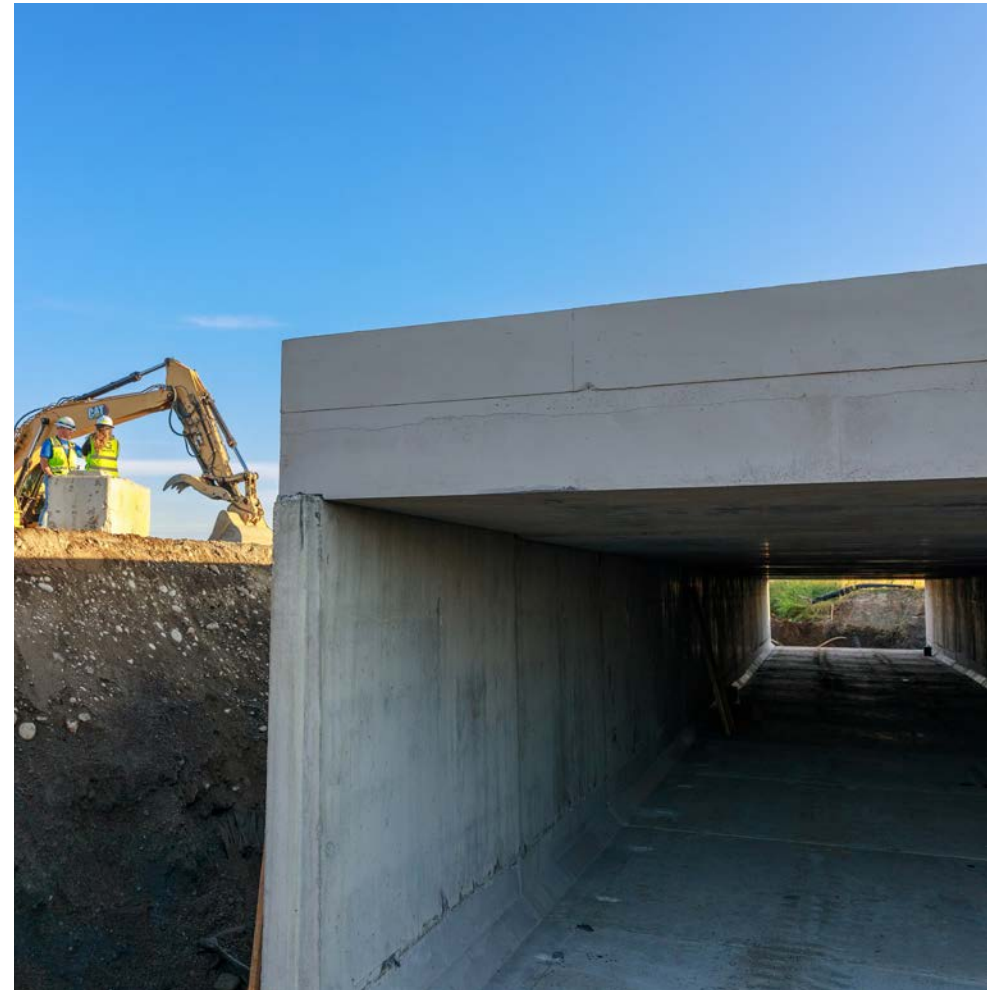
#### How we are contributing

We are committed to improving the environmental footprint of our business and playing our part to restore biodiversity in order to help meet the goals of SDG 15. By investing in nature-based solutions, we reduce our potential negative impacts on nature and help develop the technology, innovation and resources needed to reverse nature loss.

By restoring and managing lands and wetlands at quarries and other locations, we strive to enhance and rehabilitate natural habitats and help reverse nature loss. We also collaborate to protect and restore biodiversity beyond our own operations, see page 42 for examples of our nature-positive partnerships.

#### Preserving cultural heritage

We make it a priority to conserve local heritage. Prior to opening new extractive areas, where relevant, our operating companies engage qualified archaeologists to survey the area. This is to ensure no identified or potential archaeological or geological features are at risk. We are currently preserving cultural heritage at 73 company locations as part of relevant management plans, from iron age structures to medieval buildings and archaeologically significant caves.



#### Case Study: Providing innovation solutions for land restoration

Oldcastle Infrastructure, part of our Building Products Division in the US, collaborated with The Washington State Department of Transportation (WSDOT) to provide a box culvert solution for the Pepin Creek area that imitates the natural creek bed and enables migrating fish to pass through. Previous box culverts used in the Pepin Creek were inefficient and impeded fish trying to complete their migratory routes, negatively impacting their breeding. To address these issues, Oldcastle Infrastructure provided a solution by supplying replacement box culverts specifically designed for the requirements of the Creek and preassembled at the plant to reduce installation time. Restoring fish and wildlife habitats fits in naturally with CRH's overall commitment to sustainability and to date Oldcastle Infrastructure have completed 100 fish passage culvert replacements.



## Biodiversity

At CRH, we are committed to protecting and enhancing biodiversity across our locations. By establishing wildlife sanctuaries, restoration programmes and innovative nature trials at our sites, we can have a positive impact on our natural world. Examples of how we successfully implement conservation solutions across our company locations are shown below:



### Case Study: Promoting and enhancing biodiversity

We strive to provide habitats for biodiversity to flourish in. For example, United Companies, part of our Americas Materials Division in the US, are actively working to preserve biodiversity habitats along the Colorado River Bike Trail, located at its River Road Gravel Pit in Grand Junction, Colorado. In recognition of the company's commitment to conservation, the Colorado River Bike Trail was awarded a silver certification from the Wildlife Habitat Council in 2019 and again in 2022. Despite facing challenges, such as ongoing drought in the region, United Companies continue to support the development of habitats at its sites for native species including otters, herons, sandhill cranes, turtles, beavers and deer.



### Case Study: Supporting biodiversity through restoration

Restoring land and protecting biodiversity are among our highest priorities. One way in which we can serve nature is by providing habitats to wildlife. For example, JURA Materials, part of our Europe Materials Division, has created a thriving natural habitat in the landfill at their Tanninoos location in Switzerland. The landfill contributes to the preservation of rare plants and animals and has become a protected natural and agricultural area. This achievement demonstrates that development and nature can exist in harmony together.



### Case Study: Committing to biodiversity conservation

We are committed to conserving biodiversity and reversing nature loss. For example, Rudus Oy, part of our Europe Materials Division, established the Rudus LUMO programme in 2012, marking ten years of action and cooperation for biodiversity protection across their extractive locations. Over the past decade, the LUMO programme has preserved and enhanced biodiversity through multiple projects, including the 'Ecosystem Hotel' at the Raasepori location, a new habitat for barn swallows at the Korvenkylä location and the protection of cloaked frogs, beach snakes and nugget snakes at the Kråkö location. Rudus continue to use their LUMO programme to pilot new methods of restoration, regeneration and conservation. For example, the team are trialling landscaping as an alternative restoration approach and are examining the potential of restored excavation sites to act as carbon sinks.



### Case Study: Partnering for biodiversity preservation

We are committed to leading the way in environmental excellence and actively engaging in measures to promote biodiversity. For example, our Americas Materials Division has partnered with the Wildlife Habitat Council (WHC), a non-profit group that combines conservation and business, since 2004. Recently, Hallett Materials in West Des Moines, Iowa was awarded the landscaped project award from the WHC, for their Booneville Pollinator Garden that supports pollinators such as bees, butterflies and hummingbirds.





# People and communities

## Our approach

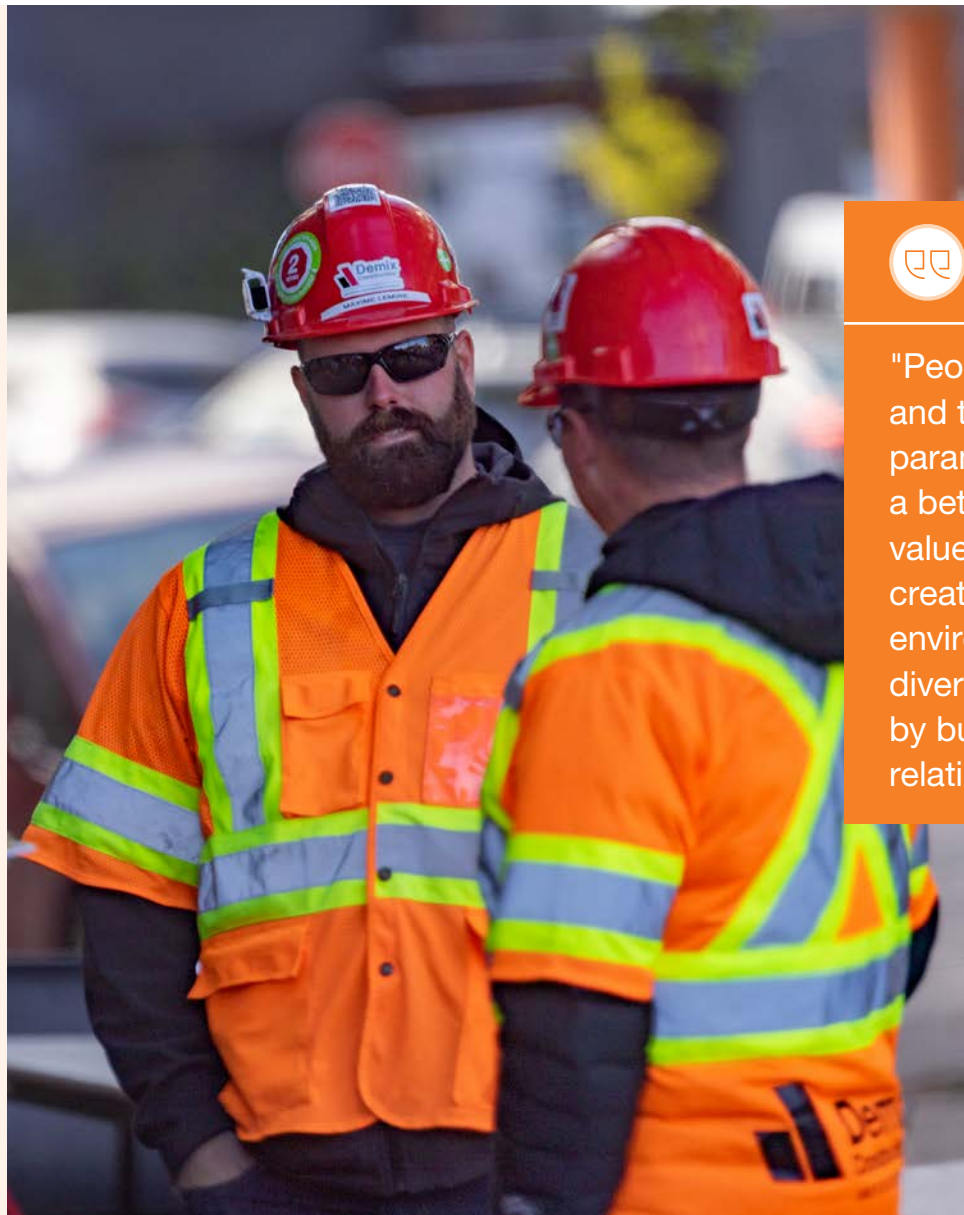
As our business advances towards becoming net-zero, it is imperative that we stand together with our employees, contractors, communities and stakeholders to provide solutions for a sustainable future.

People are our priority, and our strong business performance depends on our employees, contractors, supply chain and the relationships we build with the communities where we operate. We strive to build lasting relationships with our neighbours and listen carefully to our stakeholders. We are collaborating with stakeholders to create positive change for communities, people, society and the environment. By doing so, we are helping to advance a global transformation towards a safer, more inclusive, diverse and empowered world of work.

As we progress towards 2030, we are continuing to drive our ambition of zero harm, increasing the representation of women in senior leadership positions and strengthening relationships with our stakeholders.

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**Maryna Mukhodinova,**  
HR Director Non-Cement,  
CRH in Poland



"People are at the heart of CRH, and their safety and wellbeing are paramount. We strive to build a better future and create shared value by empowering our employees, creating an inclusive work environment that reflects the diversity of our global business and by building enduring, supportive relationships with our communities."

Through education and raising awareness we can continue to create safer working environments and practices for our employees. CRH Canada, part of our Americas Materials Division, runs a monthly safety campaign with dedicated SEE STOP DO days which are promoted across our North American businesses. Regular communications are shared in the form of employee videos and photos, as well as advice from senior leadership empowering employees to take care of their physical and mental wellbeing. This campaign reinforces CRH Canada's ongoing pledge to workplace safety – "When I SEE Something, I will STOP and DO Something".



Read more in this section about how we are supporting the following UN SDGs:

**SDG 5** Gender equality



## Safety and wellbeing

### Strengthening our safety processes

At CRH, we lead with our culture of safety and deliver solutions with safety in mind every step of the way. We are firmly committed to prioritising the health, safety and wellbeing of all those who come into contact with our operations. CRH leaders support this ambition and help to foster safe and healthy work environments at each of our locations.

### Driving our ambition of zero harm

Our culture of safety and wellbeing is embedded throughout our organisation and drives our ambition of zero harm. We understand that maintaining a safe and healthy workplace is a fundamental priority for employees and contractors, as well as being good for our business. By strengthening our safety performance and empowering employees to act we help to ensure that those who interact with our operations return home safely. However, we deeply regret to report that there were five reportable fatalities in 2022 involving one employee and four contractors. We thoroughly investigate all fatalities and share the lessons learned as we focus on our zero fatality target.

Companies across the Group take a rigorous approach to reducing risk, bringing our safety culture to bear on all aspects of the business through the implementation of our Life Saving Rules and constantly keeping health and safety at the forefront of everything we do.

We work very hard in conjunction with several other key stakeholders across the industry to improve health and safety standards. These efforts underscore our commitment to UN SDG 9 Industry, innovation and infrastructure and SDG 11 Sustainable cities and communities, as we help to create safe and sustainable cities.

### Protecting our people

Keeping people safe is a moral imperative and a salient human rights issue. We have strong policies in place to uphold our commitment to health and safety across our organisation.

Our Health and Safety Policy (see page 66), which is applied rigorously across all our operating companies, is the cornerstone of safety management at CRH. It sets out clear expectations, for our leaders and workforce, to undertake activities in a safe manner and to care for the wellbeing of all stakeholders with whom we interact. It is complemented by our industry leading CRH Life Saving Rules, designed to support our focus on eliminating fatalities.

Our global network of safety officers collaborate with regional and internal specialists to support our businesses in implementing policy and practice, as well as company health and safety processes, including contractor management and Employee Assistance Programmes (EAP).

### Managing risks

We concentrate on eliminating hazards at origin, cautiously planning and designing our activities, conducting risk assessments to identify hazards, managing risks and investing in areas for improvement. A hierarchy of control approach is followed, with the preferred control being to eliminate the risk. Our data analytics monitor our progress against our ambition and metrics. We partner with key stakeholders to develop innovative technical solutions, developing and designing clear work methods to mitigate or remediate issues as they are identified. Emergency preparedness procedures are in place at our sites, to efficiently deal with safety situations should they arise.

### Effective safety management

To continuously improve safety, our businesses have developed a single safety vocabulary through the CRH Life Saving Rules, which sets out clearly defined safety methodologies, procedures and controls, as relevant to their activities and regions. As a result, 100% of our operations have robust safety management systems in place. In 2022, 59% of locations in Europe were certified to OHSAS 18001/ ISO 45001, with the remainder using different broadly comparable systems.

In the US, we comply with the safety systems set out by the relevant safety authorities and also have developed award-winning programmes, setting new health and safety standards across our industry. Integrating Group construction safety protocols into day-to-day processes ensures consistency throughout relevant operating companies and addresses challenges that occur during construction projects.

We gain a comprehensive overview of the health and safety performance at each of our operating companies from our monthly updates and annual review. Findings are reported to the SESR Committee and are fed back to our operating companies through our network of safety officers. Safety is on the agenda at every SESR Committee meeting and there are regular safety calls with management and monthly reporting of safety performance to the Board and management.

To drive continuous improvement, we implement a global safety audit programme across our operations. In 2022, 95% of our c. 3,160 locations were audited for safety by either internal safety managers or external agencies. Breaches of safety procedures or safety incidents are subject to investigation and potential disciplinary action.



## Health, safety and wellbeing

### What are the challenges and how are we managing them?

The building materials industry involves high risk activities that may impact health and safety. We are reducing risks at every opportunity through our safety management systems which sets out our objectives around the planning and design of the work, together with training and development of our employees. We treat our responsibility to uphold safety with the highest level of importance and aim to influence safety standards throughout the industry through collaboration across our value chain. We strive to address risks and eliminate accidents to ensure the wellbeing of those who interact with our operations is protected. To further support our employees, our health and wellbeing programmes provide tools, social support and strategies for physical and mental health.



## Stakeholders tell us

"The UK suicide rate within construction is significantly higher than across the general population. With culture, stigma and pressures outside of work, people don't always feel able to share and often work through their increasing levels of stress and anxiety. Mates in Mind charity addresses the stigma of talking about mental health in the construction industry, raising employee awareness whilst spotting the early signs in themselves and others. Since 2017, we've worked with CRH to develop a training & awareness programme, highlighting the impact of mental health and growing a team of mental health first aiders ready to listen, support and signpost in confidence."

**Sarah Meek,**  
Managing Director, Mates in Mind



### Policies

Click here for our Safety Statement of Policy



## Safety and wellbeing

Continued

### Investing in safety

The health, safety and wellbeing of our employees, contractors and other stakeholders is paramount. We focus on developing this value through safety orientated initiatives, including senior leadership interactions, human performance programmes and cultural assessments.

As part of our focus on safety, we aim to make roads a safer place for all users. We have been investing in advanced technologies and robust controls, such as telematics and advanced warning systems, over the last number of years. We continue to enhance our equipment and vehicles to the highest standards and encourage others to adopt these new technologies where possible. Together with these upgrades, we continue to coach our drivers to develop safer behaviours and make the roads a safer place for everyone. We have worked with other stakeholders to progress road safety across the regions we operate and beyond.

In 2022, we have continued our relentless focus of protecting our employees, contractors and customers across the key fatality levers. Over the last five years we have invested c.\$320 million in all aspects of health, safety and wellbeing. Across these 5 years we have seen our investments increase with a clear emphasis on mobile plant safety, machine guarding, improvements in platforms and fall protection measures, electrical system upgrades and pedestrian/mobile plant segregation. We have also invested further in noise and dust reduction initiatives.

### Driving excellence in safety

Our holistic approach to safety training uses customised training techniques, including on-the-job training, technology platforms such as virtual reality and classroom training, delivered in all relevant languages. We use a combination of specialised and in-house trainers to deliver content that is relevant, practical and will be clearly understood by the participants. In addition, our frontline leadership and senior management development programmes include strategic safety modules to ensure our commitment to safety is integrated into all levels of the business. Again, in 2022, employees covered a wide range of health and safety training based on needs, specific risks and technological upgrades at their place of work. Companies also ensure employee training needs comply with specific legislative requirements. Across the Group, employees completed a total of 1.5 million hours of health and safety training, an average of 20.2 hours per employee across all categories.

To further drive excellence in safety, we have regular safety meetings, carried out through a combination of in-person and online interactions. In 2022, 79% of employees were involved in formal joint management/worker safety dialogue meetings, building on the previous year's performance.

### Ensuring contractor safety

Our numerous contractors are employed to carry out a multitude of tasks that include conducting specialised work, supplementing labour requirements and delivering products. Maintaining direct control over contractor processes and safety training is an ongoing challenge. To address this, our businesses have robust safety management systems in place, carrying out pre-qualification checks and safety induction training before the contractors come onsite. In addition, compliance with safety guidelines is included in contractual agreements for contractors, which ensures clear communication of any potential risks onsite. These management systems require all contract employees to have the relevant training and qualifications to carry out the job safely.

Our 'no-compromise' approach to contractor safety includes disciplinary measures where performance falls below expected standards. In 2022, we completed over 153,100 contractor transport safety checks to ensure that our work with contractors, contractor equipment and training complies with our rigorous safety standards. In addition, in 2022, over 2,230 contractor disciplinary actions were recorded and addressed, demonstrating our robust approach.

### Managing supplier safety standards

Ensuring appropriate safety standards within our supply chain is an ongoing challenge and we identified this as one of our salient human rights issues. We therefore work hard through our procurement processes and procedures to ensure best practice and that these employees and contractors are protected. We believe that everyone has the right to a safe and healthy place of work and suppliers are expected to comply with our safety requirements when entering our sites. Together with these requirements we carry out risk analysis and third-party auditing, with supplier safety being a core part of our Supplier Code of Conduct (SCoC) and our supply chain management (see page 62 for more information).

### Meeting customer expectations

Our customers trust us to deliver safe, high-quality products. All our products are designed and manufactured to be safe for their intended use. We work closely with regulators, standard setting agencies and academic institutions to improve the safety standards of our products and services. To reinforce safety across our operations, we share safety information, such as safety data sheets and Health Product Declarations with our customers, and closely monitor customer feedback. Our dedication to product safety, in addition to our strong safety performance, has enabled us to win tenders with customers that integrate high standards of safety into their own assessments.



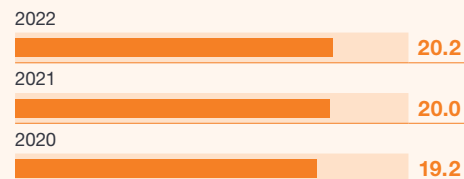
#### Case studies

Click here to find out more information about how we are driving safety excellence



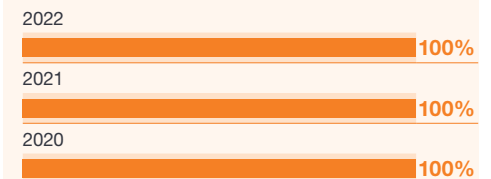
#### Safety training

(Number of hours per employee)



#### Contractor site inductions

(% of operating companies)



## Safety and wellbeing

Continued

### Collaborating for safety

We are a member of the Global Cement and Concrete Association (GCCA) and regional industry associations including CEMBUREAU, the European Cement Association, as well as National Stone Sand and Gravel Association (NSSGA), the National Ready Mixed Concrete Association (NRMCA) and the National Asphalt Pavement Association (NAPA) in the US. We take a leadership position in safety discussions with peers and the wider industry. We positively impact global standards of safety among suppliers, contractors and the industry in general through our numerous partnerships. For example, our work with the GCCA is helping to develop transport safety protocols aimed at improving road safety. In addition to enabling the building of safer road networks, we uphold the highest safety standards in our own transport operations.

In 2022, following a detailed analysis of the fire risk across our business, the health and safety team in our Europe Materials Division collaborated with our insurance companies and other specialists to develop key risk reduction best practices. In addition to this internal work, we engaged with several external industry bodies to help mitigate the risks associated with the changing fuels base as the industry increases the use of alternative fuels and materials across the sector.

