



Leading the way to a sustainable future

CRH Sustainability Report 2019



Contents

Inside this year's report

This year's report opens with an overview of our approach to embedding sustainability within our business strategy. We share examples of how we are responding to some of the global trends that will shape our future. We then go into more detail on each of the areas material to our business. We conclude with details of our reporting process, additional data and our assurance statement.

Overview

3	Our global business
4	A message from our Chief Executive
5	Embedding sustainability in our business strategy
6	Creating value and growth through our business model



7	Trends shaping our world
10	CRH 2030 ambitions
14	Supporting the UN Sustainable Development Goals
15	Materiality assessment

Our sustainability priorities

18	Safety	
24	Environment	
36	People	
42	Customers	
46	Collaboration	
54	Integrity	

Our sustainability performance

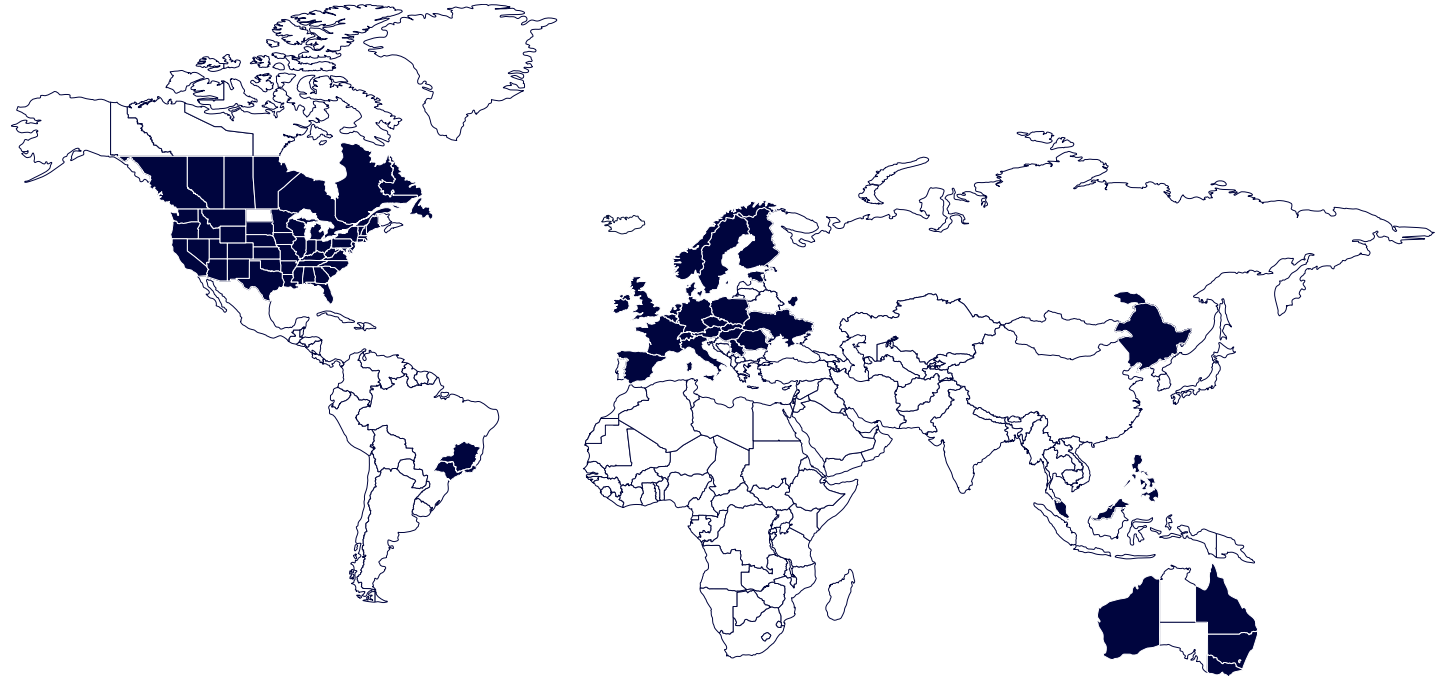
62	Reporting history, scope and basis
63	Sustainability policies
64	Progress on 2020 sustainability targets and ambitions
65	Data in summary
69	GRI Index
77	DNV GL Assurance Statement
79	External recognition and benchmarks