Such collaborations allow us to continue to drive our ambitions and targets for safety through working with our employees, contractors and suppliers to secure safety across our operations.



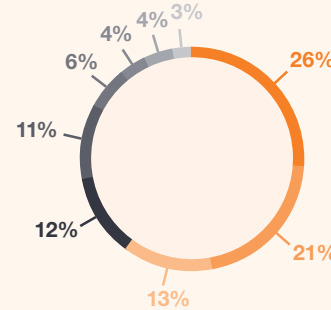
Ongoing target  
**Zero**  
fatalities, in any year

### Targeting zero fatalities

Our ambition is to have a culture of safety and wellness working towards zero harm, with eliminating fatalities being our highest priority. The mandatory CRH Life Saving Rules focus on the top causes of fatalities including contractor management, vehicle movements, falling objects and failure by individuals to abide by established plant isolation (Lock Out/Tag Out) procedures.

Achieving our target of zero fatalities is an ongoing challenge, however, we are committed to maintaining our relentless focus to realise this goal. We deeply regret to report that one employee was fatally injured as a result of a road traffic accident in 2022. In addition, four contractors were fatally injured carrying out work for CRH in 2022. We extend our sincere sympathies to their families. We thoroughly investigate all fatalities to understand the events involved and appropriate actions to prevent future incidents. The findings of these investigations are communicated across our operating companies and shared with the wider industry, with the goal of preventing future accidents through lessons learned.

We use other internal KPIs, such as recordable incidents and near miss reporting prioritising high potential events to help drive performance (see our data summary tables on page 73 for more information).

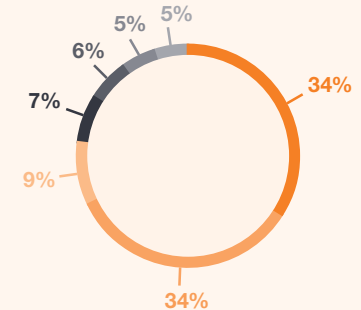
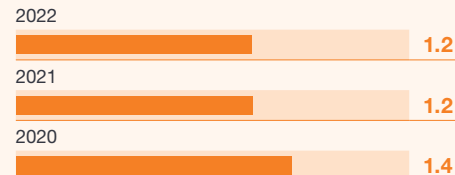


### Accidents by cause 2022

● Slips, trips, falls on the same level	26%
● Falling objects or moving objects	21%
● Other or multiple causes	13%
● Falls from height	12%
● Caught in or by fixed machinery	11%
● Burns by heat or chemicals	6%
● Lifting, overload or overexertion	4%
● Caught in or by vehicles, mobile plant	4%
● Power tools or electronic equipment	3%

### Frequency rate

(Number of lost time accidents per million work-hours)



### Accidents by injury type 2022

● Arms, hands	34%
● Legs, feet	34%
● Upper body, shoulder	9%
● Back	7%
● Head, neck	6%
● Eye	5%
● Multiple body parts	5%

### Zero accident locations

(% of locations)



### Disclosures

Click here for more information on our Safety KPIs



\* Safety data provided is employee and contractor combined unless otherwise stated.



## Safety and wellbeing

Continued

### Promoting physical and mental wellbeing

We continue to expand employee health and wellbeing initiatives and programmes across our operating companies, providing incentives, tools, support and strategies on physical and mental health. This includes optimising ergonomics, providing regular health screening, reducing noise impact, reviewing occupational hygiene and developing programmes focused on employee mental health.

Work continues across Group functions to progress employee wellbeing at work by developing key initiatives and materials to help employees to be safe and healthy while at work. In 2022, the focus was maintained on physical and mental wellbeing with the annual 'Fitness Challenge', as well as other health and wellbeing initiatives.

In 2022, 99% of operating companies had health and wellbeing programmes in place. These focused on supporting physical and mental health, providing programmes around helping employees with addiction and smoking cessation, developing drug and alcohol awareness, workplace stress management, diet, nutrition, fitness, weight management and vaccinations. Employees can provide feedback through local HR and through the individual programme organisers. There is a collaborative approach across management, safety personnel, human resources and other specialists to carefully integrate this employee feedback into our processes and development of these wellbeing programmes. In addition, 92% of operating companies also offer assistance with employee health insurance.

Employees can access these programmes in different ways, including face-to-face consultation with a medical professional, through a confidential helpline, or through an online service.

### Mitigating health risks

Across our locations, we manage specific health risks associated with the building materials industry as part of our commitment to reducing occupational-related ill health.

These include occupational noise levels, airborne dust and the potential for respirable crystalline silica (RCS), which, if not controlled, can cause long-term health issues. We use the hierarchy of controls to reduce employees' exposure to dust and RCS. In addition, we work with our employees and contractors to ensure they are aware of the potential health risks associated with exposure to RCS in order to change attitudes and behaviours. We share best practice across the industry through our membership of various trade associations to reduce exposure across the industry.

In 2022, we continued the workplace monitoring of noise, dust and RCS across CRH, in accordance with best practice and local or national requirements. These monitoring results allow employees to monitor their health and exposures on an ongoing basis. The results also allow the companies to assess the mitigation measures that are in place and to determine if they are providing the required levels of protection to prevent ill health. We track our employees health through measuring absenteeism rates and the occupational illness rate. Again, in 2022, a low incidence of occupational illness was recorded.

In addition, in 2022, we saw COVID-19 cases and the impacts reduce. As a result many of our control strategies moved to managing the disease on a risk based approach. The situation continues to be monitored with measures in place to protect our employees, contractors and their families together with our wider stakeholders.

### Championing mental wellbeing

At CRH, we want to create a place for our people to thrive. At each of our locations we aim to foster an inclusive work environment that supports everyone at all times. We know that looking after our mental health is just as important as looking after our physical health. Encouraging employees to discuss mental health and disassemble the stigma surrounding the topic is a key focus and is supported by leaders across CRH.

To promote the importance of this topic across our businesses, many of our operating companies are providing mental health support services for employees, to help address any issues they or their colleagues, friends or family may be having. During World Mental Health Awareness Month, a range of activities were organised in our three corporate offices under the banner of "Reach Out" - designed specifically to encourage people to ask for support, should they need it, or be available to provide support to others.

### Supporting our employees

Many of our operating companies also provide support through their Employee Assistance Programme (EAP), a free, confidential, independent helpline offering advice and support that is available to all employees and immediate family. For example, Tarmac, part of our Europe Materials Division in the UK, is a Business Champion of 'Mates in Mind', a charity set up to encourage discussion about mental health in the construction industry. Through this partnership, Tarmac has rolled out a training programme for employees and key managers to raise awareness of mental health issues.

To reinforce the importance of mental health, in 2022, our Americas Materials Division invited an eminent speaker on psychological safety to give the key note address at our Annual Safety Conference in the US, adding further to the mental health education programme being rolled out across the business.



#### Case Study: Promoting the importance of mental wellbeing

Looking after our mental health is just as important as looking after our physical health. Staker Parson Materials & Construction, part of our Americas Materials Division, recently partnered with Live On Utah, an initiative focused on sharing resources about suicide prevention. CRH joined other business and community leaders in Utah to launch this initiative, which included the unveiling of 26 new Ready Mixed Concrete trucks wrapped with encouraging messages for National Suicide Prevention Awareness Month and the suicide prevention hotline number.



## Safety and wellbeing

The safety and wellbeing of our people are top priorities. Examples of the precautions we take to safeguard the wellbeing of our workers are shown below:



### Case Study: Investing in safer transport

We are committed to safety excellence across our operations, both on and offsite. For example, Roadstone, part of our Europe Materials Division, introduced the first Eonic truck in Ireland to their fleet. The Eonic Low Entry unit offers a new level of safety for operating a mixer truck in an urban environment. The enhanced safety features include reduced blind spots, reduced fall risks and additional technology such as 360-degree cameras, proximity sensors and audible alarms. By investing in these safety initiatives, we can meet our ambition of zero harm and help to ensure the safety of our employees, customers, other road users and all those in the communities in which we operate.



### Case Study: Assessing safety performance

At CRH, the safety of our people is our number one priority and we are constantly innovating to improve our safety procedures as we work towards our ambition of zero fatalities. To further drive our safety management, we are implementing a new innovative software solution which allows safety professionals across our operations to track and analyse safety information from risk assessments, audit outcomes, safety training participation, safety leadership interactions and safety indicators. This innovative system was rolled out across our Europe Materials Division in 2022 and will help to drive our culture of safety excellence by promoting best practices.



### Case Study: Protecting against the risk of fires

We are committed to implementing the systems and processes necessary to drive our ambition of zero harm. For example, Romcim, part of our Europe Materials Division in Romania, has implemented an automatic fire protection system for mobile equipment at their Hoghiz location. The detection and suppression system prevents injuries and damage that could arise from potentially hard to detect and intense vehicle engine fires. Preventative action like this will reduce risks for employees at the Hoghiz plant and help to ensure they are able to complete their work safely.



### Case Study: Driving excellence in safety

Our employees encounter many safety risks and unexpected challenges, especially when working in public spaces. To enhance the safety surrounding work-zones on roads and highways, CRH has further developed its AWARE system. This new Sentry unit provides advanced warning to motorists as they are approaching the work-zone, and also alerts our workers to oncoming traffic. This new design is simple to set up, providing forward approach detection, giving the driver and the worker enough time to react before an incident occurs. The Sentry system uses lights and sirens where needed to warn drivers up to 600 feet before they come into potential contact with our workers, such as flaggers. The system also sends an emergency alert to crew members if a vehicle is approaching too fast. The Sentry unit adds an extra line of defence for our workers. Currently we have 158 AWARE systems deployed across North America and continue to innovate and protect the wellbeing of everyone that comes into contact with our operations.



## Inclusion and diversity

### Strengthening our inclusive workforce

At CRH, we stand together for Inclusion and Diversity (I&D). Together we are stronger and better equipped to dismantle any pathways that may lead to structural inequalities. Promoting inclusion and diversity goes beyond awareness building, it involves breaking down barriers and bringing the unique competencies and perspectives of our employees together to improve our world.

### Developing inclusive leadership

Fostering an inclusive and diverse work environment is key to ensuring our employees feel they can bring their most authentic selves to work. We are committed to developing our inclusive culture and advancing this requires a continuous, multi-scale effort. In 2022, we celebrated diversity by marking International Women's Day, Inclusion Week, Pride Month, Black History Month and Hispanic Heritage Month.

We listen carefully to what our employees are telling us through Employee Resource Groups (ERGs) that have been established across many of our operating companies and sponsored by senior leadership. ERGs lobby for issues that affect different groups of under-represented employees, both formally and through informal networks. For example, Mosaic is an ERG open to all employees with a mission to advance employees and communities of colour. In addition, ERGs for Women and Allies advocates for issues facing women in the workplace, such as potential barriers to advancement or a lack of inclusive PPE, for example. The vision and mission of our ERGs are to be a key enabler of CRH's commitment to an inclusive workplace by enhancing the experience for all employees.

### Driving inclusion and diversity

We have a Global I&D Council, which is chaired by our Chief Executive. The role of this Council is to set our strategic approach to I&D and ensure it is embedded in our business strategy. At a more local level, some of our operating companies have established their own I&D Councils, including Leviat, who have introduced a roadmap of I&D initiatives aimed at building a more inclusive workplace and culture.

Our I&D awareness training has been delivered to over 5,400 leaders and managers across CRH. A module on inclusive leadership was added to our Frontline Leadership Programme (FLP), which is being delivered to all CRH Frontline Leaders and their managers – around 10,000 people across 25 countries worldwide.

In addition, during 2022, approximately 250 senior leaders from across CRH participated in a six-month Inclusive Leadership Programme to advance the move beyond awareness of unconscious biases, towards deeper behavioural and skills building. The formal part of the programme has now come to an end, and leaders are working to bring their learnings to life in day-to-day actions and behaviours across the Group. By investing in inclusion, we can create lasting and sustainable change.

### Sustaining an inclusive workforce

We want to create and sustain a culture where fairness, inclusion and belonging are achievable for everyone. We focus on equality beyond numbers and ensure equal opportunities for people of all ages and those with disabilities, as well as equal pay for men and women. Our robust policies in place at our operating companies aim to ensure that every employee feels respected, valued and is given every opportunity to succeed. A total of 1,344 people with disabilities were employed across 54% of operating companies during 2022.

We aim to embed inclusion at each step of our recruitment process, from job descriptions to diverse interview panels and candidate selection methodologies. For example, Tarmac, part of our Europe Materials Division, has recently reviewed all of its policies through an inclusive lens. The business has also launched an LGBTQ+ employee community, sponsored by senior management, that hosts both events and educational workshops and is working on the introduction of a gender identity policy. Additionally, CRH companies in our Americas Materials Division hire minority owned subcontractors to work on major infrastructure projects. CRH companies partner closely with the subcontractors to progress standards across the industry and protect their employees health and wellbeing.

Looking forward, we will continue to focus on increasing the representation of people of different genders, abilities, races and ethnicities, both within our wider workforce and senior management.



## Inclusion and diversity

### What are the challenges and how are we managing them?

As the world around us changes, it has never been more important to elevate the diverse voices that make up our global society. We continuously strive to develop a more diverse and inclusive work environment and to build awareness at all levels of the organisation. CRH's I&D strategy is built on a firm commitment to nurturing inclusion as a core capability, fostering a workplace and culture that is inclusive, and ensuring our workforce reflects the communities in which we operate. To support these commitments, we have established I&D Committees across our Divisions, corporate offices and at operating company level to lead and embed change throughout CRH. In addition, over half our employees are now covered by local I&D plans, to help them achieve the I&D goals relevant to their localities.



## Stakeholders tell us

"More and more companies, including CRH, are intentionally partnering with Thurgood Marshall College Fund because they understand that, in addition to providing them with a competitive advantage, a diverse and inclusive workforce based on purposeful hiring makes the world a better place. One of the major outcomes when companies, such as CRH, are committed to diversity and inclusion is they advance a more equitable future for their communities and enhance pathways toward economic mobility for the students of Historically Black Colleges and Universities."

**Harry Williams,**  
Thurgood Marshall College  
Fund President and CEO



### Case studies

Click here for more information about how we are driving inclusion and diversity





## Inclusion and diversity

Continued



2030 target

**33%**

women in senior leadership by 2030

### Targeting representation of women

We are on a mission to increase the representation of women across a traditionally male-dominated building materials industry. Slowly the gender balance is beginning to change, however, achieving progress in this area requires a multi-scale continuous effort to empower women and foster the leaders of the future. Equality is top of mind in everything we do, which is why we have set a progressive target for 33% senior leadership roles to be held by women by 2030.

We actively monitor participation of women in the workforce. Overall, 16% of our employees are women. At the end of 2022, 33% of our Board of Directors, 15% of our senior managers and 19% of our senior leadership were women. Women make up 7% of our operations employees, similar to previous years, however, we have greater representation of women in areas such as clerical/administration, where 47% of employees are women, and head offices, where 44% of the workforce are women. We continue to focus on increasing the share of women in leadership and executing our I&D strategy across the Group.

### Partnering for positive change

We are a member of the 30% Club, which consists of Chairs and Chief Executives committed to increasing representation of women at all levels of their organisation. Additionally, CRH is a signatory to the CEO Action for Diversity & Inclusion, which is a pledge to act on supporting more inclusive workplaces. Work is ongoing at many of our operating companies to develop more inclusive and diverse work environments.

Across our operations we aim to build an inclusive and diverse organisation that reflects the communities in which we operate. By collaborating with educational institutions we also aspire to equip younger generations with the core skills needed within our industry and increase access to university. For example, the CRH Canada Bridge Scholarship Programme provides financial aid to students from underrepresented and underserved communities. In 2022, there were 9 recipients across Canada who were awarded a CRH Canada Bridge Scholarship.

In addition, during 2022, our Building Products Division partnered with the Thurgood Marshall College Fund and participated in their Leadership Institute. Representatives from Building Products led two development sessions for the 400+ participants who are students from Historically Black Colleges and Universities (HBCUs). Building relationships through events like this and an internship and mentoring programme which we offered to students from HBCUs will help CRH to be more innovative and creative as we listen and gain insights from individuals with different perspectives and life experiences.

We are also focused on encouraging the next generation of talent and increasing the interest of young people in STEM (science, technology, engineering and mathematics) subjects. We help to equip younger generations with the core skills required within our industry through collaboration with our peers and educational institutions (see page 53 for more information).



### Our focus sub-goals

#### Target

**15.5** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

### How we are contributing

We continuously strive to develop a more diverse and inclusive work environment and to build awareness at all levels of the organisation. As a key player in the industry, we believe we have an important role to play in helping to advance gender equality. This is why we strive to create and sustain a culture where people of all genders feel respected, valued and treated fairly in the workplace.

We actively monitor participation of women in the workforce and work to improve representation of women both within our wider workforce and senior management. To drive our commitment, we have set an ambitious target for 33% women in senior leadership roles by 2030. For examples of how we empower equality across CRH, see page 51.

We collaborate and partner with NGOs across all levels of education including schools and universities to build on our ambition of developing and empowering the next generation of women entering the workforce.



**Isabel Foley,**  
GLT Sponsor  
of the Corporate  
Offices I&D Committee



"Our world is in flux. It has never been more important to embrace difference, to seek out the alternative view and to hear the diverse voices that make up our global community. If CRH is to play its part in shaping our world it must reflect its many voices."



### Disclosures

Click here to find out more information on our Social KPIs





## Inclusion and diversity

We believe that inclusion and diversity is paramount to developing a successful workforce. We strive to cultivate a working environment in which our employees feel empowered, supported and free to be themselves. Examples of how we enhance our culture of inclusion and diversity across our businesses are shown below:



### Case Study: Driving a more inclusive workforce

Creating an inclusive culture and diverse company is extremely important to everyone at CRH and is shared throughout our operating companies. For example, Tarmac, part of our Europe Materials Division in the UK, was awarded the Clear Assured Silver Standard in 2022 from The Clear Company in recognition of its ongoing dedication to I&D. The Clear Company is an independent inclusion and diversity assessment organisation providing accreditation and support to businesses. Tarmac's dedication to I&D is reflected through its policies and culture. Among the key initiatives highlighted as part of the award were the launch of Tarmac's REACH (religion, ethnic and cultural heritage) employee community, completion of neurodiversity awareness training and its work to create internships with the Social Mobility Foundation.



### Case Study: Developing future CRH leaders

We aim to help our leaders to continuously develop their skills by providing training across a multitude of areas relevant to their role. For example, the CRH Global Frontline Leadership Programme (FLP) is a key enabler of our commitment to develop future leaders, providing training to over 10,000 frontline leaders and their managers across 25 countries worldwide across modules including I&D, safety and resilience. The programme has been custom designed to develop and reinforce the leadership behaviours that enable us to put safety first, every day. Recently the Global FLP welcomed the first graduates from the Netherlands, Finland and Serbia, alongside new participants from Australia.



### Case Study: Fostering a culture of equality

We are committed to creating an inclusive environment, recognising that a diverse workforce contributes to a culture that values equity, empowerment and creativity. For example, EQIOM, part of our Europe Materials Division, signed a commitment to the integration of people with disabilities. With support from Agefiph, a French organisation that supports people with disabilities at companies to improve professional mobility opportunities, EQIOM is investing in the recruitment of people with disabilities. To achieve this goal and to strengthen its diversity policy, EQIOM has set out a plan to provide employee training, raise awareness among managers, set up new communication and integration tools and provide employee supports, such as flexible and ergonomic working conditions.

## Empowered employees

### Implementing our social policy

We strive to create a work environment where curiosity provokes discussion and shared ideas. Through our continuous efforts to attract, retain and develop the top talent within our industry, we are focused on creating a CRH community that will drive performance now and for years to come.

The CRH Social Policy (see page 66) aims to cultivate a safe, inclusive work environment where our employees feel respected and are equipped with the necessary tools and skills to realise their full potential. Our Social Policy supports the delivery of our Group strategy and highlights our commitment and approach to fair employment, respecting the human rights of all our stakeholders and meeting high standards of employee engagement.

Our leaders throughout the world are committed to the principles outlined in our Social Policy and are driven by a sense of long-term responsibility. Employment policies, guidelines and objectives are implemented by the Managing Directors of each operating company with support from Human Resources teams and Group management. Implementation is verified through the Code of Business Conduct (CoBC) certification, the annual Social Review and ongoing engagement at every level of the Group. Employee matters are discussed regularly at the highest level within CRH.

In 2022, the SESR Committee was responsible for stakeholder engagement, including ensuring that employee views are taken into consideration in decision-making processes. With effect from January 2023, responsibility for employee engagement has transferred from the SESR Committee to the Nomination and Corporate Governance Committee. For more information on how the Board is driving stakeholder engagement see page 89 in our 2022 Annual Report, available on [crh.com](http://crh.com).

### Connecting with our employees

With an average of 24 employees at each location, we benefit from close working relationships between management and their teams. This aids the effective communication of strategic business updates, activities and news about CRH across the world.

At CRH we understand the importance of maintaining open communication with our employees and in recent years have used global challenges as opportunities to improve internal communication links. Across our businesses, CRH leaders communicate through channels that include video messages, town hall meetings and other online tools, each of which help employees navigate our dynamic world. In 2022, 90% of employees participated in regular employee briefings, with employees also involved in other informal meetings where open dialogue is encouraged.

As the geopolitical situation in Ukraine evolved this year our most important job has been to keep our 820 colleagues in Ukraine safe. Our teams on the ground have worked to ensure this and supported our colleagues and their families to transfer to safer locations. CRH leaders have maintained regular communication with those in Ukraine and coordinated efforts have been established to help CRH employees with what they may need in the longer-term. Throughout the crisis we have retained clear communication with our employees regarding the events taking place on the ground and have developed ways to show our support over these difficult times.

### Measuring employee engagement

Employee engagement is monitored regularly. This helps to accelerate our progress and understand what matters most to our employees. In 2022, 55% of employees were surveyed formally for employee engagement and satisfaction, covering both management and staff. Results indicated a high level of employee engagement, with 100% of those employees surveyed scoring in the “engaged” or higher categories. We adapt engagement strategies, ways of working and leadership development approaches based on employee feedback.

During 2022, the Board continued its process of direct employee engagement through in-person discussions with a cross-section of local employees in Houston, Texas during a Board visit, as well as virtual sessions with employees from across our European and Americas businesses.

### Understanding our workplaces

To grow and improve we must continually review our organisational health – how aligned we are, how we work together, and our ability to continuously learn and adapt to drive performance.

As part of our ongoing employee engagement processes, in 2022, we conducted a 'Your Voice' pulse survey. The employee feedback survey engages employees across our global businesses. The results of the survey highlighted areas of strong performance for CRH and identified the priority areas to focus on and collectively strengthen across the business. Working with the Global Leadership Team, CRH has developed clear action plans in line with these priority areas, which are being implemented across the Group. This information builds upon last year's full survey, which included an Organisational Health Survey and Inclusion Assessment which provided employees with the opportunity to share their views on how we can continue to make CRH a healthy, inclusive and high-performing organisation.



### Engaging with our employees



#### Global level

- Online newsletters
- Video messaging
- Internal news portal
- Conferences



#### Regional level

- Webcasts with Divisional Presidents
- Forums
- Seminars
- Town hall meetings



#### Company level

- Employee briefings
- Open dialogue
- Suggestion schemes
- Employee surveys
- Newsletters
- Online communications



### Policies

Click here for our Social Statement of Policy







## Empowered employees

Continued

### Training our employees

We are helping our employees succeed and ensuring they access opportunities to fulfil their goals. Advancing the skillset of our employees in areas such as safety and management, as well as other areas relevant to their role, such as frontline leadership, is a crucial part of ensuring our workforce is continuously developing. In parallel, employees also receive compliance related training on topics such as our Code of Business Conduct (CoBC).

Our comprehensive e-learning modules in various areas including I&D and resilience extend the scope of engagement and the efficiency of module delivery. Learning programmes have been further developed to allow for a combination of online modules with face-to-face engagement where possible.

In 2022, employees across our business completed a total of 2.3 million hours of virtual and in-person training, equating to 31.1 hours of training per employee. Critical training on safety, business conduct, regulatory requirements and key employee development needs continue to be prioritised. In 2022, 97% of employees received training which satisfied our internal requirement for 95% of employees to receive training annually.



### Investing in our workforce

We invest in talent development throughout our businesses, empowering our employees across all levels of education and employment to grow their careers through personal and professional development opportunities. This helps to improve talent retention and attraction for new employees looking to grow their careers at CRH.

In 2022, 87% of our operating companies offered career development opportunities or advice to employees. We renew our approach to training and development to match the evolving skills needed in our dynamic industry.

We empower our employees by providing training and network building opportunities to drive knowledge sharing across the Group. Acknowledging the importance of learning and development, we offer educational supports for job-related qualifications across all levels of education, including relevant degree-programmes. This is particularly relevant for smaller communities, where our operating companies may be a large employer locally.

Collaborating with communities to offer apprenticeships, graduate schemes and educational partnerships is a mutually beneficial venture with successful graduates and apprentices given the opportunity to gain hands-on experience across the business. For example, our CRH Technical Cement Graduate programme is progressing well across our Europe Materials Division, providing opportunities for graduates to grow their technical capabilities while learning about our business.

In addition, Tarmac, part of our Europe Materials Division in the UK, was recently awarded Gold membership by the 5% Club, a dynamic movement of employers who are taking positive action for inclusive and accessible workplace training. This award recognises Tarmac's significant contribution to the continued development of its employees through apprenticeship and graduate schemes and sponsored student course placements.

### Developing our leadership

CRH is focused on providing development and learning opportunities in competence areas common across our business functions. The 'CRH Leadership Profile' outlines the core leadership competencies needed to support employee performance, growth and success across our businesses. Leadership development and performance management encompass these core skills, abilities and behaviours. A particular focus is placed on developing women and under-represented groups in leadership roles across CRH (see page 49 for more information). Task forces and exploration teams are evolved from these development programmes with many employees participating. This allows employees to hone their leadership skills in preparation for the next step in their career.

To continuously identify high-performing and motivated leaders, we systematically review our approach to accurately combine our employees' skills and our business needs. We also emphasise employee opportunities for international mobility across our businesses, particularly for management roles, to help people grow their skills and develop their careers.



## Empowered talent

### What are the challenges and how are we managing them?

The competition for talent is a universal challenge, with shifts in demographics, remuneration expectations and flexible working arrangements putting pressure on the recruitment practices across our businesses. To attract, retain and support talent, we invest in talent development throughout our businesses, supporting our employees across all levels of education and employment to grow their careers through personal and professional development opportunities. Our ongoing focus on training enables employees and potential employees to acquire the attributes and skills needed in our dynamic industry. In addition, we strive to foster a culture of communication to better manage stakeholder engagement, including employee issues around satisfaction, engagement and wellbeing.

**Disclosures**  
Click here to find out more information on our Social KPIs

**Key achievement**  
**2.3m**  
hours of employee training across our businesses in 2022

## Empowered employees

Continued

### Managing for employee retention

Within CRH, 53% of employees have been working in our businesses for over 5 years, bringing a depth of knowledge and experience. However, the seasonal, cyclical and project-based nature of our industry means our workforce and management are required to deal with peaks and troughs in demand.

Our employee turnover rate is 26%; this includes seasonal employees, many of whom return year after year. We work to reduce the impacts of seasonality and assist employees and managers with retirement planning and downsizing when it is necessary. Fair and flexible hiring and lay-off practices apply, particularly in seasonal businesses. For major operational changes, appropriate notice periods are implemented.

### Labour practices

We review workplace practices annually across all operating companies. In 2022, we found no cases of forced or compulsory labour and no employees or contractors under the relevant legal age working at any location among our businesses. Apprenticeship and internship programmes are delivered in accordance with local legislation and are typically regulated by governmental educational agencies.

### Freedom of association

Freedom of association is a fundamental human right. We respect the rights of our employees to form and join trade unions and take part in collective bargaining. We also take care that employee representatives do not suffer discrimination. Approximately 20% of our employees were members of trade unions in 2022. A number of our operating companies are unable to disclose this information due to regional legal restrictions and we respect this position. Membership varies by country, with union membership exceeding 60% in certain countries.

Wage negotiation is carried out in keeping with local industry practice. In 2022, 72% of the wage reviews were carried out on an individual basis or through unions/groups. In 2022, there were 10 industrial disputes across operating companies, 5 of which were national strikes in Belgium with the remaining strikes in Canada, Germany and the United States.

### Attractive working conditions

We aim to create a work environment where our employees feel supported and enriched. Our global benefits are competitive, inclusive, equitable and aligned with our values. Pay packages are designed to motivate, retain and attract talent, while benefits are offered in line with industry and national standards. We embrace and comply with local wage and working time laws.

Our operating companies offer entry-level wages at or above the minimum wage, with many having policies in place to ensure a living wage. Policies or procedures are in place at our operating companies to prevent excessive working hours. We promote flexible work practices where appropriate to accommodate a healthy work-life balance for our employees. We offer similar benefits to full and part-time employees working within the same business including parental leave, retirement provisions and access to disability or invalidity schemes.

### Rewarding our employees

Our employees are central to the success of CRH. We believe that cultivating a collaborative space in which innovation and contribution are rewarded provides each of our employees with the opportunity to reach their full potential. We offer performance-based compensation and rewards for our employees, dependent upon their contribution to the success of the business and demonstration of company values.

Our reward systems are transparent and designed to reward the entire workforce, from Chief Executive to our frontline workers. Where relevant, key sustainability metrics are included. While safety may be incentivised at all levels, environmental, community and product related measures are typically incentivised at management level. In some cases, share-based incentives are provided in accordance with regulatory and industry practices in particular jurisdictions.

Given the importance of ESG topics to CRH, our stakeholders and wider society, non-financial targets have been incorporated into the Performance Share Plan for relevant executives across the organisation. These metrics are focused on decarbonisation, sustainability and inclusion and diversity. Read more on our remuneration policies on pages 108 to 133 in our 2022 Annual Report, available on [crh.com](https://www.crh.com).

### Case Study: Transforming customer engagement

Rapid technology advancement is a significant disrupting force today across all industries. At CRH, we recognise the potential of the digital transformation for driving innovation, modernisation and improving processes. Our digital teams across Leviat, part of our Building Products Division, champion and progress our digital agenda through engineering software, BIM-enabled workflows and our holistic digital customer experience. For example, the Leviat digital teams participated in a company-wide Hackathon in Amsterdam, which encouraged collaboration and innovation. One successful outcome of the event was an app designed to transform and streamline customer interactions, demonstrating another way that digitalisation can improve efficiency and productivity.



## Community and social impact

### Maintaining positive stakeholder relationships

Over 50 years, we have continuously developed and strengthened relationships with our stakeholders. Maintaining positive stakeholder relationships increases confidence in our activities and ensures we can work together more effectively. By focusing on our engagement with stakeholders, it builds trust and our understanding of their concerns and needs, and with this, our stakeholders become champions of our business, products and solutions.

### Engaging with our stakeholders

We take a collaborative approach to developing stakeholder relationships, while empowering our businesses to deliver local engagement in an inclusive and transparent way. Our stakeholders include our employees, investors, customers, suppliers, governments, regulators, trade associations, academia, local communities, NGOs and other businesses.

With over 95% of our employees living locally to our businesses, we are very much embedded in the local communities where we operate. Many of our employees give their time to our communities in various ways, including participating on the boards of charities and industry associations, as well as volunteering with charities, NGOs and educational institutions. Locally, our businesses thrive on regular engagement with customers, suppliers, neighbours and communities. In 2022, our operating companies hosted approximately 1,500 stakeholder engagement events.

### Creating lasting relationships

Strengthening existing partnerships and developing new relationships with stakeholders leads to improved engagement and communication, increased transparency, trust and a mutual understanding, enabling us to work together collaboratively to address any challenges and to take positive action to support communities. With our employees, stakeholder input is particularly important in developing, implementing and continuously improving our sustainability policies and commitments.

Depending on our line of business, location and area of interest, we use appropriate activities to interact with each of our relevant stakeholder groups. We identify potential gaps and opportunities for our businesses through the outcomes of these interactions, and this in turn helps us to develop future plans. For more information on how we interact with our stakeholder groups, see page 44 in our 2022 Annual Report, available on [crh.com](https://www.crh.com).

In addition, internal and external stakeholder feedback is crucial to our materiality process, helping us to evaluate and prioritise the most important material sustainability issues (see pages 12 to 13 for detail on our most recent materiality assessment). This feedback simplifies processes to define risks, opportunities, and KPIs, as well as to set and report strategic targets.

### Supporting our stakeholders

Driving positive changes across our value chain requires ongoing engagement and collaboration with our employees, customers, suppliers and local communities, which leads to stronger partnerships and enhances our sustainability agenda. We passionately believe in the power of working in close partnership with all stakeholders across our value chain to proactively contribute to sustainable economic growth.

The past year has seen turbulent geopolitical situations arise in various parts of the world. In each instance our number one priority has been ensuring that our employees are safe. Where possible our operating companies have adapted their processes and activities to ensure that we can continue to meet our customers' needs, keep vital infrastructure running and help our local communities.

At CRH we have responded to the situation in Ukraine in multiple ways to support our employees and their families located in the conflict zone. In addition to the direct support we are providing to our colleagues, CRH donated over \$1 million to UNICEF and matched employee giving of \$280k with another donation of \$280k by the company to support humanitarian relief efforts on the ground in Ukraine. The money is being used to set up and run four 'Blue Dot' centres along the border areas. You can read more about the ways in which we are engaging with and supporting our local communities on pages 56 to 57.



## Community and social impact

### What are the challenges and how are we managing them?

As the social landscape evolves, there is an increasing need for businesses to contribute positively to their surrounding communities. Across our locations we aim to have a positive impact on the communities in which we operate by building strong relationships and engaging in meaningful communications. Working locally, but acting as one company, our ambition is to utilise our resources, networks and partnerships to overcome the many challenges facing society. We continue to contribute to the development of our local communities across areas such as education, environment and conservation, health and wellness and provision of shelter. Community Engagement Plans are implemented by our businesses locally, to enable better understanding of the needs and aspirations of their local communities.



## Stakeholders tell us

"As we grapple with the highest levels of homelessness Ireland has ever seen, dedicated partners like CRH have never been more fundamental. By continuing to come together as one community, we can continue to provide essential services to some of the most vulnerable people in our society, empowering them to close the door on homelessness for good."

**Catherine Kenny,**  
CEO, Dublin Simon Community



### Annual Report

Click here to read more information on our stakeholder engagement in our 2022 Annual Report [crh.com](https://www.crh.com)





## Community and social impact

Continued

### Creating value for our communities

We live in an incredibly dynamic world and as a diverse and global company, it is imperative that our stakeholder relationships remain strong. We aim to help support and strengthen the communities in which we operate, understanding that collaboration is needed to elevate our positive impact.

Driving positive change across our value chain requires continuous engagement with our employees, customers, suppliers and local communities, to inspire each other to find the best solutions and deliver long-term shared value for our company and communities. Our operating companies support local livelihoods and businesses and build strong, transparent relationships with our stakeholders to positively influence local change.

### Supporting educational development

Education is a focus area and, in addition to donations, we had approximately 1,880 educational interactions with 73,900 people participating over the last two years. These interactions included career development guidance for students, bringing science alive, provision of work experience and site tours.

### Building resilient communities

We engage in successful partnerships with stakeholders to tackle the housing crisis in their local communities. For example, our Americas Materials Division sponsors a company-wide Habitat for Humanity project, uniting employees to build a home for a family. In 2022, volunteers from Harrison Construction Company, part of our Americas Materials Division, helped to clear, grade, build and provide stone and asphalt for eight houses that will become homes for families in need in a Waynesville community in North Carolina. In addition to employees' hands-on participation, we donate products including concrete blocks, pavers and mulch. More impressive than the material and financial support is our employee volunteering and commitment to these projects and the impact these types of partnerships have on neighbourhoods, communities and individuals.

### Assessing our social influence

Like many global companies, assessing the impacts of our social investments is an ongoing challenge. We focus on measuring the global impacts of our investments – including financial, non-financial and social benefits – so that we can make informed choices and scale up our positive contribution. Our Communities Reporting Tool measures the inputs and outputs of our investments and projects.

### Supporting a Just Transition

At CRH, we recognise that the decarbonisation of our business must be fair and equitable, and we take a holistic and collaborative approach to managing the social impacts of climate change and our decarbonisation strategy on our people and communities. This includes engaging in an open and transparent way around our targets and progress, as well as with our local communities to understand their needs and priorities. You can read more about the ways in which we are supporting a Just Transition on page 11.

### Investing in our communities

Community investment is one of the ways we contribute to thriving and inclusive communities. In 2022 we donated \$7.2 million to local organisations and initiatives across areas including community relations and development, environment and conservation, education and employment, health and wellness, arts and culture and provision of shelter.

Since 2008, Moravacem, part of our Europe Materials Division, has been implementing the community-based project “Partnership for the Future”. The main goal of this project is to empower non-profit organisations and local institutions with the financial means to implement projects that have the capacity to significantly enhance the life quality and living conditions in the municipality of Paracin, Serbia.



2030 target

100%

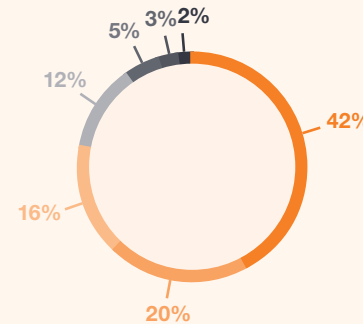
of companies to have Community Engagement Plans by 2030

### Targeting positive relationships

We strive to promote positive community relations, to understand the needs and priorities of local stakeholders. We have set a target for 100% of our operating companies to have community engagement plans in place by 2030.

Through community engagement plans we can best help the communities we work in, understand concerns and address any potential impacts.

We are proud of our progress in 2022, as 89% of our companies had plans in place. We will continue working towards our target of 100%, understanding that, by doing so, we will help meet the needs and priorities of local communities.



### Donations by type 2022

(total: \$7.2 million)

Community relations and development	42%
Humanitarian relief	20%
Education and employment	16%
Environment and conservation	12%
Provision of shelter	5%
Health and wellness	3%
Arts and culture	2%



### Case studies

Click here for more information on how we are creating value for our communities





## Community and social impact

We aim to build more inclusive and resilient communities through a shared global approach that considers the needs of each community. Examples of how our businesses support their local communities are shown below:



### Case Study: Partnering to build more resilient communities

Across our Americas Materials Division we have a long-standing, company-wide partnership with Habitat for Humanity. In addition to employees' hands-on participation, we donate products including concrete blocks, pavers and mulch. In addition, we use innovative techniques to deliver efficient, high-quality homes for families who need them. For example, CRH companies Staker Parson Materials & Construction, JBP and Tilcon Connecticut have partnered with Habitat for Humanity in their communities and supplied Insulated Concrete Forms (ICF) to build homes - a first for Habitat for Humanity. ICF is an extremely energy-efficient, fire-safe, durable building material that will ensure resilience against severe weather events that may occur in Utah and Connecticut.



### Case Study: Creating inclusive communities

At CRH, we want to support our communities in being welcoming and inclusive. For example, Employees at Fels' Münchhof Plant, part of our Europe Materials Division in Germany, volunteered to renovate two houses for Ukrainian refugees. The houses had previously been used to accommodate factory employees but were unoccupied for some time and required repair. The Münchhof Plant employees and local people gave generously of their time to make the two houses habitable again. The homes are now fully renovated and occupied by 16 Ukrainian refugees, who arrived at the local Braunschweig railway station after a four-day journey.



### Case Study: Positively impacting our communities

As local employers, our companies are truly integrated within their communities and seek opportunities to create a positive impact on their localities. For example, Callanan Industries, part of our Americas Materials Division, won both the National Asphalt Pavement Association (NAPA) Community Involvement Award and the National Ready Mixed Concrete Association (NRMCA) 'Concrete Cares Award' for its community involvement programme. Both awards aim to recognise and shine a national spotlight on the positive impact construction materials companies have in communities across the US. The Changemaker Fund is Callanan Industries' chosen charity to receive the financial donation from NRMCA as part of the award. The Changemaker Fund, of which Callanan is a founding sponsor, was established out of a recognition of racial, cultural, and gender disparities within the leadership of the non-profit sector and unequal access to organisational resources.



### Case Study: Welcoming our communities to our sites

We are embedded within our communities and welcome the opportunity to educate local students and visitors about our unique industry. For example, EQIOM, part of our Europe Materials Division, celebrated the 50th anniversary of their Rochefort-Sur-Nenon plant in 2022. Over the years, EQIOM welcomed over 650 visitors to this site to learn about the cement plant, history, processes and teams. By conducting site tours, we hope to educate and inspire the next generation interested in STEM subjects, highlighting the possibilities for fulfilling work through the construction industry.





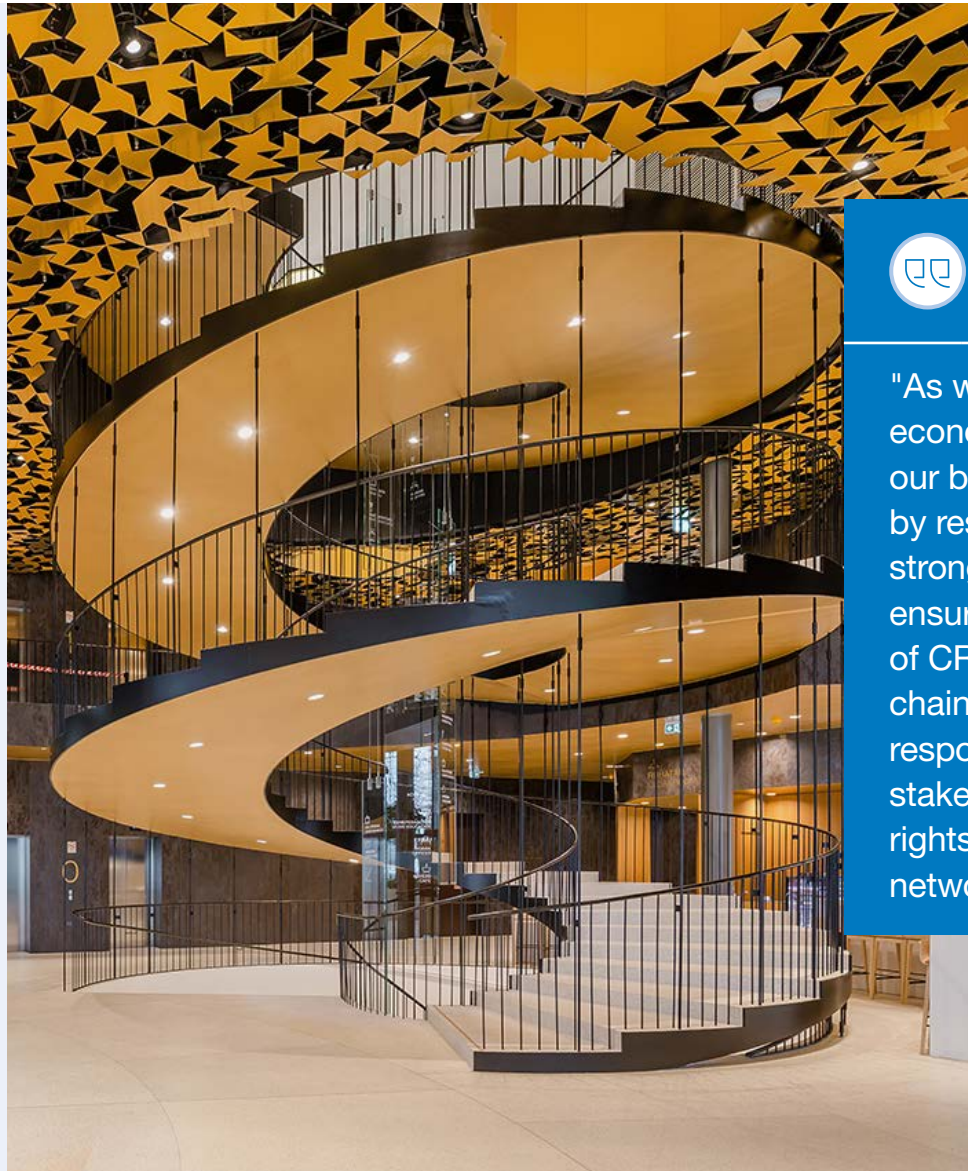
# Responsible business

## Our approach

As concerns for political, economic, social and moral challenges rise, greater expectations for responsible leadership are being placed on businesses to respond to the changing landscape of our industry, and society.

At CRH, we do what we say, we live by our word and we collaborate to deliver as one organisation. We are committed to protecting the health and safety of those working across our operations and our communities living close by, safeguarding human rights and embedding responsible business conduct at each level throughout our organisation.



We uphold our strong values across our business with our Code of Business Conduct and throughout our supply chain with our Supplier Code of Conduct. Our culture of ethical behaviour allows us to build trust with all our stakeholders. By operating with integrity, we believe we can authentically lead the way in providing sustainable construction solutions.



**Chintan Amin,**  
Deputy General Counsel,  
Environmental & Sustainability Law,  
CRH Americas

"As we navigate rising political, economic and social challenges, our business is guided and united by responsible leadership. Our strong governance structures ensure ethical behaviour at all levels of CRH and across our supply chains. We will continue to operate responsibly, build trust with our stakeholders and protect human rights across our entire supply network."