Our global business

Regional scale, global responsibility

CRH is the leading building materials business in the world. Our global footprint spans 30 countries, employing c. 80,300 people at over 3,100 operating locations, serving customers across the breadth of the building materials spectrum. To create long-term value, we embed sustainability principles in all areas of our business strategy. With our diverse product portfolio, we have a unique opportunity to contribute to solving some of the key sustainable development challenges facing society.



<p>AMERICAS MATERIALS</p> <p>SALES €10.4 billion</p> <p>41% Global Sales</p> <ul style="list-style-type: none"> c. 28,600 employees c. 1,450 operating locations 46 US states, six Canadian Provinces and Southeast Brazil <p>Products and services</p> <p>▲ Growth +16% 2018: €9.0 billion</p>	<p>EUROPE MATERIALS</p> <p>SALES €8.5 billion</p> <p>34% Global Sales</p> <ul style="list-style-type: none"> c. 27,250 employees c. 1,160 operating locations 21 countries <p>Products and services</p> <p>▲ Growth +6% 2018: €8.0 billion</p>	<p>BUILDING PRODUCTS</p> <p>SALES €6.2 billion</p> <p>25% Global Sales</p> <ul style="list-style-type: none"> c. 24,450 employees c. 490 operating locations 19 countries <p>Products and services</p> <p>▶ Growth 0% 2018: €6.2 billion</p>
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Note: Financial figures are based on continuing operations only and do not include the Europe Distribution businesses which were divested in 2019.

A message from our Chief Executive

CRH is a global leader in sustainable building materials and has a long history of producing high-performing, climate-friendly materials and products which play an important role in shaping a more sustainable built environment. Our ambition is to continue to drive improvement and growth across all areas of sustainability, creating value for us and our stakeholders.



By embedding sustainability within our strategy, we are ensuring that CRH continues to prosper and grow in the years ahead, while also making sure that our actions have a positive impact on the world around us.”

Albert Manifold
Chief Executive



In 2019 CRH continued to make important strides in progressing our ambitious sustainability agenda. We exceeded a number of our existing environmental sustainability targets and set important new ones to align our business with the goals of the Paris Agreement. We worked hard to maintain our uncompromising approach to safety across our business and set challenging new targets to increase the number of females in senior leadership positions, supporting our ambition for a more inclusive and diverse workforce. We also continued to listen to and engage with our stakeholders, to better understand the positive impact we can make in the countless lives we touch through our business daily.

We continue to lead the way in producing high-performing, climate-friendly materials and products. This includes concrete, which is among the most sustainable building materials in existence, when evaluated on a full life-cycle basis. Concrete is fundamental to human development and will continue to shape the world we live in for generations to come.

We are acutely aware of our role in advancing the global sustainability agenda. As part of our commitment to lead our industry in reducing carbon emissions, we have set a new carbon emissions reduction roadmap, targeting 520kg of net CO₂ per tonne of cementitious product by 2030, the most ambitious target in the industry, representing a 33% reduction compared with 1990 levels. In addition, we also have an ambition to achieve carbon neutrality along the cement and concrete value chain by 2050.

CRH is committed to partnering with its customers to deliver sustainable solutions and we have set a target of generating 50% of all product revenue from products with enhanced sustainability attributes by 2025. These are products which incorporate recycled materials, use alternative fuel or energy sources in production, have sustainability end-uses, or a lower-carbon footprint.

The safety of our people continues to be our number one priority and our approach to workplace safety is uncompromising. In 2019, 94% of our locations were accident-free. However, we deeply regret to report that one fatality occurred during the year, involving a third-party. This underlines the need for us to do even more to ensure the safety of anyone coming into contact with our operations. We are determined to continue to do all we can to achieve our target of zero harm at all of our operations.