### In this section

- Governance and ethics  59
- Responsible sourcing  62

We are proud to contribute to sustainable projects that enhance the cultural impact of our communities. For example, Danucem, part of our Europe Materials Division, contributed to the construction of The House of Music building in Budapest, Hungary. This unique musical institution celebrates Hungary's musical heritage and hosts educational exhibitions for visitors including schools and the general public. Danucem provided low-carbon white cement for the entire exterior and interior terrazzo flooring of the iconic building. The receiving surface of the terrazzo is a concrete slab of 5,000 m2, which was poured from the centre of the building with a circular expansion distribution to symbolise sound waves. The building was designed in harmony with the surrounding natural environment, reflecting CRH's values.



## Governance and ethics

### Driving our corporate governance strategy

We are proud of our wide recognition as a leader in corporate governance. We continuously review our corporate governance structures and arrangements to ensure they remain of the highest standards and continue to embed all aspects of sustainability into our business strategy. This ensures our business is well-governed with good systems and behaviours aligned with our long-term interests.

Our strong governance structures support our sustainability performance which is overseen by the CRH Board and its designated Safety, Environment and Social Responsibility (SESR) Committee. To read more about the SESR Committee and the responsibilities of the CRH Board, see pages 104 to 106 in our 2022 Annual Report, available on [crh.com](http://crh.com).

### Leading with integrity

Character is a core value. It means we are reliable and can always be counted on to do the right things in the right way. Responsible business practices remain central to our operations and are embedded throughout each level of our organisation. Our values unite us in the way we work, providing the foundation of our culture and strengthening our operational integrity. As we continue to navigate a changing world, our purpose-driven culture strengthens our ability to overcome potential challenges.

### Fostering an ethical culture

At CRH, we go further than simply complying with the law, we work responsibly wherever we operate. As we adapt to new ways of working and the dynamic world around us, we continually reshape and improve our business.

Overseen by our Group General Counsel, we launched our refreshed Code of Business Conduct (CoBC), which outlines clear expectations for employees related to ethical business conduct. In this CoBC there is a recurring phrase: "It Begins with Me". This emphasises the key message that living up to our values as a company is only possible when everyone plays their part. It is the duty of every CRH employee to read, confirm understanding of, and abide by our CoBC, which can be found on [crh.com](http://crh.com). Related training materials are available to employees via the CRH training portal.

We support and encourage ethical leadership, as outlined by our Group Chief Executive in the introduction to the CoBC. Our Group General Counsel, with oversight for business ethics, sits on the executive leadership team. In addition, the Audit Committee of the CRH Board provides executive-level oversight of CRH's Legal and Compliance programme, to ensure our continued commitment to legal and ethical business practices.

### Training our employees

All new employees are required to complete our CoBC training and relevant employees undertake CoBC training and Advanced Compliance Training (ACT) on a regular basis.

Of the c.10,700 (2021: c.8,500) CRH employees that received ACT in 2022, 40% were Managerial, 46% were Clerical / Administrative and 14% were Operational. In addition, c.31,500 (2021: c.32,600) CRH employees were trained in our CoBC in 2022, 23% of which were Managerial, 35% were Clerical / Administrative and 42% were Operational.

Our Legal and Compliance team ensures training and communications materials and methods for delivery remain relevant to the risks our employees face in their roles. Additional training modules are developed for more focused topics and audiences where necessary. The CoBC and training programmes are available in 21 languages.



## Responsible corporate governance

### What are the challenges and how are we managing them?

Organisations are increasingly expected to play a role driving global social and environmental progress to meet the evolving demands of investors and wider society. In addition, businesses are faced with more stringent requirements and regulations to ensure that they are having a positive impact. We advance with the intent to accelerate global action, which is why CRH has implemented a new Sustainability Framework to help us navigate the changing landscape, supported by our executive leadership and the CRH Board. We are also undergoing an organisational restructuring to ensure that we are best positioned to help solve global challenges. We continuously embed all aspects of sustainability into our business strategy, ensuring our business is well-governed with good systems and behaviours aligned with our long-term interests.



#### Annual Report

Click here to read more information on our sustainability governance processes in our 2022 Annual Report [crh.com](http://crh.com)



## Governance and ethics

Continued

### Managing compliance risk

We drive our commitment to ethical behaviour, accountability and transparency through our business principles and practices.

Risk workshops are attended by a selection of senior business and cross functional management throughout the year. They are led by Group Risk and facilitate meaningful discussions around management’s view of risks and enable a coordinated approach with our Group Risk and Legal and Compliance teams. Mitigation against compliance risk is achieved through regular training, awareness, policies and guidance, supported by the Legal and Compliance function.

### Reporting concerns

Our employees are encouraged to report concerns about possible breaches of the CoBC to immediate and HR managers, senior management and the Legal and Compliance function. In addition, we provide formal, confidential and anonymous ways to report concerns through our CRH “Hotline” facility, a 24/7, independent, multi-lingual reporting service.

The confidential CRH "Hotline" allows employees, customers, suppliers and other external stakeholders to raise good faith concerns they may have relevant to our CoBC, inappropriate or illegal behaviour or violations of any CRH policies or local laws. All concerns are handled discreetly and are professionally investigated with appropriate actions taken based on investigation findings.

In 2022, a total of 369 concerns were raised globally. We regard any suspected violation of law, policy or our CoBC as a serious matter. Retaliation or reprisals are not tolerated at CRH. In 2022, 22 proven incidents resulted in disciplinary action. Employees are made aware that disciplinary procedures can be invoked in the event of a proven breach of CRH policies or any rule of law.

### Investigations and proceedings

We have robust internal controls to help in the fight against all forms of corruption and illegal practice. Risks of corruption and fraud are monitored by management and Legal and Compliance teams. In addition, our CRH Internal Audit function works side-by-side with Legal and Compliance in monitoring compliance with the CoBC and supporting policies, and in providing an integrated approach to assurance. In 2022, there were no investigations from external parties into allegations of corruption against the CRH Group.

Some of our operating companies are party to legal proceedings, including some in which claims for damages have been asserted against them. Having taken appropriate advice, we believe that the aggregate outcome of such proceedings will not have a material effect on CRH Group’s financial condition, operational performance or liquidity.



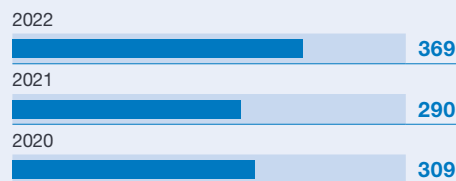
## Business ethics

### What are the challenges and how are we managing them?

As the world around us changes, our employees, potential employees the public are more invested in the conduct of the businesses they engage with. Businesses like CRH are being held to higher standards than ever before. At CRH, we are committed to the highest level of legal, ethical and moral standards, complying with the law and working responsibly. In line with this commitment, in 2022 we articulated our Purpose – ‘We Stand Together to Reinvent the Way our World is Built’. Supporting our Purpose, we continue to drive our updated CoBC which helps us live by our values that unite us across CRH. We want to help employees recognise potential areas for concern, avoid prohibited contact and seek guidance when necessary. By doing so, we can all work together to create a better future.

### Concerns reported

(Number of concerns)



### Concerns reported by type 2022

(% of total concerns)



### Policies

Click here to find out more information on our CoBC, available on [crh.com](http://crh.com)



## Governance and ethics

Continued

### Managing our human rights impacts

At CRH, we respect internationally recognised human rights – as set out in the International Bill of Human Rights and the International Labour Organisation's Core Labour Principles – across our operations and extended supply chain. In addition, we apply the UN Guiding Principles on Business and Human Rights. Our annual 'Commitment to Human Rights' Modern Slavery Statement provides details on our overarching commitments, core policies and the governance processes we have in place to manage human rights. To read our Modern Slavery Statement, visit [crh.com](http://crh.com).

Our priority is to continue to strengthen our human rights approach across our operations in line with relevant and credible international frameworks on business and human rights. We believe that slavery in all its forms – forced labour, bonded labour, compulsory labour, child labour and human trafficking – is unacceptable and we must do everything we can to prevent it.

### Our approach to human rights

Our approach to human rights has been developed over many years of protecting our stakeholders and always to doing the right things in the right way. We have developed our salient human rights impacts through our annual impact assessments, examining the risks to our operations, as well as acquisitions and supply chain. We have collaborated across Group functions as well as with human rights specialists to benchmark our assessment methodology and to help identify specific areas of risk to people coming into contact with our operations. These impacts are clearly communicated to our stakeholders in a transparent and open way.

We continue to work with internal and external stakeholders to assess our approach to human rights and risk management. We are also continuing to develop and refine our approach to human rights due diligence to better understand our potential impacts.



### Our ongoing due diligence work has highlighted four salient human rights impact areas



#### Safety of those working for CRH

There are multiple safety hazards associated with our industry. Our Safety and wellbeing section (pages 44 to 48) provides details on how we manage safety across our operations and work with our employees, contractors and industry to achieve our ambition of zero harm.



#### Health and safety of communities living close to our materials activities sites

We require all our companies to have a Community Engagement Plan in place at their sites, to help meet the needs of the local communities. For more information on our stakeholder engagement processes see pages 55 to 57.



#### Employment conditions of those working at CRH

The working conditions of our employees and contractors are monitored through our responsible sourcing and Annual Review processes. For more information on our labour practices see page 54.



#### Labour rights of those working in our extended supply chain

We source our materials and products from over 114,000 suppliers worldwide. Through our sustainable procurement programme, we work with our suppliers and stakeholders to promote human rights. For more information on our supply chain processes see pages 62 to 63.

### Our processes and policies

Our Annual Sustainability Review provides information on the people working across our operations, in particular the employees and contractors working on our sites. Through our responsible sourcing programme, we carry out key supplier risk assessments to identify any potential high-impact supply chains. Where we identify impacts, we work with our suppliers to develop remediation plans for those affected and build the capacity of suppliers to then ensure these impacts are properly managed on an ongoing basis.

Our Social Policy, Code of Business Conduct (CoBC), Supplier Code of Conduct (SCoC) and other Group-level policies ensure that we uphold our commitments to human rights. In addition, our CRH "Hotline" allows our employees, customers, suppliers and stakeholders to raise any issues of concern (see page 60).

### Continuing our human rights journey

In 2022, CRH became a signatory to the United Nations Global Compact. This is the world's largest corporate sustainability initiative and calls on companies to align strategies and operations with ten universal principles focusing on human rights, labour, environment and anti-corruption. We look forward to collaborating with other UN Global Compact participants and to further develop our culture of doing the right thing and being a key driver for a better world.

As we continue to further develop and implement our processes, we recognise the need to engage with all our stakeholders, including employees, contractors, supply chain partners, communities, NGOs and our peers to uphold and promote human rights. We will continue to strengthen our comprehensive human rights approach across our operations, with a focus on our supply chain.



## Human rights

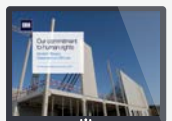
### What are the challenges and how are we managing them?

We are a global business employing c.75,800 people across 29 countries, the nature of our business means that we operate within complex supply chains. Despite these challenges, CRH is committed to building knowledge and awareness on human rights issues across our entire value chain. As a signatory of the UN Global Compact and by applying the UN Guiding Principles on Business and Human Rights, we are respecting internationally recognised human rights. Implementation of our SCoC ensures that our commitment to human rights is upheld across our supply chains. In addition, by supporting the UN SDGs, which are grounded in international human rights, we can help contribute to the protection of human rights within our operating companies, supply chains and beyond.



### Disclosures

Click here to find out more information on our Modern Slavery Statement, available on [crh.com](http://crh.com)





## Responsible sourcing

### Delivering value across our supply chains

We collaborate with our suppliers and other stakeholders to drive improvements in the supply chain and support them in providing better jobs and managing their environmental impacts. We strive to be a fair, respectful and honest partner, firmly believing that relationships built on trust and integrity will be sustainable and beneficial for all.

### Supply chain footprint

Together, our operating companies purchase around \$20 billion worth of goods and services every year from over 114,000 suppliers spread across America (58%), Europe (40%), Asia and the rest of the world (2%). We also extract raw materials – such as aggregates, sand and gravel, to use in our own processes, as well as to supply external customers.

The CRH Group Procurement Council oversees all aspects of our purchasing strategy, policy, targets and objectives. Each of our core business lines have their own supply chain footprint with various challenges and opportunities:

- Our Materials businesses are vertically integrated, often extracting much of their own raw materials, or using materials produced by other operating companies
- Our Building Products businesses source a wide range of products from manufacturers across the world, accounting for a significant number of suppliers in our total footprint

### Collaborating for improvement

Our commitment to our values goes beyond our own activities. We support the transition towards more sustainable supply chains across the entire industry through our engagement with suppliers, governments, industry bodies, businesses and other partners. By collaborating, we can find new ways to innovate for positive change, support local communities and create social value.

For example, we are a Founding Member of the Concrete Sustainability Council (CSC), which has developed a Responsible Sourcing Scheme industry standard for concrete to enable informed decisions in the construction industry. We have also partnered with CEMBUREAU on various projects to improve the sustainability of buildings.

### Promoting best practices

Sustainability is integrated into our sourcing process. We source goods and services through multiple routes, from centralised procurement to local buying and to e-sourcing. Our supplier selection and ongoing assessment processes include sustainability criteria. We increasingly build on our key supplier relationships to ensure we respond to sustainability issues and provide added value in key areas.

We assess risk at a commodity level, in line with ISO 20400 best practice. We use 12 assessment criteria covering areas such as health and safety, human and labour rights, environment, climate change and governance, to understand potential risks and identify critical suppliers. Based on the risks identified, we enhance our Category Strategy Plans to drive improvement actions at the point where we have most influence with our suppliers. We provide responsible procurement training to those staff working directly with our suppliers. The training helps equip staff with the understanding and tools to be able to spot issues and effectively engage suppliers through their Category Strategy Plans.



Ongoing target

**100%**

of suppliers compliant with Supplier Code of Conduct

### Targeting sustainable supply chains

We expect our suppliers to match our unwavering commitment to good ethical practices. To ensure our suppliers are sharing our values, we have a target for 100% of our suppliers to comply with our Supplier Code of Conduct in any given year.

In 2022, 100% of new suppliers were screened in line with our SCoC, helping to drive our commitment of delivering sustainable value across our supply chains.

### Product stewardship

Product stewardship is about understanding the potential impacts our products have on the wider environment, stakeholders and customers. Where necessary, our products are accompanied by Materials Safety Data Sheets (MSDS) containing information on use, storage and application. In addition, we share Health Product Declarations with our customers. In line with the European Regulation on Chemicals (REACH), all our companies operating within the EU provide health, safety and environmental information.

All our products are manufactured to the highest national and regional technical standards and specifications and are independently certified. In addition, many of our businesses operate to ISO 9001 Quality Management Systems, further guaranteeing product quality.

### Managing risks and impacts

Our procurement teams work in partnership with our suppliers to find solutions to potential issues. Our 'Know Your Supplier' programme is designed to highlight suppliers that are undergoing a change in their financial health, are experiencing reputation issues or are flagged in international trade sanctions. This increased due diligence ensures we can respond effectively to emerging risks and we can be more targeted in the way we manage and collaborate with suppliers.

We continue to review our supply chain risks, including cyber security, data protection, and digital connectivity, through our Enterprise Risk Management (ERM) Framework. Our commodity heatmap assessment is reviewed prior to any significant procurement project. We also work with our auditing partners to ensure our onsite assessments are fit for purpose. Read more information on our cyber security management processes and training on page 143 of our 2022 Annual Report, available on [crh.com](http://crh.com).

We are acutely aware of the impacts of global events on those working across our supplier partners. Climate change, political conflict, global health challenges, and the cost of living crisis are impacting all of us but they have the potential to be devastating for the most vulnerable in society. Through our human rights work, we are trying to identify those potentially vulnerable groups.



### Policies

Click here to find out more information on our SCoC, available on [crh.com](http://crh.com)



### Sustainable procurement strategy

Our stakeholders want assurance that the products we supply are produced in a responsible way. In order to make an impact on issues in our supply chain and ensure we practice responsible sourcing, we have committed to a sustainable procurement strategy.



#### Pathway to impact



#### Supply chain risk

CATEGORY	Spend %	Safety	Health	Labour practices	Fairness, inclusion and respect	Social value	Energy and CO <sub>2</sub> emissions	Environmental stewardship	Resource efficiency	Circular economy	Water	Legal and compliance	Economic growth
Packaging	2%	M	L	L	L	L	L	H	M	H	L	L	L
Chemicals	5%	M	M	M	L	L	H	M	H	L	L	L	L
IT & telecom	1%	L	L	L	L	L	M	L	H	H	L	H	L
Building components & manufacturing materials	6%	H	M	H	L	M	H	M	L	L	L	L	L
Energy	12%	M	H	L	L	L	H	H	H	L	L	L	L
General services	9%	L	M	M	M	H	M	L	L	L	L	L	M
Mobile equipment	6%	M	M	L	L	L	H	L	L	L	L	L	L
Production equipment	5%	H	M	M	L	L	H	L	L	L	L	L	L
Raw materials	17%	M	M	M	L	M	M	H	M	H	M	M	M
Logistics services	20%	H	H	L	L	L	H	M	L	L	L	H	M
Maintenance, production & contractor services	13%	H	H	L	M	M	L	L	L	L	L	H	L
Facilities management & estates	4%	M	M	H	H	M	M	M	M	M	M	M	L

#### Benefits

##### Reduced risk

By integrating sustainability requirements at the start of the tender stage, we are able to mitigate risks more effectively than after the event.

##### Innovation

Sustainability and innovation are increasingly linked and often lead to lower total cost of operational solutions.

##### Collaboration

Procurement creates a critical narrative that can demonstrate trust and deeper relationships with both customers and suppliers.



## Leading sustainability performance

### In this section

Our sustainability policies	<a href="#">↗</a> 65
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SASB	<a href="#">↗</a> 76
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DNV assurance statement	<a href="#">↗</a> 84
External benchmarks and recognitions	<a href="#">↗</a> 87

**In this image:** Our businesses are recognised as market-leaders in sustainable products and solutions. For example, EQIOM, part of our Europe Materials Division, became the first French cement manufacturer to certify a more environmentally friendly cement as part of the update of the NF standard. The NF label guarantees that the cement meets relevant composition and performance standards. The certification confirms EQIOM's position as market leader in sustainable solutions and their ability to support their customers and the wider construction industry in the decarbonisation journey.



"Sustainable business performance is increasingly being recognised as an essential driver of business value creation. We will continue our long history of strong, strategic performance and transparent communication of our progress across key sustainability areas."



**Dr Martyn Kenny,**  
VP Sustainable Business & Public Policy



# Our sustainability policies

## Commitment to sustainability in our business strategy

With our global presence and industry leadership positions, we are committed to ensuring that sustainability principles are embedded in all areas of our business strategy.

We are committed to maintaining the highest quality in all the things we do, from the products we produce, to progressing our culture of safety and to engaging with stakeholders. Our high standards are underpinned by our unwavering values, including People, Character, Performance and Innovation.

We set policies in key sustainability areas at Group level, covering Environment, Health & Safety and Social. Our management team works closely with our businesses in implementing these policies, reinforcing our guiding principles and ensuring that our purpose, vision and values are shared across the globe. Suspected or actual breaches of this Policy may be reported confidentially via the CRH Hotline.

An overview for each of these key sustainability policies can be seen here.



### Environmental Policy

The CRH Environmental Policy, applied across operating companies, is to

- Address proactively the challenges of climate change, reduce emissions and waste as well as optimise our use of energy, water, land and other resources
- Promote sustainable product and process innovation and new business opportunities
- Support and enhance biodiversity, ensuring responsible land use and biodiversity management
- Comply with or exceed all applicable environmental legislation and continually implement and improve our environmental management systems, always striving to meet or exceed industry best practice standards, monitoring and reporting performance
- Maintain open communications and ensure that our employees and contractors are aware of and adhere to their environmental responsibilities
- Maintain positive relationships with stakeholders through engagement and consultation, always striving to be good neighbours in every community in which we operate



### Environmental Policy

Roles and Responsibilities

Our Environmental Policy demonstrates our commitment to laws, regulations and policies concerning environmental issues and forms the foundation of continual environmental improvements to be made across our Group. Our Policy must be applied rigorously across all of our companies. There are clear lines of responsibility through operational management, the Group Chief Executive, the SESR Committee and ultimately the CRH Board.

All CRH employees must read and understand their obligations under this Policy and notify their manager or local environmental manager of potential or actual violations of environmental permits, regulations or policies. Managers at CRH are responsible for implementing the Environmental Policy, supported by a network of environmental liaison officers and managers.

Environmental performance is measured throughout our businesses and reviewed by senior management to ensure compliance with regulatory requirements. Environmental incidents deemed to be significant are reported to senior management, Group Health, Safety and Environment (HSE) Directors, and in certain instances, to Group Corporate Affairs, to ensure that risks are being appropriately managed. CRH carries out an annual compliance certification process, which requires the management of each operating company globally to confirm implementation and compliance with the CoBC and its underlying policies.



### Health & Safety Policy

All working in CRH must

- Comply, at a minimum, with all applicable health and safety legislation by developing a culture of health and safety excellence, continuously striving to meet or exceed industry best practice standards
- Ensure that our companies provide a healthy and safe workplace for all employees and contractors and take due care of stakeholders such as customers, visitors and communities at all our locations, monitoring and reporting performance to ensure Policy compliance
- Maintain open communications and require all employees and contractors to work in a safe manner as mandated
- Ensure that appropriate resources, training and supervision are provided
- Ensure that everyone working at CRH has the authority and responsibility to stop unsafe work on a no-reprisals basis



### Social Policy

All working in CRH must

- Comply at a minimum, with all applicable legislation and continuously improve our social stewardship, aiming at all times to meet or exceed industry best practice standards
- Support freedom of association and recognise the right to collective bargaining
- Apply the principle of equal opportunity, valuing diversity regardless of age, gender, disability, creed, ethnic origin or sexual orientation, while insisting that merit is the ultimate basis for recruitment and selection decisions
- Manage our businesses in a fair and equitable manner, meeting all our social responsibilities including working conditions, as both a direct and indirect employer
- Ensure that we deal responsibly with our suppliers and customers in accordance with our Code of Business Conduct, Supplier Code of Conduct and proper business practice
- Prohibit forced, compulsory and child labour in all forms including modern slavery



### Health & Safety Policy

Roles and Responsibilities

Health and safety has long been a strategic priority for CRH. Our Health and Safety Policy is complemented by our CRH Life Saving Rules and must be applied rigorously across all of our companies. There are clear lines of responsibility through operational management and the Global Safety Council, the Group Chief Executive, the SESR Committee and ultimately the CRH Board. The Global Safety Council provides support and oversight for the development and implementation of Group safety initiatives and best practice.

All CRH employees must read and understand their obligations under this Policy and complete health checks where applicable for their job function. In addition, employees must stop unsafe work on a no-reprisals basis. Managers at CRH are responsible for implementing the Health & Safety Policy, supported by a network of safety officers and managers.

Managers at CRH are required to report safety KPIs on a monthly basis. These are reviewed by the Global Leadership Team and ultimately the Board. In addition, operating companies are required to have an externally assured and/or robust internal health and safety management system in place to ensure a consistent approach to health and safety. CRH carries out an annual compliance certification process, which requires the management of each operating company globally to confirm implementation and compliance with the CoBC and its underlying policies.



### Social Policy

Roles and Responsibilities

Our Social Policy sets out our commitment and approach to doing business with integrity and respect for the social aspects of our operations. This includes meeting high standards of employee and contractor engagement, human and labour rights, customer and supplier relationships. Our Policy must be applied rigorously across all of our companies. There are clear lines of responsibility through operational management, the Group Chief Executive, the SESR Committee and ultimately the CRH Board.

All CRH employees must read and understand their obligations under this Policy and report relevant issues, such as instances of human rights violations or infringement of labour standards that may be taking place in any part of the business. Managers at CRH are responsible for implementing the Social Policy, supported by a network of HR managers and regional and Group specialists.

The Social Policy is verified through the annual CoBC certification, the annual social review and ongoing engagement at every level of the Group. CRH carries out an annual compliance certification process, which requires the management of each operating company globally to confirm implementation and compliance with the CoBC and its underlying policies.

# Reporting history, scope and basis

## History

We published our first report on our sustainability performance in October 2004. This Sustainability Report, published in March 2023, covers our activities during 2022 and KPIs cover the period January 2022 to December 2022. It is CRH's 20th annual report on sustainability and our 18th Sustainability Performance Report.

## Independent assurance

Our report has been independently assured every year since 2005 and is signed off by the SESR Committee, to which the Board has delegated primary responsibility for monitoring developments related to sustainability. You can find this year's detailed assurance statement on pages 84 to 85.

## Reporting standards

This report has been prepared in accordance with the GRI Reporting Standards. The GRI content index is provided from pages 77 to 83.

In addition, selected indicators have been prepared and reported in accordance with the Industry standard Construction Materials Sustainability Accounting Standard 2018, prepared by the Sustainability Accounting Standards Board (SASB), detailed on page 76.

The report is prepared in adherence with the AA1000 AccountAbility Principles and selected indicators are audited to a limited level of assurance in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information'. We report in line with the Financial

Stability Board's 'Task Force on Climate-related Financial Disclosures' (TCFD). Further information mapping our disclosures to the TCFD standards is included on pages 56 to 59 of the CRH 2022 Annual Report and Form 20-F.

## Reporting scope and basis for reporting

This report is based on data from 100% of our subsidiaries, covering the calendar year 2022. Our principal subsidiaries are listed on pages 290 to 293 of the CRH 2022 Annual Report and Form 20-F available on [crh.com](http://crh.com).

In common with other large companies, we also hold shares in joint ventures and associates; a list of principal joint ventures and associates is provided on page 293 of the CRH 2022 Annual Report and Form 20-F available on [crh.com](http://crh.com). CRH defines its organisational boundary on a financial control approach (entity driver based), and our Scope 1 and 2 CO<sub>2</sub>e emissions are reported on this basis. This report does not include data from associates and joint ventures.

Data has been collated from c.3,160 locations, spread across 29 countries. We have a robust data collection and management process in place, as assured by DNV for specific KPIs.

Our basis for reporting follows the GCCA definitions, GRI definitions and SASB definitions; these are publicly available at [www.gccassociation.org](http://www.gccassociation.org), [www.globalreporting.org](http://www.globalreporting.org) and [www.sasb.org](http://www.sasb.org) respectively. Metric units are used throughout, unless stated otherwise.

This Sustainability Report was reviewed and approved by the Safety, Environment and Social Responsibility (SESR) Committee of the CRH Board prior to publication.

We believe that the scope of this report addresses the full range of environmental, social and governance (ESG) aspects of our organisation. We have considered the GRI's Reporting Principles for Defining Report Content. A formal materiality assessment carried out with the assistance of an independent third party ensured we identified

and reported on the most material topics related to our business (see pages 12 to 13).

The boundary for all material aspects was considered to be within the organisation. We have considered the principles of stakeholder inclusiveness, sustainability context, materiality, completeness, balance, comparability, accuracy, timeliness, clarity and reliability and believe that this report meets these principles.

In general, administration buildings are not included in environmental data, as these are not material contributors - they would contribute to less than 0.01% of emissions, waste and resource use.

## Calculation methodologies

For reporting Scope 1 CO<sub>2</sub> cement emissions we use the GCCA 'Sustainability Guidelines for the monitoring and reporting of CO<sub>2</sub> from cement manufacturing' and the accompanying Excel spreadsheet, 'Cement CO<sub>2</sub> and Energy Protocol, Version 3.1, CO<sub>2</sub> Emissions and Energy Inventory'.

For reporting Scope 1 CO<sub>2</sub> Lime emissions we use the Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012 and 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

We calculate Scope 1 CO<sub>2</sub>e emissions from other activities using appropriate emission factors and in line with the World Resources Institute Greenhouse Gas Protocol (Revised Edition).

We calculate Scope 1 CO<sub>2</sub>e emissions reduced by biomass based on an equivalent energy replacement by other fuels used.

These methodologies consider CO<sub>2</sub>e emissions from biomass fuels as climate neutral.

We calculate Scope 2 CO<sub>2</sub>e emissions from electricity in line with the method of the World Resources Institute Greenhouse Gas Protocol Scope 2 Guidance (2015), using 'International Energy Agency (2022) Emissions Factors'

(published in 2022) and eGRID2020 'Summary Table' for emissions factors (published in 2022).

We calculate CO<sub>2</sub>e intensity as the sum of Scope 1 and Scope 2 emissions divided by revenue, expressed as kg CO<sub>2</sub> per USD revenue.

Following a materiality analysis on sources of Scope 3 CO<sub>2</sub>e emissions, CRH has reaffirmed that the following six categories are the most relevant for our business; Category 1: Purchased goods and services (including capital goods); Category 3: Fuel and energy related activities; Category 4: Upstream transportation and distribution; Category 5: Waste generated in operations; Category 7: Employee commuting; and Category 9: Downstream transportation and distribution. We calculate Scope 3 CO<sub>2</sub>e emissions estimations in line with the GHG Protocol's Scope 3 Standard and the GHG Protocol's Scope 3 Standard for cement companies, using the UK Government 'GHG conversion factors for company reporting 2022'. Where applicable, we apply Scope 3 emissions factors for alternative fuels based on actual Scope 1 and 2 data from CRH operations that process waste into fuels. Reported Scope 3 CO<sub>2</sub>e emissions include the most relevant emissions categories for CRH operating company activities.

All 2020 and 2021 numbers on page 20 are presented on an 'As Reported' basis consistent with CRH Sustainability Reports. In 2022, in order to better reflect our decisions on where we source power, we adopted marked based Scope 2 carbon emissions approach (location-based equivalent is 2.3 million tonnes). Note the 2021 and 2020 Scope 2 emissions have not been restated from location based.

For the purposes of this report, all references to carbon emissions (CO<sub>2</sub>) relate to CO<sub>2</sub> equivalent (CO<sub>2</sub>e), which include the six Greenhouse gases listed in the Kyoto Protocol: carbon dioxide (CO<sub>2</sub>); methane (CH<sub>4</sub>); nitrous oxide (N<sub>2</sub>O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF<sub>6</sub>). The only exception relates



to our cement specific net CO<sub>2</sub> emissions per tonnes of cementitious product metric, which is specifically CO<sub>2</sub> only in line with the GCCA guidelines referenced above.

For reporting of water, we used the GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing.

For reporting energy, we convert quantities of energy used to multiples of kWh using appropriate calorific values where necessary. Data on reduction of energy consumption is consolidated from data reported by our businesses.

For reporting co-processing fuels and raw materials, we use the GCCA 'Sustainability Guidelines for co-processing fuels and raw materials in cement manufacturing'.

Raw material substitution rate is expressed as the quantity of alternative raw materials and fuels used, expressed as a percentage of the total virgin and alternative materials and fuels used.

For reporting air emissions, we use the GCCA 'Sustainability Guidelines for the monitoring and reporting of emissions from cement manufacturing'. The greater portion of air emissions are based on measurements – refer to pages 70 to 71 for details of the portion of emissions from cement plants covered by continuous monitoring systems. Air emissions from certain facilities in the US are calculated using US EPA AP-42 factors.

For reporting the number of Locations in Physical Climate Risk (drought severity) we identify the number of locations (prior year location geocoordinate data) which are at "High" risk of drought severity expressed as a percentage of the total number of locations using the World Resource Institute's (WRI) Aqueduct Risk Atlas.

For reporting Recycled Asphalt Pavement (RAP) in US asphalt we express the quantity of RAP and Recycled Asphalt Shingles (RAS) as a percentage of asphalt production across the materials operations in the United States.

The reported number of stakeholder engagement events are inclusive of a CRH defined list of external engagements with open days, school/university visits/tours, plant/site tours, local community/stakeholder meetings, meetings with local political officials, lecturing/educational workshops, employee family days, job fair events/career days.

For reporting local impacts, we use the GCCA 'Sustainability Guidelines for Quarry Rehabilitation and Biodiversity Management'.

For reporting the number of extractive locations with restoration plans expressed as a percentage of the total number of extractive locations. An extractive location is a location owned or leased by the company at which extraction of natural resources takes place by the company. A restoration plan (also known as an after-use plan) is defined as a plan that addresses the lifecycle of rehabilitation and mitigation of an extractive location, typically beginning with defining the context, setting objectives, planning finances, developing and implementing the actual plan, all the way to monitoring and post-closure management.

For reporting the number of extractive locations noted for Biodiversity the term "noted for biodiversity" is intended to be a broad term to include all locations where biodiversity is being protected or enhanced. This is an internal CRH definition. Locations may be considered to be noted for biodiversity where: The location is within a designated area, protected for biodiversity; Protected species or habitats are present; The location contains habitats where local or native species, even if not protected, have been observed.

For reporting of safety indicators, we use the GCCA 'Sustainability Guidelines for the monitoring and reporting of safety in cement and concrete manufacturing.

For reporting of social indicators, we use full-time equivalent (FTE) for employee numbers.

## Intended audiences

The key audiences for this report are our stakeholders including employees, neighbours and local communities, current and potential investors, sustainability rating agencies, customers and suppliers, government and regulatory bodies, academia and the scientific community, media, Non-Governmental Organisations (NGOs) and activist groups.

We believe that this report provides a reasonable and balanced representation of the Group's material sustainability areas of impact and opportunity. It is designed to enable stakeholders to assess the Group's performance across these areas.

## Reporting challenges

Our reports are written for our stakeholders, but with global and local stakeholders in 29 countries, expectations and needs vary significantly. In addition, our diversified business means that the internal and external context for sustainability is complex. To meet these challenges, we focus on stakeholder inclusiveness, which, together with our materiality and risk management processes, helps to ensure we cover key areas in a complete and balanced way in our sustainability reporting.

Sustainability reporting is evolving with revisions to reporting standards and changing best practices. During 2022, we participated in consultation processes in relation to transparency and reporting on sustainability. Looking to the future, we aim to continuously improve our reporting and communications on sustainability so that all stakeholders are aware of our value adding approach.

# Data summary

We are committed to reporting on the breadth of our sustainability performance. The following non-financial data tables cover subsidiaries on a 100% basis, unless otherwise stated. GCCA KPIs are included where relevant. For details on external assurance conducted by DNV please see pages 84 to 86.

## Environment

Energy	2022	2021	2020
Total energy consumption (TWh)	54.5	57.0	54.8
Total energy consumption (Pj)	196.3	205.0	197.2
Energy use from businesses with energy reduction targets (%)	99%	99%	99%
Energy saved (TWh)	0.47	0.17	0.22
Renewable electricity purchased by CRH (TWh)	1.65	1.67	1.83
Electrical energy from renewable resources (%)	25%	25%	25%
Increase in renewable electricity over the last 5 years (%)	50%	102%	138%
Europe locations certified to ISO 50001	696	775	800
Europe materials activity locations certified to ISO 50001 (%)	56%	69%	67%
Energy conversion costs (\$)	2,106m	1,513m	1,241m
Energy conversion costs (% of total cost of sales)	9.6%	7.8%	7.2%
<b>Energy use by source (%)</b>			
Alternative fossil and mixed fuels	24%	22%	23%
Natural gas and LPG	23%	23%	24%
Coal	21%	24%	21%
Electricity	12%	13%	13%
Petcoke	13%	12%	13%
Diesel and oils	7%	6%	6%
Other	<1%	<1%	<1%
<b>Energy use by activity (%)</b>			
Cement	70%	71%	72%
Materials	19%	18%	17%
Lime	7%	7%	7%
Concrete	4%	3%	3%
Building products	<1%	1%	1%

Energy (GCCA KPIs - cement plants only)	2022	2021	2020
Specific heat consumption for clinker production (kcal per kg of clinker)	897	904	901
Alternative fuel rate (kiln fuels) (%)	36.3%	33.0%	34.3%
Biomass fuel rate (kiln fuels) (%)	11.8%	8.9%	11.3%

CO <sub>2</sub> emissions	2022	2021	2020
Total CO <sub>2</sub> e emissions direct, Scope 1 (tonnes)	31.2m	33.4m	32.4m
Total CO <sub>2</sub> e emissions indirect, Scope 2 (Location) (tonnes)	2.3m	2.6m	2.6m
Total CO <sub>2</sub> e emissions indirect, Scope 2 (Market) (tonnes)	2.4m	2.9m	3.0m
Total CO <sub>2</sub> e emissions indirect, Scope 3 (tonnes)	12.9m	12.0m	10.9m
Total CO <sub>2</sub> e emissions indirect, Scope 3 Upstream (tonnes) <sup>1</sup>	12.4m	11.7m	10.6m
Upstream purchased goods (incl. transport) (tonnes)	8.5m	7.5m	6.9m
Upstream fuel and energy related activities (incl. transport) (tonnes)	1.9m	1.8m	1.5m
Upstream transportation and distribution (tonnes)	1.7m	2.1m	1.9m
Upstream waste generated in operations (tonnes)	0.1m	0.1m	0.1m
Upstream employee commuting (tonnes)	0.2m	0.2m	0.2m
Total CO <sub>2</sub> e emissions indirect, Scope 3 Downstream (tonnes)	0.5m	0.3m	0.3m
Downstream transportation and distribution (tonnes)	0.5m	0.3m	0.3m
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (Location) (tonnes)	33.5m	36.0m	35.0m
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (Market) (tonnes)	33.6m	36.3m	35.4m
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (Location) + 3 (tonnes)	46.4m	48.0m	45.9m
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (Market) + 3 (tonnes)	46.5m	48.3m	46.3m
<b>Scope 1 emissions by source (%)</b>			
Decarbonation	60%	60%	60%
Coal	13%	14%	12%
Alternative fossil and mixed fuels	8%	8%	8%
Natural gas and LPG	8%	7%	8%
Petcoke	7%	7%	8%
Diesel and oils	3%	3%	3%
Transport	1%	1%	1%
<b>Scope 1 emissions by activity (%)</b>			
Cement	81%	82%	82%
Lime	11%	10%	10%
Materials	6%	6%	6%
Concrete	1%	1%	1%
Building Products	<1%	<1%	<1%
Transport	1%	1%	1%
CO <sub>2</sub> e intensity (kg/\$ revenue)	1.0	1.2	1.3

<sup>1</sup> Estimates for other Scope 3 emissions in 2022 are: upstream capital goods 0.6m tonnes, downstream processing of sold goods 0.4m tonnes and downstream end of life treatment of sold products 0.4m tonnes. The information is not collected locally for each operation, however it is monitored at a central level. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.

CO <sub>2</sub> emissions (GCCA KPIs - cement plants only)	2022	2021	2020
Total direct CO <sub>2</sub> emissions - gross (tonnes)	25.2m	27.3m	26.5m
Total direct CO <sub>2</sub> emissions - net (tonnes)	22.9m	24.9m	24.2m
Specific CO <sub>2</sub> emissions - gross (kg/tonne of cementitious product)	624	643	643
Specific CO <sub>2</sub> emissions - net (kg/tonne of cementitious product)	566	586	586

Alternative fuels and materials	2022	2021	2020
Total alternative materials and fuels (tonnes)	42.4m	39.5m	36.5m
Total alternative materials (tonnes)	40.1m	37.4m	34.4m
Total alternative materials			
Internal by-products (tonnes)	2.8m	3.1m	2.6m
RAP and shingles (tonnes)	11.8m	10.6m	10.5m
C&D waste (tonnes)	12.1m	10.0m	10.5m
Other reused materials (tonnes)	13.4m	13.7m	10.8m
Alternative materials used in cement plants (tonnes)	8.4m	8.0m	8.5m
Alternative materials in cement plants (%)			
GGBS	41%	44%	49%
Industrial by-products	27%	23%	23%
Fly-ash	18%	17%	16%
Soils	10%	12%	8%
Internal by-products	4%	4%	4%
Total alternative fuels (tonnes)	2.3m	2.1m	2.1m
Alternative fuels used in cement plants (tonnes)	2.2m	2.1m	2.1m
Alternative fuels used in cement plants - European Union (%)	53%	50%	51%
Alternative fuels used in cement plants (%)			
Alternative fossil and mixed fuels	66%	71%	65%
Biomass fuels (incl. biomass cont. from alternative mixed fuels)	34%	29%	35%

Transport	2022	2021	2020
Companies with initiatives to optimise transport use (%)	70%	71%	67%
Produced goods delivered with initiatives to optimise transport use (%)	94%	94%	94%
Transport of products by own trucks (%)	24%	25%	24%
Fuel used by our company trucks (litres)	155m	157m	157m

Air emissions	2022	2021	2020
Total particulates emissions (dust) (tonnes)	3.7k	3.9k	4.7k
Total NO <sub>x</sub> emissions (tonnes)	38.3k	42.9k	42.6k
Total SO <sub>x</sub> emissions (tonnes)	9.5k	16.3k	15.9k
Total Particulates emissions (dust) by activity (%)			
Cement	47%	53%	48%
Materials	40%	41%	37%
Lime	7%	5%	5%
Concrete	6%	1%	10%
Building products	<1%	<1%	<1%
Total NO <sub>x</sub> emissions by activity (%)			
Cement	92%	93%	94%
Materials	5%	4%	4%
Lime	3%	3%	2%
Concrete	<1%	<1%	<1%
Building products	<1%	<1%	<1%
Total SO <sub>x</sub> emissions by activity (%)			
Cement	85%	93%	93%
Materials	9%	4%	4%
Lime	4%	3%	3%
Concrete	2%	<1%	<1%
Building products	<1%	<1%	<1%

Emissions (GCCA KPIs - cement plants only)	2022	2021	2020
Overall coverage rate (%)	94.5%	85.0%	83.9%
Coverage rate continuous measurement (%)	99.1%	98.7%	98.8%
Particulates (Total particulate matters emissions)			
Specific (g per tonne of clinker)	30	34	31
Absolute (tonnes)	915	1,093	981
Coverage rate (%)	99.1%	98.7%	98.8%
NO <sub>x</sub> (Sum of nitrogen monoxide and nitrogen dioxide, expressed as nitrogen dioxide)			
Specific (g per tonne of clinker)	1,116	1,140	1,221
Absolute (tonnes)	34,186	37,041	39,027
Coverage rate (%)	99.1%	98.7%	98.8%



Emissions (GCCA KPIs - cement plants only) continued	2022	2021	2020
<b>SO<sub>x</sub></b>			
Specific (g per tonne of clinker)	227	394	429
Absolute (tonnes)	6,967	12,806	13,722
Coverage rate (%)	99.1%	98.7%	98.8%
<b>VOC/THC (Volatile Organic Compounds or Total Hydrocarbons including methane and ethane expressed as carbon (C))</b>			
Specific (g per tonne of clinker)	49	39	46
Absolute (tonnes)	1,440	1,214	1,367
Coverage rate (%)	96.2%	95.3%	93.9%
<b>PCDD/F (sum of 17 congeners of NATO scheme expressed as I-TEQ)</b>			
Specific (ng per tonne of clinker)	22	21	25
Absolute (mg)	688	693	763
Coverage rate (%)	100.0%	100.0%	94.9%
<b>Hg (Mercury and its compounds expressed as mercury (Hg))</b>			
Specific (mg per tonne of clinker)	15	18	21
Absolute (kg)	471	579	657
Coverage rate (%)	100.0%	100.0%	100.0%
<b>HM1 (Sum of cadmium and thallium and their compounds expressed as cadmium (Cd) and thallium (Tl))</b>			
Specific (mg per tonne of clinker)	11	14	12
Absolute (kg)	335	450	342
Coverage rate (%)	100.0%	100.0%	92.1%
<b>HM2 (sum of antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel and vanadium and their compounds expressed as antimony (Sb), arsenic (As), lead (Pb), chromium (Cr), cobalt (Co), copper (Cu), manganese (Mn), nickel (Ni) and vanadium (Va))</b>			
Specific (mg per tonne of clinker)	356	261	223
Absolute (kg)	10,116	7,882	5,654
Coverage rate (%)	92.7%	93.1%	79.4%

Water	2022	2021	2020
Total process water (m <sup>3</sup> )	254.5m	266.2m	266.2m
Total recycled water (m <sup>3</sup> )	139.8m	149.9m	156.2m
Total water withdrawal (m <sup>3</sup> )	114.7m	116.3m	109.9m
Water intake reduction (%)	55%	56%	59%
Locations that recycled water	880	910	903

Water continued	2022	2021	2020
<b>Total water withdrawal by source (%)</b>			
Groundwater	32%	31%	33%
Surface water	25%	22%	24%
Quarry water	24%	21%	21%
Rainwater	12%	15%	13%
Utility water	7%	11%	9%
<b>Total water withdrawal by activity (%)</b>			
Materials	74%	75%	72%
Cement	23%	22%	22%
Concrete	2%	2%	5%
Lime	1%	1%	1%
Building products	<1%	<1%	<1%
Total water consumption <sup>1</sup> (m <sup>3</sup> )	81.9m	86.8m	79.4m
Locations in Physical Climate Risk - drought severity (%)	0.3%	0.4%	0.2%
Companies which have water management plans (%)	81%	80%	75%

Water (GCCA KPIs - cement plants only)	2022	2021	2020
<b>Total water withdrawal by source (m<sup>3</sup>)</b>	24.5m	24.4m	23.4m
Groundwater	8.5m	8.1m	8.4m
Surface water	7.0m	6.9m	6.7m
Quarry water	2.6m	2.0m	1.9m
Rainwater	5.6m	5.8m	5.7m
Utility water	0.8m	1.6m	0.7m
Total water consumption	11.6m	10.5m	9.8m
Amount of Water Consumption per unit of cementitious product (litres/t)	289	247	232
Quarry water (not used) discharge (m <sup>3</sup> )	4.4m	n/a	n/a
<b>Total water discharge by destination (m<sup>3</sup>)</b>	12.8m	13.9m	13.6m
Surface water	12.7m	13.5m	13.3m
Other	0.1m	0.3m	0.2m
Public sewer	60k	120k	98k

<sup>1</sup> All water consumption is from freshwater sources.

Effluents and waste	2022	2021	2020
Total water discharge (m <sup>3</sup> )	32.8m	29.5m	30.6m
Total water discharge by quality and destination (%)			
Surface water	88%	83%	79%
Public sewer	1%	3%	9%
Other	11%	14%	12%
Total waste generated (tonnes)	2.5m	2.1m	2.0m
Waste by type and disposal method (tonnes)			
Inert waste	1,865k	1,668k	1,381k
Non-hazardous waste	614k	395k	603k
Hazardous waste	36k	40k	49k
Waste externally recycled (%)	90%	86%	78%
Waste recycled (%)			
Inert	95%	94%	85%
Non-hazardous	76%	56%	64%
Hazardous	74%	74%	38%
Waste by activity (%)			
Materials	53%	58%	56%
Concrete	39%	29%	31%
Building products	1%	5%	6%
Cement	6%	7%	7%
Lime	1%	<1%	<1%
By-products diverted from waste streams (tonnes)	2.8m	3.1m	2.6m

Local impacts	2022	2021	2020
Locations noted for biodiversity	578	507	527
Locations within, containing or adjacent to sensitive areas for biodiversity	412	367	367
Relevant locations in sensitive areas with BMPs in place (%)	92%	90%	91%
Quarry and pit area reinstated (hectares)	556	728	527
Locations preserving cultural heritage	73	74	73
Quarries where rehabilitation plan is implemented (%)	99.5%	99.6%	99.4%
Number of active quarries within, containing or adjacent to areas designated for their high biodiversity value (cement)	33	32	32
Sites with community engagement plans in place (cement only) (%)	92%	96%	88%

Local impacts (GCCA KPIs - (cement plants only))	2022	2021	2020
Percentage (%) of quarries where rehabilitation plan is implemented	99%	100%	93%
Percentage (%) of quarries with high biodiversity value where biodiversity management plan is implemented	76%	78%	84%

Environmental management	2022	2021	2020
Locations certified to ISO 14001 EMS	1,032	878	870
Clinker plants ISO 14001 certified (%)	95%	95%	91%
Total external audits	1,489	1,299	1,077
Total internal audits	2,401	2,474	2,041
Fines paid to regulatory authorities (\$)	\$268k	\$32k	\$390k
Operational expenditure in environmental protection (\$)	\$149m	\$137m	\$115m
Capital expenditure in environmental protection (\$)	\$97m	\$70m	\$58m
Investment in environmental protection (%)			
Air quality control	29%	33%	26%
Licensing and monitoring	19%	21%	28%
Waste management	15%	17%	17%
Biodiversity and land management	13%	12%	12%
Alternative materials and fuel management	10%	3%	2%
Water and effluent management	9%	9%	10%
Energy monitoring	3%	2%	2%
Other	2%	3%	3%

Materials and products	2022	2021	2020
Materials used by weight or volume (total) (tonnes)			
Virgin raw materials	391m	402m	371m
Associated process materials	308k	2m	7m
Semi-manufactured components	50m	49m	46m
Packaging materials	217k	179k	374k
Substituted virgin materials (%)	9%	9%	8%
Revenue from products and building solutions with enhanced sustainability attributes (%)	47%	47% <sup>1</sup>	46%
Revenue from products that can be used in certified sustainable building schemes (%)	31%	28%	25%
Companies who carried out formal customer surveys (%)	54%	55%	52%
Completed customer surveys indicating above average levels of satisfaction (%)	89%	91%	93%

Materials and products (GCCA KPIs - cement plants only)	2022	2021	2020
Alternative Raw Materials rate (% ARM)	13.1%	11.9%	13.0%
Clinker/cement (equivalent) factor	77.3	78.4	77.5

<sup>1</sup> Reported number in 2021 as 46% and restated to reflect impact of discontinued operations.

## Safety

Safety management	2022	2021	2020
Investment in health and safety over last 5 years (\$)	\$320m	\$300m	\$260m
Operations covered by safety management systems (%)	100%	100%	100%
Locations audited for safety (%)	95%	92%	86%
Locations in Europe certified to OHSAS 18001/ISO 45001 (%)	59%	54%	54%
Accidents investigated (%)	100%	100%	100%
Companies that held safety meetings (%)	100%	100%	100%
Companies that recorded near misses (%)	100%	100%	100%
<b>Managing employee safety</b>			
Companies that have employee safety induction (%)	100%	100%	100%
Companies with employee disciplinary measures in place (%)	100%	100%	100%
Companies with risk assessments in place (%)	100%	100%	100%
<b>Managing contractor safety</b>			
Number of contractor transport safety checks	153,100	194,300	158,600
Number of contractor disciplinary actions recorded and addressed	2,235 <sup>1</sup>	1,757	1,416
Companies that have contractor site induction (%)	100%	100%	100%
<b>Managing accidents</b>			
Group fatalities, directly employed	1	1	1
Fatality rate directly employed	0.13	0.13	0.13
Group fatalities, indirectly employed	4	1	2
Group fatalities, involving onsite 3 <sup>rd</sup> parties	0	0	0
Group lost time injuries (LTI) rate per 1 million man hours (Frequency Rate) (number)	1.2	1.2	1.4
Group lost time injuries (LTI) rate per 1 million man hours (Severity Rate) (number)	35	29	39
Zero accident locations (%)	94%	94%	94%
Average annual accident decrease over last 10 years (Frequency Rate) (%)	7%	8%	8%
Average annual accident decrease over last 10 years (Severity Rate) (%)	5%	7%	6%
<b>Accidents by cause (%)</b>			
Slips, trips, falls on the same level	26%	31%	23%
Falling objects or moving objects	21%	17%	22%
Other or multiple causes	13%	15%	13%
Falls from height	12%	9%	9%
Caught in or by fixed machinery	11%	6%	10%

Managing accidents continued	2022	2021	2020
Burns by heat or chemicals	6%	3%	4%
Lifting, overloading or overexertion	4%	8%	10%
Caught in or by vehicles, mobile plant	4%	8%	5%
Power tools or electrical equipment	3%	3%	4%
<b>Accidents by injury type (%)</b>			
Arms, hands	34%	36%	32%
Legs, feet	34%	30%	34%
Upper body, shoulder	9%	6%	8%
Back	7%	9%	9%
Head, neck	6%	5%	6%
Eye	5%	4%	3%
Multiple body parts	5%	3%	4%
Unspecified or unknown	0%	7%	4%

Safety (GCCA KPIs - cement plants only)	2022	2021	2020
Number of fatalities, directly employed	0	0	0
Fatality rate, directly employed	0	0	0
Number of fatalities, indirectly employed	1	0	2
Number of fatalities, involving onsite 3 <sup>rd</sup> parties	0	0	0
Number of lost time injuries, directly employed	26	21	36
LTI frequency rate, directly employed	1.6	1.3	2.1
LTI severity rate, directly employed	69	42	59
Number of lost time injuries, indirectly employed	12	9	25
LTI frequency rate, indirectly employed	0.5	0.4	1.2

Safety culture	2022	2021	2020
Employees involved in formal joint management/worker safety dialogue (%)	79%	73%	73%
Health and safety training completed by employees (hours)	1.5m	1.5m	1.4m
Health and safety training completed per employee (hours)	20.2	20.0	19.2

Employee health	2022	2021	2020
Companies that had health and wellbeing programmes (%)	99%	99%	98%
Companies offering assistance with employee health insurance (%)	92%	92%	91%

<sup>1</sup> Rounded number provided within the report text; the exact number is provided in the table above.



## Social

Our people	2022	2021	2020
Total employees	c. 75,800	c. 77,400	c. 77,100
Employees employed locally (%)	>95%	95%	95%
Average number of employees at each location	24	24	25
<b>Employees by category (%)</b>			
Clerical/admin	19%	17%	17%
Managerial	13%	13%	13%
Operations	68%	70%	70%
<b>Employees by category (% women)</b>			
Clerical/admin	47%	46%	45%
Managerial	16%	16%	16%
Operations	7%	7%	7%
<b>Employees by country (%)</b>			
United States	51%	53%	50%
Other	20%	18%	18%
United Kingdom	12%	11%	12%
Canada	5%	6%	7%
France	3%	3%	4%
Germany	3%	3%	3%
Ireland	3%	3%	3%
Poland	3%	3%	3%
<b>Employees geographical breakdown (%)</b>			
National (country of incorporation - Ireland)	3%	3%	3%
Europe (excl. National part)	38%	36%	37%
North America	57%	59%	57%
South America	0%	0%	<1%
Asia/Pacific	2%	2%	2%
Middle East/Africa	0%	0%	0%
<b>Employees length of service (%)</b>			
<1 year	19%	17%	11%
1-4 years	28%	27%	31%
5-9 years	18%	18%	18%
10-14 years	9%	10%	11%
15-19 years	9%	10%	10%
20-24 years	7%	8%	8%
>25 years	10%	10%	11%

Our people continued	2022	2021	2020
<b>Employees by age (%)</b>			
19 or younger	1%	1%	<1%
20-24	5%	5%	5%
25-29	9%	9%	9%
30-39	22%	22%	22%
40-49	24%	24%	25%
50-59	26%	26%	27%
60 or older	13%	13%	12%
<b>New employees (%)</b>			
Men	84%	85%	87%
Women	16%	15%	13%
<b>New employees by region (%)</b>			
Americas	73%	75%	78%
Europe	26%	24%	21%
Asia	1%	1%	1%
<b>Employees turnover</b>			
Employee turnover rate %	26%	24%	23%
Men	87%	88%	87%
Women	13%	12%	13%
<b>Inclusion and diversity</b>			
Board Directors (% women)	33%	33%	42%
Senior managers (% women)	15%	14%	13%
Senior leadership (% women)	19%	22%	16%
Managerial employees in revenue generating positions (% women)	13%	12%	11%
Men employed (%)	84%	85%	86%
Women employed (%)	16%	15%	14%
Graduates recruited into STEM-related positions (% women)	35%	32%	30%
Number of employees with disabilities	1,344	1,168	1,132
Operating companies employing people with disabilities (%)	54%	51%	50%

Training and professional development	2022	2021	2020
Total training hours	2.3m	2.4m	2.1m
Employees who received some training in the reporting year (%)	97%	97%	96%
<b>Employee training by category (% of total training hours)</b>			
Clerical/admin	13%	12%	13%
Managerial	14%	13%	12%
Operations	73%	75%	75%
<b>Type of training received (hours per employee)</b>			
Environmental	1.2	0.8	0.6
Human rights	0.8	0.9	0.9
Management and other education	7.0	5.3	3.8
Quality, technical and IT	1.9	4.0	4.0
Safety	20.2	20.0	19.2
<b>Employees Receiving COBC and ACT training</b>			
Relevant employees trained in Code of Business Conduct (COBC)	c. 31,500	c. 32,600	c. 32,100
Employees receiving Advanced Compliance Training (ACT)	c. 10,700	c. 8,500	c. 9,000
<b>Employee professional development</b>			
Operating companies that offered career development opportunities or advice to employees (%)	87%	86%	86%
<b>Employees receiving career development (%)</b>			
Clerical/admin	51%	47%	40%
Managerial	65%	67%	59%
Operations	48%	47%	42%

Trade union membership and collective bargaining	2022	2021	2020
Overall membership (%)	20%	20%	22%
Lost days due to industrial action (%)	0.10%	0.09%	0.00%
Lost days due to industrial action	18,076	17,042	109
Number of industrial disputes across operating companies	10	7	7
Employees with wages negotiated individually (%)	40%	39%	36%
Employees with wages negotiated with unions (%)	28%	29%	31%
Employees with wages negotiated through national deals (%)	4%	3%	3%
Wage reviews carried out on individual basis or through trade unions or national deals (%)	72%	71%	70%

Employee engagement (%)	2022	2021	2020
Employees participating in regular employee briefings	90%	89%	87%
Employees surveyed formally for employee engagement and satisfaction	55%	54%	48%
Employee engagement scoring in the "engaged" or higher categories	100%	100%	100%

Local communities	2022	2021	2020
Donations (\$)	\$7.2m	\$7.1m	\$8.3m
Number of stakeholder engagement events (approx.)	1,500	1,100	810
Number of educational interactions over a two year period	1,880	930	n/a
Number of people participating over a two year period	73,900	28,400	n/a

# SASB

SASB is an independent, private sector standards-setting organisation, dedicated to enhancing the efficiency of the capital markets, by fostering high-quality disclosure of material sustainability information that meets investor needs. The table below cross-references the SASB accounting metrics with where that information can be found in the CRH Sustainability Report 2022 (labelled pg. [1](#)).

Topic	Accounting metric	Units	SASB Code	Reference
<b>Greenhouse gas emissions</b>				
	Gross global Scope 1 emissions	Metric tonnes (t) CO <sub>2</sub> -e	EM-CM-110a.1	pg. <a href="#">20</a> , pg. <a href="#">67</a> and pg. <a href="#">69</a> . CO <sub>2</sub> is the only material GHG.
	Percentage covered under emissions-limiting regulations	Percentage (%)	EM-CM-110a.1	pg. <a href="#">22</a> and pg. <a href="#">67</a> .
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	n/a	EM-CM-110a.2	pg. <a href="#">17-18</a> and pg. <a href="#">20-23</a> .
<b>Air quality</b>				
	1. NO <sub>x</sub> (excluding N <sub>2</sub> O)	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">70-71</a> .
	2. SO <sub>x</sub>	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">70-71</a> .
	3. Particulate matter (PM10)	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">70-71</a> . Total Particulates as reported accounts for all particulate matter as measured; a portion of this would include PM10 (i.e. particulate matter with particles having diameters less than 10 micrometers in size).
	4. Dioxins/furans	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">71</a> . Cement is the only material activity reporting dioxins/furans.
	5. Volatile organic compounds (VOCs)	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">71</a> . We disclose VOCs in line with GCCA requirements.
	6. Polycyclic aromatic hydrocarbons (PAHs)	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">71</a> .
	7. Heavy metals	Metric tonnes (t)	EM-CM-120a.1	pg. <a href="#">71</a> . Cement is the only material activity reporting Hg and HM1.
<b>Energy management</b>				
	1. Total energy consumed	Gigajoules (GJ)	EM-CM-130a.1	pg. <a href="#">21</a> and pg. <a href="#">79</a> .
	2. Percentage grid electricity	Percentage (%)	EM-CM-130a.1	pg. <a href="#">69</a> .
	3. Percentage alternative	Percentage (%)	EM-CM-130a.1	pg. <a href="#">69</a> .
	4. Percentage renewable	Percentage (%)	EM-CM-130a.1	pg. <a href="#">21</a> and pg. <a href="#">69</a> .
<b>Water management</b>				
	1. Total fresh water withdrawn	Thousand cubic metres (m <sup>3</sup> )	EM-CM-140a.1	pg. <a href="#">34</a> and pg. <a href="#">71</a> . All water withdrawal is from freshwater sources and reported in million cubic metres.
	2. Percentage recycled	Percentage (%)	EM-CM-140a.1	Information on the number of sites that recycle water and percentage of water intake reduced can be found on pg. <a href="#">34</a> and pg. <a href="#">76</a> .
	3. Percentage in regions with "High" or "Extremely High" baseline water stress	Percentage (%)	EM-CM-140a.1	We have conducted water stress assessments in accordance with WRI's Aqueduct Risk Atlas Tool and determined that <1% of active locations are in high or extremely high-risk areas of water stress, and that Group activities do not highly impact on water, and locations generally do not operate in water-stressed areas. See pg. <a href="#">34</a> for more information.
<b>Waste management</b>				
	Amount of waste generated	Metric tonnes (t)	EM-CM-150a.1	pg. <a href="#">27</a> , pg. <a href="#">29</a> and pg. <a href="#">72</a> .
	Percentage hazardous	Percentage (%)	EM-CM-150a.1	pg. <a href="#">27</a> and pg. <a href="#">72</a> .
	Percentage recycled	Percentage (%)	EM-CM-150a.1	pg. <a href="#">27</a> .
<b>Biodiversity impacts</b>				
	Description of environmental management policies and practices for active sites	n/a	EM-CM-160a.1	pg. <a href="#">37</a> and pg. <a href="#">65</a> .
	Terrestrial acreage disturbed	Acres (ac)	EM-CM-160a.2	Information on restoration planning processes and relevant targets can be found on pg. <a href="#">37</a> , and pg. <a href="#">40</a> .
	Percentage of impacted area restored	Percentage (%)	EM-CM-160a.2	Information on restoration planning processes and relevant targets can be found on pg. <a href="#">37</a> , and pg. <a href="#">40</a> .
<b>Workforce health and safety</b>				
	1. Total recordable incident rate (TRIR)	Rate	EM-CM-320a.1	pg. <a href="#">73</a> . We disclose our safety KPIs in line with GCCA requirements.
	2. Near miss frequency rate (NMFR) for (a) full-time employees	Rate	EM-CM-320a.1	pg. <a href="#">73</a> . We disclose our safety KPIs in line with GCCA requirements.
	2. Near miss frequency rate (NMFR) for (b) contract employees	Rate	EM-CM-320a.1	pg. <a href="#">73</a> . We disclose our safety KPIs in line with GCCA requirements.
	Number of reported cases of silicosis	Rate	EM-CM-320a.2	Information on the management of occupational health can be found on pg. <a href="#">47</a> .
<b>Product innovation</b>				
	Percentage of products that qualify for credits in sustainable building design and construction certifications	Percentage (%) by annual sales revenue	EM-CM-410a.1	pg. <a href="#">27</a> .
	Total addressable market for products that reduce energy, water, and/or material impacts during usage and/or production	Reporting currency	EM-CM-410a.2	pg. <a href="#">18</a> , pg. <a href="#">21-23</a> , pg. <a href="#">26-27</a> and pg. <a href="#">29</a> .
	Share of market for products that reduce energy, water, and/or material impacts during usage and/or production	Percentage (%)	EM-CM-410a.2	pg. <a href="#">18</a> , pg. <a href="#">21-23</a> , pg. <a href="#">26-27</a> and pg. <a href="#">29</a> .
<b>Pricing integrity and transparency</b>				
	Total amount of monetary losses as a result of legal proceedings associated with cartel activities, price fixing, and anti-trust activities	Reporting currency	EM-CM-520a.1	In 2022, CRH had zero monetary losses as a result of legal proceedings associated with these activities, per SASB's guidance.



# GRI index

Where relevant, GRI Standards reference indicator codes are shown with either the relevant figure or the page number where the information may be found. Pages within the Sustainability Report are labelled ["pg. 67"] while "AR." refers to the page number within the CRH 2022 Annual Report and Form 20-F, "GA." refers to the CRH 2022 Governance Appendix and "TS" refers to the CRH Tax Strategy. GRI covers all Group subsidiary companies, on a 100% basis. For details on external assurance conducted by DNV please see pages 84-86.

Statement of use	CRH plc has reported in accordance with the GRI Standards for the period 1 January to 31 December 2022.		
GRI 1 used	GRI 1: Foundation 2021		
<b>GRI 2 General Disclosures</b>			
GRI Code	Description	2022 Reference	Comment
<b>The organisation and its reporting practices</b>			
2-1	Organisational Details	pg. 77; AR pg. 181, 275. See comment.	CRH is a plc, incorporated in Ireland. The Group's worldwide headquarters is located in Dublin, Ireland.
2-2	Entities included in the organisation's sustainability reporting	pg. 67; AR pg. 290-293	
2-3	Reporting period, frequency and contact point	pg. 67, 88. See comment.	Reporting period: 1 January to 31 December. Point of contact: Telephone: +353 1 404 1000. E-mail: mail@crh.com
2-4	Restatements of information	pg. 77. See comment.	No restatements.
2-5	External assurance	pg. 67, 84-85	
<b>Activities and workers</b>			
2-6	Activities, value chain and other business relationships	pg. 05, 14, 18, 30, 62-63; AR pg. 2-3, 68-79, 290-295	
2-7	Employees	pg. 05, 49, 52, 74-75. See comment.	Note that 53% of employees are employed on permanent contracts, 2% on fixed term contracts, 1% on temporary contracts and 44% on another basis. As only 1% of staff are on temporary contracts, it is estimated that the standard gender breakdown - 16% women - applies to both permanent and temporary staff. Overall, approximately 2% of employees are part-time. It is estimated that 47% of part-time staff are women, while 16% of full-time staff are women. Note that the data in the tables on pages 74 and 75 includes both permanent and temporary employees. CRH does not collect contract data by gender. Employee numbers are reported as FTE as outlined in the Annual Report however the analysis data is provided by head count as on the 31 December 2022. Changes in employee number have occurred due to divestments and acquisitions.
2-8	Workers who are not employees	pg. 45, 74-75	Information incomplete. This information is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
<b>Governance</b>			
2-9	Governance structure and composition	pg. 59; AR pg. 82-85, 89-90, 100	
2-10	Nomination and selection of the highest governance body	pg. 59; AR pg. 88-90, 98-102	
2-11	Chair of the highest governance body	pg. 59; AR pg. 82, 88-90	
2-12	Role of the highest governance body in overseeing the management of impacts	pg. 23, 37, 44, 49, 52, 59, 65-66; AR pg. 87, 88-90, 92, 94-95	
2-13	Delegation of responsibility for managing impacts	pg. 59; AR pg. 94-95	
2-14	Role of the highest governance body in sustainability reporting	pg. 59, 67	
2-15	Conflicts of interest	pg. 60; AR pg. 88-90, 98-99; GA pg. 2	
2-16	Communication of critical concerns	pg. 60; AR pg. 88-89, 101. See comment.	Confidentiality concerns: CRH does not disclose the minutes of Board meetings as this may include commercially-sensitive information.
2-17	Collective knowledge of the highest governance body	pg. 59; AR pg. 82-84, 90, 94-96	
2-18	Evaluation of the performance of the highest governance body	pg. 59, 77; AR pg. 88, 90. GA pg. 1-2. See comment.	For further details of the Board Effectiveness Review, refer to the Governance Appendix, available on <a href="https://www.crh.com">crh.com</a> .
2-19	Remuneration policies	pg. AR pg. 108-132	
2-20	Process to determine remuneration	pg. AR pg. 108-132	
2-21	Annual total compensation ratio	pg. 77; AR pg. 127-129. See comment.	Information incomplete, CRH does not centrally collect data on the level of pay to each of its employees in all countries (required for median pay figure). This data has been published at operating company level for 19% of the Group employees overall. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
<b>Strategy, policies and practices</b>			
2-22	Statement on sustainable development strategy	pg. 4, 7-8	
2-23	Policy commitments	pg. 59-63, 65-66, 77; AR pg. 134-156. See comment.	Link to the Code of Business Conduct: <a href="https://www.crh.com/sustainability/codes-of-conduct">https://www.crh.com/sustainability/codes-of-conduct</a> Link to the Global Compact: <a href="https://unglobalcompact.org/what-is-gc/participants/153008-CRH-plc">https://unglobalcompact.org/what-is-gc/participants/153008-CRH-plc</a>

GRI Code	Description	2022 Reference	Comment
	<b>Strategy, policies and practices continued</b>		
2-24	Embedding policy commitments	pg. <a href="#">59-62</a>	
2-25	Processes to remediate negative impacts	pg. <a href="#">60-61</a> , <a href="#">77</a> . See comment.	Grievance mechanism user inputs and effectiveness are currently managed through an informal process however, we are working to move through our Speak Up Programme and new reporting platform to formalise these inputs and measurements.
2-26	Mechanisms for seeking advice and raising concerns	pg. <a href="#">60-61</a>	
2-27	Compliance with laws and regulations	pg. <a href="#">34</a> , <a href="#">37</a> , <a href="#">60-61</a>	
2-28	Membership associations	pg. <a href="#">23</a> , <a href="#">41-42</a> , <a href="#">46</a> , <a href="#">55</a> , <a href="#">62</a>	
	<b>Stakeholder engagement</b>		
2-29	Approach to stakeholder engagement	pg. <a href="#">12-13</a> , <a href="#">52</a> , <a href="#">55-56</a> ; AR pg. 42, 44-45	
2-30	Collective bargaining agreements	pg. <a href="#">54</a> , <a href="#">75</a>	
	<b>Disclosures on material topics</b>		
3-1	Process to determine material topics	pg. <a href="#">12-13</a> , <a href="#">67</a>	
3-2	List of material topics	pg. <a href="#">13</a>	
<b>GRI 3 Material Topics</b>			
<b>GRI 201</b>	<b>Economic Performance</b>		
3-3	Management of material topics	pg. <a href="#">3</a> , <a href="#">5</a> , <a href="#">12-14</a> , <a href="#">61-63</a> , <a href="#">67-68</a> ; AR pg. 44-45, 82-84, 88-89	
201-1	Direct economic value generated and distributed	\$32.7 billion sales. pg. <a href="#">78</a> ; AR pg. 1, 3, 63. See comment.	CRH discloses financial information in the Annual Report and Form 20-F in line with International Financial Reporting Standards (IFRS). CRH also publishes a Payments to Governments for Extractive Activities Report, available on <a href="http://crh.com">crh.com</a> .
201-2	Financial implications and other risks and opportunities due to climate change	pg. <a href="#">17-18</a> , <a href="#">20-22</a> , <a href="#">27</a> ; AR pg. 56-59, 150-156	
201-3	Defined benefit plan obligations and other retirement plans	pg. <a href="#">78</a> ; AR pg. 234-238. See comment.	Information unavailable on the level of participation in retirement plans as CRH does not centrally. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
201-4	Financial assistance received from government	pg. <a href="#">78</a> . See comment.	No significant assistance.
<b>GRI 202</b>	<b>Market Presence</b>		
3-3	Management of material topics	pg. <a href="#">5</a> , <a href="#">12</a> , <a href="#">13</a> , <a href="#">52</a> , <a href="#">56</a> , <a href="#">61</a> , <a href="#">78</a> . AR pg. 2-5, 44-45. See comment	Note that the topics covered by the indicators within this GRI standard are managed through our Social Policy, they are evaluated and monitored through our Social Review; the results of the Social Review are reviewed by the CRH Board.
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	pg. <a href="#">78</a> . See comment.	Confidentiality constraints. CRH does not publicly disclose this information for confidentiality reasons due to commercial sensitivities around operational activities in individual countries.
202-2	Proportion of senior management hired from the local community	pg. <a href="#">78</a> . See comment.	Confidentiality constraints. CRH does not publicly disclose this information for confidentiality reasons due to commercial sensitivities around operational activities in individual countries.
<b>GRI 204</b>	<b>Procurement Practices</b>		
3-3	Management of material topics	pg. <a href="#">61-63</a>	
204-1	Proportion of spending on local suppliers	pg. <a href="#">61-62</a> , <a href="#">78</a> . See comment.	Information unavailable however, it is monitored at a local level for each operation. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
<b>GRI 205</b>	<b>Anti-corruption</b>		
3-3	Management of material topics	pg. <a href="#">12-13</a> , <a href="#">59-60</a> ; AR pg. 44-45, 101, 134, 145	
205-1	Operations assessed for risks related to corruption	pg. <a href="#">59-60</a> , <a href="#">78</a> ; AR pg. 101, 134. See comment.	100% of operations are assessed for risks related to corruption. Further details on risks are disclosed in the 2022 Annual Report and Form 20-F, available on <a href="http://crh.com">crh.com</a> .
205-2	Communication and training about anti-corruption policies and procedures	pg. <a href="#">59-60</a> , <a href="#">78</a> ; AR pg. 101, 134, 145. See comment.	Information unavailable, contractual agreements with business partners may prevent reporting. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
205-3	Confirmed incidents of corruption and actions taken	pg. <a href="#">59-60</a> , <a href="#">78</a> ; See comment.	Note that there were no investigations or legal cases from external parties into allegations of corruption against CRH or any of its group businesses in 2022. No contracts with business partners were terminated or not renewed due to violations related to corruption.
<b>GRI 206</b>	<b>Anti-competitive Behaviour</b>		
3-3	Management of material topics	pg. <a href="#">12-13</a> , <a href="#">59-60</a>	
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	pg. <a href="#">59-60</a> , <a href="#">78</a> . See comment.	Confidentiality constraints. CRH does not publicly disclose this information for confidentiality reasons due to commercial sensitivities around operational activities in individual countries.

## GRI 3 Material Topics Continued

GRI Code	Description	2022 Reference	Comment
<b>GRI 207</b>	<b>Tax</b>		
3-3	Management of material topics	pg. <a href="#">14, 60</a> ; TS pg. 2	
207-1	Approach to tax	pg. <a href="#">60, 79</a> ; TS pg. 2-3. See comment.	For further details of CRH's approach to taxation, refer to the CRH Tax Strategy, available on <a href="https://www.crh.com">crh.com</a> .
207-2	Tax governance, control, and risk management	pg. <a href="#">59-60, 79</a> ; TS pg. 3. See comment.	For further details of CRH's tax governance and risk management frameworks, refer to the CRH Tax Strategy, available on <a href="https://www.crh.com">crh.com</a> .
207-3	Stakeholder engagement and management of concerns related to tax	pg. <a href="#">55, 79</a> ; TS pg. 2. See comment.	For further details of CRH's engagement and management of concerns related to tax, refer to the CRH Tax Strategy, available on <a href="https://www.crh.com">crh.com</a> .
207-4	Country-by-country reporting	pg. <a href="#">79</a> . See comment.	Confidentiality constraints. CRH does not publicly disclose this information for confidentiality reasons due to commercial sensitivities around operational activities in individual countries.
<b>GRI 301</b>	<b>Materials</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 22, 27, 29, 61, 65</a>	
301-1	Materials used by weight or volume	pg. <a href="#">27, 29, 70, 72, 79</a> . See comment.	The materials used in CRH products are not based on renewable materials, but all of CRH's materials produced are recyclable.
301-2	Recycled input materials used	pg. <a href="#">27-29, 72</a> . See comment.	Alternative raw materials are those that replace traditional raw materials. For CRH, the more significant alternative raw materials used are non-renewable materials such as recycled asphalt pavement (RAP) and recycled asphalt shingles (RAS), construction and demolition (C&D) waste and materials with cementitious properties, such as fly ash and ground granulated blast-furnace slag (GGBS), which are by-product materials sourced mainly from external power generation and steel production to replace virgin materials in cement, concrete and concrete products.
301-3	Reclaimed products and their packaging materials	pg. <a href="#">79</a> . See comment.	Not applicable for CRH as most product (by weight) is delivered in bulk, without packaging.
<b>GRI 302</b>	<b>Energy</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 20-22, 26-27, 61, 65, 84-85</a>	
302-1	Energy consumption within the organisation	pg. <a href="#">67, 69, 70, 79</a> . (196.3 PJ) (54.5 TWh) See comment.	In 2022, total energy consumption was reported as 196.3 PJ; electricity 24.1 PJ, heating 172.2 PJ, cooling n/a, steam n/a. The total fuel consumption from non-renewable sources was reported as 49.1 PJ and renewable sources was reported as 147.2 PJ. Note that CRH is not an energy producer and sale of energy is not a focus of the Group.
302-2	Energy consumption outside of the organisation	pg. <a href="#">79</a> . See comment.	Information unavailable / incomplete. This information is not centrally collected, however it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
302-3	Energy intensity	pg. <a href="#">69, 79</a> . See comment.	Energy intensity for cement is 897 kcal/kg clinker. Refers to kiln fuels (internal energy).
302-4	Reduction of energy consumption	pg. <a href="#">20-21, 67, 69, 79</a> . See comment.	Reduction of energy are across all energy sources (solid, liquid, gaseous and electrical). Energy savings are consolidated based on year-on-year reductions.
302-5	Reductions in energy requirements of products and services	pg. <a href="#">27, 76, 79</a> . See comment.	Information unavailable / incomplete. This information is not centrally collected, however it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
<b>GRI 303</b>	<b>Water and Effluents</b>		
3-3	Management of material topics	pg. <a href="#">12, 13, 15, 22, 23, 31-34, 61, 65</a>	
303-1	Interactions with water as a shared resource	pg. <a href="#">34</a>	
303-2	Management of water discharge-related impacts	pg. <a href="#">32, 36, 79</a> . See comment.	The specific choice of water quality standards and parameters can vary depending on an organisation's products, services, and facility locations, and can depend on national and/or regional regulations, as well as the profile of the receiving waterbody.
303-3	Water withdrawal	pg. <a href="#">34, 67, 71, 79</a> . See comment.	None identified as significantly affected. In 2022, total water withdrawal was reported as 114.7m <sup>3</sup> , freshwater 114.7m <sup>3</sup> and other n/a. In 2022, total water withdrawal in areas of water stress was reported as 1.9m <sup>3</sup> ; surface water 0.3m <sup>3</sup> , groundwater 1.2m <sup>3</sup> , quarry water 0.3m <sup>3</sup> , rainwater <0.1m <sup>3</sup> , utility water 0.1m <sup>3</sup> . In 2022, total water withdrawal in areas of water stress was reported as 1.9m <sup>3</sup> ; fresh water 1.9m <sup>3</sup> and other n/a.
303-4	Water discharge	pg. <a href="#">34, 67, 71, 79</a> . See comment.	In 2022, total water discharge was reported as 32.8m <sup>3</sup> ; freshwater 32.8m <sup>3</sup> and other 0.0m <sup>3</sup> . In 2022, total water discharge in areas of water stress was reported as 1.3m <sup>3</sup> ; fresh water 1.3m <sup>3</sup> and other n/a. Any substances of concern are regulated through discharge licences.
303-5	Water consumption	pg. <a href="#">34, 67, 71, 79</a> . See comment.	In 2022, total water consumption in areas of water stress was reported as 0.6m <sup>3</sup> . Water storage is not material.



## GRI 3 Material Topics Continued

GRI Code	Description	2022 Reference	Comment
<b>GRI 304</b>	<b>Biodiversity</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 40-42, 65</a>	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	pg. <a href="#">40-41, 72, 79</a> . See comment.	Information unavailable / incomplete. This information is not centrally collected, however it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
304-2	Significant impacts of activities, products and services on biodiversity	pg. <a href="#">36-42</a>	
304-3	Habitats protected or restored	pg. <a href="#">36-42, 72, 80</a> . See comment.	Information unavailable / incomplete. This information is not centrally collected, however it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	pg. <a href="#">80</a> . See comment.	Information unavailable / incomplete. This information is not centrally collected, however it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
<b>GRI 305</b>	<b>Emissions</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 17-24, 61, 65</a>	
305-1	Direct (Scope 1) GHG emissions	pg. <a href="#">20, 67, 69-70, 80</a> . See comment.	Biogenic emissions are not included in the scope of the factors used.
305-2	Energy indirect (Scope 2) GHG emissions	pg. <a href="#">20, 67, 69-70, 80</a> .	
305-3	Other indirect (Scope 3) GHG emissions	pg. <a href="#">20, 67, 69-70, 80</a> .	
305-4	GHG emissions intensity	pg. <a href="#">20, 80</a> . See comment.	In 2022, Greenhouse Gas Emissions Scope 1 and Scope 2 CO <sub>2</sub> e emissions were 1.0 kg/\$ revenue.
305-5	Reduction of GHG emissions	pg. <a href="#">20, 67</a>	
305-6	Emissions of ozone-depleting substances (ODS)	pg. <a href="#">80</a> . See comment.	No significant emissions.
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	pg. <a href="#">36-39, 67, 69-71</a>	
<b>GRI 306</b>	<b>Waste</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 26-27, 29, 61, 65</a>	
306-1	Waste generation and significant waste-related impacts	pg. <a href="#">25-27, 29, 72</a>	
306-2	Management of significant waste-related impacts	pg. <a href="#">10, 22, 26, 27, 29, 72</a>	
306-3	Waste generated	pg. <a href="#">27, 29, 72</a>	Breakdown of waste by: inert (1.86m tonnes), hazardous (0.04m tonnes) and non-hazardous (0.61m tonnes) and there were two methods of waste treatment: recycling (2.27m tonnes) and disposal (0.24m tonnes).
306-4	Waste diverted from disposal	pg. <a href="#">29, 72</a>	Although all waste is managed in line with local waste regulations [entailing a third-party issuing regular reports and chains of custody of waste removed from site], this information is not centrally collected. Instead it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
306-5	Waste directed to disposal	pg. <a href="#">29, 72</a>	Although all waste is managed in line with local waste regulations [entailing a third-party issuing regular reports and chains of custody of waste removed from site], this information is not centrally collected. Instead it is monitored at a local level for each operation. We are assessing the systems needed to collect this information centrally. If viable, we would be in a position to report this information in the near term.
<b>GRI 308</b>	<b>Supplier Environmental Assessment</b>		
3-3	Management of material topics	pg. <a href="#">61-63</a>	
308-1	New suppliers that were screened using environmental criteria	pg. <a href="#">61-63, 80</a> . See comment.	Information unavailable / incomplete. Note that CRH's Supplier Code of Conduct, available on <a href="http://crh.com">crh.com</a> , includes safety, environmental, labour practice, human rights, society and other people and community criteria; screening and audits reflect all these criteria. The percentage of new suppliers screened using environmental criteria is not available. CRH does not gather data in the categories required by GRI, refer to the pages referenced for details on our approach to supplier assessment. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.

## GRI 3 Material Topics Continued

GRI Code	Description	2022 Reference	Comment
<b>GRI 308</b>	<b>Supplier Environmental Assessment Continued</b>		
308-2	Negative environmental impacts in the supply chain and actions taken	pg. <a href="#">61-63</a> , <a href="#">80</a> . See comment.	Information unavailable / incomplete. CRH does not gather data in the categories required by GRI, refer to the pages referenced for details on our approach to supplier assessment. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
<b>GRI 401</b>	<b>Employment</b>		
3-3	Management of material topics	pg. <a href="#">12-13</a> , <a href="#">52-54</a> , <a href="#">61</a> , <a href="#">65-66</a>	
401-1	New employee hires and employee turnover	pg. <a href="#">54</a> , <a href="#">74</a> , <a href="#">81</a> . See comment.	Turnover in the region "Americas" is 73% and in the region "Europe and Asia" is 27%. Turnover in the category "under 30 years" is 30%, in the category "30-49 years" is 44% and in the category "over 50 years" is 26%. In 2022, the Voluntary Turnover at CRH was 17% (2021: 15%). In 2022, 26% of our employees were newly recruited (2021: 25%). New hire age profile; "under 30 years" is 35%, "30-49 years" is 45%, and "over 50 years" is 20%. Overall, 60% of managerial positions were filled internally (2021: 33%). Group wide, 10% (2021: 9.4%) of employee positions were filled by internal candidates in 2022.
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	pg. <a href="#">54</a> , <a href="#">81</a> . See comment.	Not applicable due to regional differences in employee benefits and national social systems.
401-3	Parental leave	pg. <a href="#">54</a> , <a href="#">81</a> . See comment.	Information unavailable. CRH does not collect this information centrally, however it is monitored at a local level for each operation. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
<b>GRI 403</b>	<b>Occupational Health and Safety</b>		
3-3	Management of material topics	pg. <a href="#">12-23</a> , <a href="#">44-48</a> , <a href="#">65-66</a>	
403-1	Occupational health and safety management system	pg. <a href="#">44</a> , <a href="#">65-66</a>	
403-2	Hazard identification, risk assessment, and incident investigation	pg. <a href="#">44-46</a> , <a href="#">60</a> , <a href="#">65-66</a> , <a href="#">81</a> . See comment.	Accidents to women account for 4% of total accidents and 3% of total work days lost in 2022. Accident data cannot be disclosed by region due to confidentiality concerns.
403-3	Occupational health services	pg. <a href="#">47</a>	
403-4	Worker participation, consultation, and communication on occupational health and safety	pg. <a href="#">45</a> , <a href="#">47</a> , <a href="#">55</a>	
403-5	Worker training on occupational health and safety	pg. <a href="#">45</a> , <a href="#">47</a> , <a href="#">73</a>	
403-6	Promotion of worker health	pg. <a href="#">47</a>	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	pg. <a href="#">47</a>	
403-8	Workers covered by an occupational health and safety management system	pg. <a href="#">45</a> , <a href="#">47</a> , <a href="#">65-66</a> , <a href="#">73</a>	
403-9	Work-related injuries	pg. <a href="#">46</a> , <a href="#">73</a> , <a href="#">81</a> . See comment.	Information unavailable. This data is collected internally. CRH reviews annually the scope of data collection and where appropriate and practicable in the future will gather and report on this topic.
403-10	Work-related ill health	pg. <a href="#">46-47</a> , <a href="#">73</a> , <a href="#">81</a> . See comment.	In 2022, employee absenteeism was 2.4% in total, with 81% in the category "medically certified", 14% in the category "medically uncertified", 3% in the category "other" and 2% in the category "accidental injury". The employee occupational illness rate was 0.25 cases per million work-hours. Information unavailable for contractors.
<b>GRI 404</b>	<b>Training and Education</b>		
3-3	Management of material topics	pg. <a href="#">12-13</a> , <a href="#">53</a> , <a href="#">59-61</a>	
404-1	Average hours of training per year per employee	pg. <a href="#">45</a> , <a href="#">53</a> , <a href="#">75</a> , <a href="#">81</a> . See comment.	Note that relevant training is provided regardless of gender. In 2022, on average c. \$1,150 per employee was spent on training.
404-2	Programmes for upgrading employee skills and transition assistance programmes	pg. <a href="#">53-54</a>	
404-3	Percentage of employees receiving regular performance and career development reviews	pg. <a href="#">53</a> , <a href="#">75</a> , <a href="#">81</a> . See comment.	Note that performance reviews are provided regardless of gender.

## GRI 3 Material Topics Continued

GRI Code	Description	2022 Reference	Comment
<b>GRI 405</b>	<b>Diversity and Equal Opportunity</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 49-50, 65-66</a> ; AR pg. 85, 98-99	
405-1	Diversity of governance bodies and employees	pg. <a href="#">12-13, 49-50, 74, 82</a> ; AR pg. 82-85, 98-99. See comment.	In the United States, 86% of the employees are White, 9% Black and 5% Other. In 2022, there were 17% Latino/Hispanics in the workforce. Where diversity differences exist compared to the communities we operate in, there are mitigation plans in place. In Europe, 86% of employees were reported as being "National".
405-2	Ratio of basic salary and remuneration of women to men	pg. <a href="#">82</a> . See comment.	Information incomplete, CRH does not centrally collect data on the level of pay to each of its employees in all countries. This data has been published at operating company level for 19% of the Group employees overall. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic. In 2022, 13% of our managerial employees in revenue generating roles were women. This feeds into our overall I&D target of 33% of women in senior management roles. In 2022, 35% of graduates recruited into STEM-related positions were women.
<b>GRI 406</b>	<b>Non-discrimination</b>		
3-3	Management of material topics	pg. <a href="#">49-50, 59-61</a>	
406-1	Incidents of discrimination and corrective actions taken	pg. <a href="#">61-63, 82</a> . See comment.	There were a total of 8 proven instances of discrimination in 2022, reported through our Social Review. All were investigated fully with policies and training reinforced wherever necessary and disciplinary action taken as appropriate.
<b>GRI 407</b>	<b>Freedom of Association and Collective Bargaining</b>		
3-3	Management of material topics	pg. <a href="#">54, 61-63, 65-66</a>	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	pg. <a href="#">54, 61-63, 66, 82</a> . See comment.	Information incomplete however, it is monitored at a local level for each operation. CRH reviews annually the scope of data collection and where appropriate and practicable in the future will gather and report on this topic. For further details of CRH's position on freedom of association and collective bargaining, refer to the CRH Modern Slavery Statement, available on <a href="http://crh.com">crh.com</a> .
<b>GRI 408</b>	<b>Child Labour</b>		
3-3	Management of material topics	pg. <a href="#">54, 61-63, 65-66</a>	
408-1	Operations and suppliers at significant risk for incidents of child labour	pg. <a href="#">61, 82</a> . See comment.	Information incomplete however, it is monitored at a local level for each operation. CRH reviews annually the scope of data collection and where appropriate and practicable in the future will gather and report on this topic. For further details of CRH's position on forced or compulsory labour, refer to the CRH Modern Slavery Statement, available on <a href="http://crh.com">crh.com</a> .
<b>GRI 409</b>	<b>Forced or Compulsory Labour</b>		
3-3	Management of material topics	pg. <a href="#">54, 61-63, 65-66</a>	
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	pg. <a href="#">82</a> . See comment.	Information incomplete however, it is monitored at a local level for each operation. CRH reviews annually the scope of data collection and where appropriate and practicable in the future will gather and report on this topic. For further details of CRH's position on forced or compulsory labour, refer to the CRH Modern Slavery Statement, available on <a href="http://crh.com">crh.com</a> .
<b>GRI 410</b>	<b>Security Practices</b>		
3-3	Management of material topics	pg. <a href="#">61, 59, 65-66, 82</a> . See comment.	Operating companies operate in accordance with the Social Policy and CoBC.
410-1	Security personnel trained in human rights policies or procedures	pg. <a href="#">82</a> . See comment.	Note that in 2022, 34% of operating companies had security personnel onsite and 100% of companies provided human rights training to security personnel. Training is generally equally provided to security personnel that are the employees of third parties.
<b>GRI 413</b>	<b>Local Communities</b>		
3-3	Management of material topics	pg. <a href="#">12-13, 55-57, 61</a>	
413-1	Operations with local community engagement, impact assessments, and development programmes	pg. <a href="#">56-57, 60-61, 72, 82</a> . See comment.	Note that 77% of companies carried out human rights assessments, similar to the past 3 years (Europe: 69%, Americas: 87%, Asia: 75%). The challenge of gender diversity was the only topic reported to have been identified.
413-2	Operations with significant actual and potential negative impacts on local communities	pg. <a href="#">55-57, 72, 82</a> ; AR pg. 266-267. See comment.	Not applicable. Note that potential negative impacts from dust, noise, blasting and traffic are mitigated against and associated mainly with extractive locations, the physical location and numbers of these are listed in the Annual Report. No significant impacts on local communities in 2022.



## GRI 3 Material Topics Continued

GRI Code	Description	2022 Reference	Comment
<b>GRI 414</b>	<b>Supplier Social Assessment</b>		
3-3	Management of material topics	pg. <a href="#">61-63</a>	
414-1	New suppliers that were screened using social criteria	pg. <a href="#">61-63</a> , <a href="#">83</a> . See comment.	100% of new suppliers were screened in line with the CRH Supplier Code of Conduct. For further details supplier screening, refer to the CRH Modern Slavery Statement, available on <a href="https://www.crh.com">crh.com</a> .
414-2	Negative social impacts in the supply chain and actions taken	pg. <a href="#">61-63</a> , <a href="#">83</a> . See comment.	At commodity level our supplier assessment approach is phased over time and geographically. Data from operations is not available in the breakdown required in this GRI Standard, and the definition of what is 'significant' will vary depending on location and commodity category. Where increased digitisation of supply chain management permits the production of data for this Standard, we will publish it. For further details on potential impacts in our supply chain, refer to the CRH Modern Slavery Statement, available on <a href="https://www.crh.com">crh.com</a> .
<b>GRI 415</b>	<b>Public Policy</b>		
3-3	Management of material topics	pg. <a href="#">83</a> ; AR pg. 90, 104-105, 152. See comment.	Not applicable. No significant contributions. For further details on our policy positions, refer to the CRH Climate Advocacy Review, available on <a href="https://www.crh.com">crh.com</a> .
415-1	Political contributions	pg. <a href="#">83</a> ; AR pg. 48. See comment.	Not applicable. No significant contributions.
<b>GRI 416</b>	<b>Customer Health and Safety</b>		
3-3	Management of material topics	pg. <a href="#">45</a> , <a href="#">62</a> , <a href="#">65-66</a>	
416-1	Assessment of the health and safety impacts of product and service categories	pg. <a href="#">45</a> , <a href="#">62</a> . See comment.	No products are known to require improvements relating to health & safety impacts, all our products are manufactured to the highest national and regional technical standards and specifications and are independently certified. In addition, many of our businesses operate to ISO 9001 Quality Management Systems, further guaranteeing product quality.
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	pg. <a href="#">83</a> . See comment.	No non-compliance with regulations and/or voluntary codes was reported in 2022.
<b>GRI 417</b>	<b>Marketing and Labeling</b>		
3-3	Management of material topics	pg. <a href="#">26-30</a> , <a href="#">46</a> , <a href="#">65</a> , <a href="#">66</a> , <a href="#">72</a>	
417-1	Requirements for product and service information and labeling	pg. <a href="#">26-30</a> , <a href="#">46</a> , <a href="#">65</a> , <a href="#">66</a> , <a href="#">72</a>	
417-2	Incidents of non-compliance concerning product and service information and labeling	pg. <a href="#">83</a> . See comment.	None known.
417-3	Incidents of non-compliance concerning marketing communications	pg. <a href="#">62</a> , <a href="#">83</a> . See comment.	The organisation has not identified any non-compliance with regulations and/or voluntary codes.
<b>GRI 418</b>	<b>Customer Privacy</b>		
3-3	Management of material topics	pg. <a href="#">83</a> . See comment.	The organisation has not identified any non-compliance with regulations and/or voluntary codes.
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	pg. <a href="#">83</a> . See comment.	In 2022, there were no substantiated complaints concerning breaches of customer privacy and losses of customer data.

## Independent Limited Assurance Report to CRH plc

### Scope of engagement

DNV Business Assurance Services UK Limited (“DNV”, “us” or “we”) were commissioned by CRH Group Services Limited to provide limited assurance to CRH plc (“CRH”) over the Subject Matter presented in CRH 2022 Sustainability Performance Report - Solutions for a sustainable future (the “Report”) for the reporting year ended 31st December 2022.

### Subject matter

The scope and boundary of our work is restricted to the following areas (collectively the “Subject Matter”):

#### 1. ISAE 3000 Selected Information

The performance indicators included within the Report (the “Selected Information”), are listed in Annex I in the tables: Group Level Indicators and GCCA Indicators and reported on pages 69 to 75 of CRH’s Report.

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used CRH’s Reporting History, scope and basis section (the “Data Criteria”), which can be found on pages 67 to 68 of the Report.

#### 2. AA1000 Principles

The nature and extent of adherence of the Report to the AA1000 AccountAbility principles of inclusivity, materiality, responsiveness and impact (the “AA1000 Principles”). To assess the AA1000 AccountAbility Principles (AA1000AP) 2018 (the “Principles Criteria”) we used the AA1000AS v.3 assurance standard.

#### 3. GRI Standards

Preparation of the Report in accordance with the GRI Standards. To assess the preparation of the Report in accordance with the GRI Standards we have used the publicly available GRI Standards 2021 (the “Consolidated set of GRI Sustainability Reporting Standards 2021”).

#### 4. SASB Standard: selected indicators

The SASB selected indicators included within the Report are listed in Annex I in the table: SASB Group Level Indicators and reported on page 76 of CRH’s Report.

We have not performed any work, and do not express any conclusions, on any other information outside of the Subject Matter that may be published in the Report or on CRH’s website for the current reporting period or for previous periods.

### Our conclusions

#### 1. Selected Information

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared in all material respects, in accordance with the Data Criteria.

This conclusion relates only to the Selected Information and is to be read in the context of this Independent Limited Assurance Report, in particular, the inherent limitations explained below.

#### 2. AA1000 Principles

Based on the work we have undertaken, nothing has come to our attention that leads us to conclude that the Report is not in adherence with the AA1000 Principles as described in the Principles Criteria. We comment on the nature and extent of each individually below.

#### 3. GRI Standards

Based on the work we have undertaken, we believe that the report is in line with the requirements of the GRI Standards 2021 (the “Consolidated set of GRI Sustainability Reporting Standards 2021”).

#### 4. SASB Standard: selected indicators

Based on the work undertaken, nothing has come to our attention that causes us to believe that the Selected Indicators are not fairly stated and has not been prepared in all material respects in accordance with the Industry standard Construction Materials Sustainability Accounting Standard 2018, prepared by the Sustainability Accounting Standards Board (SASB).

### Standards and level of assurance

For the Selected Information, we performed a Limited Assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – ‘Assurance Engagements other than Audits and Reviews of Historical Financial Information’ (revised), issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements, and plan and perform the assurance engagement to obtain Limited Assurance.

For the AA1000 Principles, our assurance engagement was also planned and performed to meet the requirements of a Type 1 “moderate level” of assurance, as defined by AA1000 Assurance Standard (A1000AS v3). For consistency, in this Independent Limited Assurance Report we also refer to this scope as “Limited Assurance”.

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The procedures performed in a Limited Assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; and the level of assurance obtained is substantially lower than the assurance that would have been obtained, had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion, so that the risk of this conclusion being in error is reduced but not reduced completely.

### Basis of our conclusion

#### 1. Selected Information

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information. Our work included, but was not restricted to:

- Reviewing external media reports to identify relevant sustainability issues for CRH plc in the reporting period;
- Assessing the appropriateness of the Data Criteria for the Selected Information;
- Reviewing Group procedures, policies and guidance for data collection, aggregation, measurement, analysis and reporting of specified performance information at site and Group level, and assessing their alignment with the Data Criteria;
- Conducting interviews with CRH’s management to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report the Selected Information;
- Physical visits to sites selected in conjunction with CRH, including: APG (US); Roadstone (Ireland); Eqiom Rochefort sur Nenon (France); Ancon (UK); Ozarow Cement (Poland); Ash Grove Chanute (US); Ash Grove Louisville (US); Rohoznik Cement (Slovakia), to review the processes and systems for preparing the Selected Information at site level for consolidation at Group level. Also, performing limited substantive testing on a selective basis of the Selected Information to check that data had been appropriately measured, recorded, collated and reported at site level. These sites were chosen to provide a representative sample, based on the type and tonnage of material produced, geographical location and whether the site was a legacy plant or a recent acquisition. The percentage contribution of cement plants visited to overall cement-related CO<sub>2</sub> gross emissions was 19.1%;
- Two visits to CRH’s headquarters in Dublin, Ireland: one in person visit to review the processes for gathering and consolidating the Selected Information and a virtual visit to check its consolidation;
- Reviewing whether the evidence, measurements, and their scope provided to us by CRH for the Selected Information, was prepared in line with the Data Criteria; and
- Reading the Report and narrative accompanying the Selected Information in the Report with regards to the Data Criteria.

#### 2. AA1000 Principles

We are required to plan and perform our work in order to form an opinion over the adherence of the AA1000 Principles of the Report. Our work included, but was not restricted to:

- Reviewing the current sustainability issues that could affect CRH and would be of interest to stakeholders;
- Reviewing CRH’s approach to stakeholder engagement and interviews with four external stakeholders;
- Reviewing information provided to us by CRH on its reporting and management processes relating to the AA1000 Principles; and
- Interviewing senior management, selected in conjunction with CRH, with responsibility for the management of sustainability issues, and reviewing selected evidence to support the issues discussed.

#### 3. GRI Standards

We reviewed the Report to form an opinion over its preparation against the GRI Standards.

#### 4. SASB Standard

We are required to plan and perform our work in order to form an opinion over the reporting of selected indicators in accordance with the Construction Materials Sustainability Accounting Standard 2018, prepared by the Sustainability Accounting Standards Board (SASB).

### Inherent limitations

All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities.

Our assurance relies on the premise that the data and information provided to us by CRH have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Limited Assurance Report.

### Our competence, independence and quality control

DNV established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. Our multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

### Responsibilities of the management of CRH and DNV

The management of CRH has sole responsibility for:

- Preparing and presenting the Selected Information in accordance with the Data Criteria;
- Preparing the Report in adherence to the AA1000 Principles;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Data Criteria; and
- The contents and statements contained within the Report and the Data Criteria.

### Observations

Our observations and areas for improvement were raised in a separate report to CRH's management. Selected observations are provided below. These observations do not affect our conclusions set out above:

#### 1. Selected Information

- We noted a high level of awareness of GHG emissions during our site visits, both in terms of the importance of reporting accurate data, and how overall site level performance contributes towards CRH Group level targets;
- We noted that Scope 3 GHG emissions data has improved this year, as more granular data and relevant guidance has become available. We recommend that CRH continues to further refine and improve this data set, to ensure upstream and downstream emissions continue to be reported accurately;
- Accurate reporting of contractor working hours continues to be challenging in line with the building materials sector generally. We recommend CRH continues to focus on this issue to further improve data quality and accuracy;
- We observed that a thorough and robust quality control process is in place for Environmental, Health and Safety, and Social data where variances and outlier values are investigated, with a focus on continuous improvement of data quality; and
- We noted a small number of immaterial corrections to Selected Information data were made during the assurance process. Updated data was provided in all cases and incorporated correctly in consolidated data presented in the Report.

#### 2. AA1000 Principles

- Inclusion: CRH engages with a wide range of stakeholders, at site as well as Group level. Feedback from the stakeholders interviewed was largely positive.
- Materiality: CRH updated their materiality process in 2019, and reviewed this again in 2021 and 2022. This resulted in the importance of some material issues being adjusted based on the latest stakeholder feedback, however, external stakeholders were not formally engaged in the Materiality Reviews conducted since 2019. We understand that CRH plans to conduct a Double Materiality Assessment in 2023 and recommend that a wide range of diverse external stakeholders are formally engaged in this process.
- Responsiveness: Information received from the stakeholder interviews we conducted demonstrated a high level of responsiveness to stakeholder feedback.
- Impact: CRH identified the major impacts its operations have through a human rights impact assessment which identified areas and regions at risk. The Report sets out targets on material areas to measure impact. To further align with the updated GRI guidelines, we recommend that for future disclosures CRH systematically reports the potential human rights impacts of each of its material issues on its stakeholders.

### DNV Business Assurance Services UK Limited

London, UK, 24th of March 2023

"DNV" is a trading name of DNV Business Assurance Services UK Limited, a wholly owned subsidiary of DNV Business Assurance Group, and a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. Registered Office: 4th Floor, Vivo Building, 30 Stamford St, London SE1 9LQ [www.dnv.com/assurance/](http://www.dnv.com/assurance/)



## Annex I: list of KPIs in scope for CRH

### Indicators for Assurance

### Unit

Indicators for Assurance	Unit
<b>Group Level indicators</b>	
<b>Health and Safety</b>	
Group fatalities, directly employed	number
Group fatalities, indirectly employed	number
Group fatalities, involving onsite 3 <sup>rd</sup> parties	number
Group lost time injuries (LTI) rate per 1 million man hours (Frequency Rate)	number
Group lost time injuries (LTI) rate per 1 million man hours (Severity Rate)	number
Zero accident locations	percentage
Average annual accident decrease over last 10 years (Frequency Rate)	percentage
<b>Climate</b>	
Total CO <sub>2</sub> e emissions direct, Scope 1	million tonnes
Total CO <sub>2</sub> e emissions indirect, Scope 2 (location based)	million tonnes
Total CO <sub>2</sub> e emissions indirect, Scope 2 (market based)	million tonnes
Total CO <sub>2</sub> e emissions indirect, Scope 3	million tonnes
Total CO <sub>2</sub> e emissions indirect, Scope 3 Upstream	million tonnes
Total CO <sub>2</sub> e emissions indirect, Scope 3 Downstream	million tonnes
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (location based)	million tonnes
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (market based)	million tonnes
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (location based) + 3	million tonnes
Total CO <sub>2</sub> e emissions, Scope 1 + 2 (market based) + 3	million tonnes
CO <sub>2</sub> e intensity	kg/\$ revenue
CO <sub>2</sub> 2025 cement commitment	kg net CO <sub>2</sub> /t cementitious product
Locations in Physical Climate Risk - drought severity	percentage
<b>Energy</b>	
Total energy consumption	TWh
Total energy consumption	PJ
<b>Emissions</b>	
Total NO <sub>x</sub> emissions	thousand tonnes
Total SO <sub>x</sub> emissions	thousand tonnes
Total particulates emissions (dust)	thousand tonnes
<b>Co-processing fuels and raw materials</b>	
Total alternative materials and fuels	million tonnes
Total alternative materials	million tonnes
Alternative materials used in cement plants	million tonnes
Alternative raw materials rate	percentage
Total alternative fuels	million tonnes
Alternative fuels used in cement plants	million tonnes
Alternative fuels used in cement plants - European Union	percentage
<b>Local Impacts</b>	
Quarries where rehabilitation plan is implemented	percentage
Locations noted for biodiversity	number
<b>Water</b>	
Total water withdrawal	million cubic metres



Group Level Indicators Continued	
<b>Water Continued</b>	
Total water discharge	million cubic metres
Total water consumption	million cubic metres
<b>Social</b>	
Total employed (women)	percentage
Operational employees (women)	percentage
Clerical/admin employees (women)	percentage
Board Directors (women)	percentage
Senior management (women)	percentage
Senior leadership (women)	percentage
<b>Independent Assurance scope: GCCA indicators</b>	
<b>Health and Safety</b>	
Fatality rate, directly employed	rate
Number of fatalities, directly employed	number
Number of fatalities, indirectly employed	number
Number of fatalities, involving onsite 3 <sup>rd</sup> parties	number
Number of lost time injuries (LTI), directly employed	number
LTI frequency rate, directly employed	rate
LTI frequency rate, indirectly employed	rate
LTI severity rate, directly employed	number
<b>Climate Change</b>	
Total direct CO <sub>2</sub> emissions - gross	million tonnes
Total direct CO <sub>2</sub> emissions - net	million tonnes
Specific CO <sub>2</sub> emissions - gross	kg/tonnes of cementitious product
Specific CO <sub>2</sub> emissions - net	kg/tonnes of cementitious product
<b>Emissions Monitoring</b>	
Overall coverage rate	percentage
Coverage rate continuous measurement	percentage
<b>Emissions</b>	
Particulates, specific	g/tonnes of clinker
Particulates, absolute	tonnes per year
Particulates, coverage rate	percentage
NO <sub>x</sub> , specific	g/tonnes of clinker
NO <sub>x</sub> , absolute	tonnes per year
NO <sub>x</sub> , coverage rate	percentage
SO <sub>x</sub> , specific	g/tonnes of clinker
SO <sub>x</sub> , absolute	tonnes per year
SO <sub>x</sub> , coverage rate	percentage
<b>Minor Emissions</b>	
VOC/THC, specific	g/tonnes of clinker
VOC/THC, absolute	tonnes per year
VOC/THC, coverage rate	percentage
PCDD/F, specific	ng/tonne of clinker
PCDD/F, absolute	mg per year
PCDD/F, coverage rate	percentage
Hg, specific	mg/tonne of clinker

Independent Assurance scope: GCCA indicators Continued	
<b>Minor Emissions Continued</b>	
Hg, absolute	kg per year
Hg, coverage rate	percentage
HM1, specific	mg/tonne of clinker
HM1, absolute	kg per year
HM1, coverage rate	percentage
HM2, specific	mg/tonne of clinker
HM2, absolute	kg per year
HM2, coverage rate	percentage
<b>Independent Assurance scope: GCCA indicators Continued</b>	
<b>Co-processing Fuels and Raw Materials</b>	
Alternative fuel rate (kiln fuels)	percentage
Biomass fuel rate (kiln fuels)	percentage
Specific heat consumption for clinker production	kcal/kg of clinker
Alternative Raw Materials rate (% ARM)	percentage
Clinker/cement (equivalent) factor	number
<b>Local impacts</b>	
Percentage (%) of quarries with high biodiversity value where biodiversity management plan is implemented	percentage
Percentage (%) of quarries where rehabilitation plan is implemented	percentage
<b>Water</b>	
Total water withdrawal	million cubic metres
Surface water	million cubic metres
Groundwater	million cubic metres
Quarry water	million cubic metres
Utility water	million cubic metres
Rain water	million cubic metres
Total water discharge	million cubic metres
Surface water	million cubic metres
Public Sewer	million cubic metres
Other	million cubic metres
Total water consumption	million cubic metres
Amount of Water Consumption per unit of cementitious product	litres/metric tonne
<b>SASB Group Level Indicators</b>	
<b>Climate Change</b>	
EM-CM-110a.1: Gross global Scope 1 emissions	Metric tonnes (t) CO <sub>2</sub> e
<b>Air Emissions</b>	
EM-CM-120a.1: NO <sub>x</sub> (excluding N <sub>2</sub> O)	Metric tonnes (t)
EM-CM-120a.1: SO <sub>x</sub>	Metric tonnes (t)
EM-CM-120a.1: Particulate matter (PM10)	Metric tonnes (t)
EM-CM-120a.1: Dioxins/furans	Metric tonnes (t)
EM-CM-120a.1: Volatile organic compounds (VOCs)	Metric tonnes (t)
EM-CM-120a.1: Polycyclic aromatic hydrocarbons (PAHs)	Metric tonnes (t)
EM-CM-120a.1: Heavy metals (Pb, Hg, Cd)	Metric tonnes (t)
<b>Water</b>	
EM-CM-140a.1: Total fresh water withdrawn	Thousand cubic meters (m <sup>3</sup> )

# External benchmarks and recognitions



Listed in the Top 10% of companies in the S&P Sustainability Yearbook, demonstrating strength in corporate sustainability.

Member of  
**Dow Jones Sustainability Indices**  
Powered by the S&P Global CSA

Maintained our place in the S&P DJSI Europe.



Awarded an A- for both CDP Climate and Water in 2022, recognising our work to reduce emissions and protect local resources.



Recognised by CDP as a Supplier Engagement Leader in 2022, raising the level of climate action across our value chain.



Awarded a Prime rating, the highest relative performance rank by ISS ESG.



Awarded an industry-leading rating of AAA in the MSCI ESG Ratings assessment.



Recognised by Morningstar Sustainalytics for our strong management of ESG Material Risks.



Ranked 2<sup>nd</sup> in our sector by VigeoEiris, Moody's ESG rating unit.



Included in the FTSE4Good Index Series of companies demonstrating strong ESG practices.



Listed on the STOXX® Global ESG Leaders Index of the leading global companies based on ESG indicators.

# Note on forward-looking statements

In order to utilise the “Safe Harbor” provisions of the US Private Securities Litigation Reform Act of 1995, CRH plc (the ‘Company’), and its subsidiaries (collectively, ‘CRH’ or the ‘Group’ is providing the following cautionary statement.

These forward-looking statements may generally, but not always, be identified by the use of words such as “will”, “anticipates”, “should”, “could”, “would”, “targets”, “aims”, “may”, “continues”, “expects”, “is expected to”, “estimates”, “believes”, “intends” or similar expressions. These forward-looking statements include all matters that are not historical facts or matters of fact at the time of this document.

By their nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future and reflect the Company’s current expectations and assumptions as to such future events and circumstances that may not prove accurate. A number of material factors could cause actual results and developments to differ materially from those expressed or implied by these forward-looking statements, certain of which are beyond our control and which include, among other things: the ongoing COVID-19 pandemic; economic and financial conditions generally in various countries and regions where we operate; the pace of growth in the overall construction and building materials sector; demand for infrastructure, residential and non-residential construction in our geographic markets; increased competition and its impact on prices; increases in energy and/or raw materials costs; adverse changes to laws and regulations; approval or allocation of funding for infrastructure programmes; adverse political developments in various countries and regions; failure to complete or successfully integrate acquisitions; the effects of climate change and related regulations on our business; political stability and economic growth in relevant areas of the world; wars and acts of terrorism; cyber-attacks or sabotage.

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CRH® is a registered trade mark  
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We welcome feedback and comments from stakeholders on our sustainability reporting.

**Cover image:** We pride ourselves on delivering high-quality building materials and solutions that build, connect and improve our world. For example, Danucem Slovensko a.s. part of our Europe Materials Division in Slovakia, provided approximately 15,000 tonnes of cement and 75,000 tonnes of aggregates for the construction of the Prešov Tunnel in eastern Slovakia. Opened in November 2021, the highway tunnel measuring 2,244m in length, is the most crucial infrastructural project in eastern Slovakia and constitutes an essential part of Prešov's southwestern highway bypass. The long-awaited project was technically one of the most demanding in Slovakia and will provide additional transportation options, reduce traffic impacts, and provide connectivity for communities throughout the region.