-26%

We have exceeded our CO₂ reduction commitment ahead of schedule, achieving a 26% decrease compared with 1990 levels, ahead of our 25% reduction target. We have also announced our CRH 2030 ambitions, including a 33% reduction in specific net cement CO₂ emissions by 2030. Our reduction roadmap is aligned with the Paris Agreement. In addition, we have set an ambition to achieve carbon neutrality along the cement and concrete value chain by 2050.

At CRH we recognise the positive impact of an inclusive workforce and our inclusion and diversity strategy focuses on four key areas: Communication; Education & Awareness; People & Practices; and Data & Measures. As part of this, we have set a 2030 target for 33% females in senior leadership roles.

I am pleased to report that CRH is recognised as an industry leader in sustainability by major Environmental, Social and Governance (ESG) rating agencies. In 2019, we continued to be ranked positively by MSCI, Sustainalytics and the Dow Jones Sustainability Index. In recognition of the increasing importance of ESG issues for our stakeholders we have established a new function, Capital Markets and ESG which is responsible for CRH's engagement with these agencies and other sustainability stakeholders.

I would like to thank everyone working in CRH's businesses around the world for their hard work, effort and dedication to our sustainability initiatives during 2019. I am deeply grateful for the ongoing commitment of everyone in CRH as we work towards our shared purposes. As we look to the next decade, we believe that our strategy to grow and improve our business in a sustainable and responsible way will deliver ongoing value for all our stakeholders and ensure that we live up to our values and the expectations we put on ourselves as employees of CRH.

Albert Manifold
Chief Executive

March 2020

Embedding sustainability in our business strategy

Harnessing sustainable value creation

Our strategy is to grow and improve our business in a sustainable and responsible way, through a relentless focus on performance improvement, focused growth and value creation for the benefit of all our stakeholders. Sustainability principles are fully embedded in our business strategy and values-driven culture and are fundamental to achieving our long-term vision.

Driving growth and value

Increasing demand for more sustainable, integrated and value-added solutions is driving innovation, productivity and technological advancement across our industry. As the leading building materials business in the world, CRH is at the forefront of that change.

Our businesses manufacture, supply and deliver a wide range of high quality, value-added, innovative products and solutions needed to shape and enhance the built environment for modern communities. As we drive performance and growth across our businesses, our values-driven culture helps us to make decisions that consider all stakeholders as well as society and the environment.

Four strategic pillars

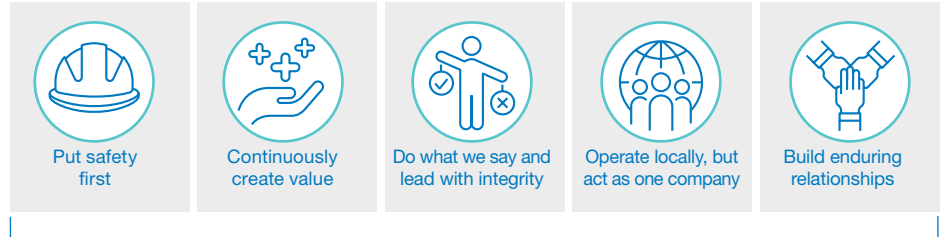
Our business strategy is underpinned by four strategic pillars, which drive our ability to generate superior margins, returns and cash on a continuous basis. In executing our strategy, CRH is at all times focused on ensuring every lever we utilise to create value for our shareholders is conducted in a disciplined, responsible and sustainable manner, thereby mitigating potential risks. Our six sustainability priority areas ensure we are focusing on the areas that are most important to our business and our stakeholders.

Our approach to sustainability

At its core, our approach to sustainability aims to harness the value creation opportunity from sustainability so that we can deliver long-term value for all of our stakeholders.

In collaboration with stakeholders, our actions contribute to the delivery of global initiatives including the Paris Agreement and the UN Sustainable Development Goals (SDGs) (see page 14).

Our values-driven culture



Our strategic pillars



Our sustainability priority areas



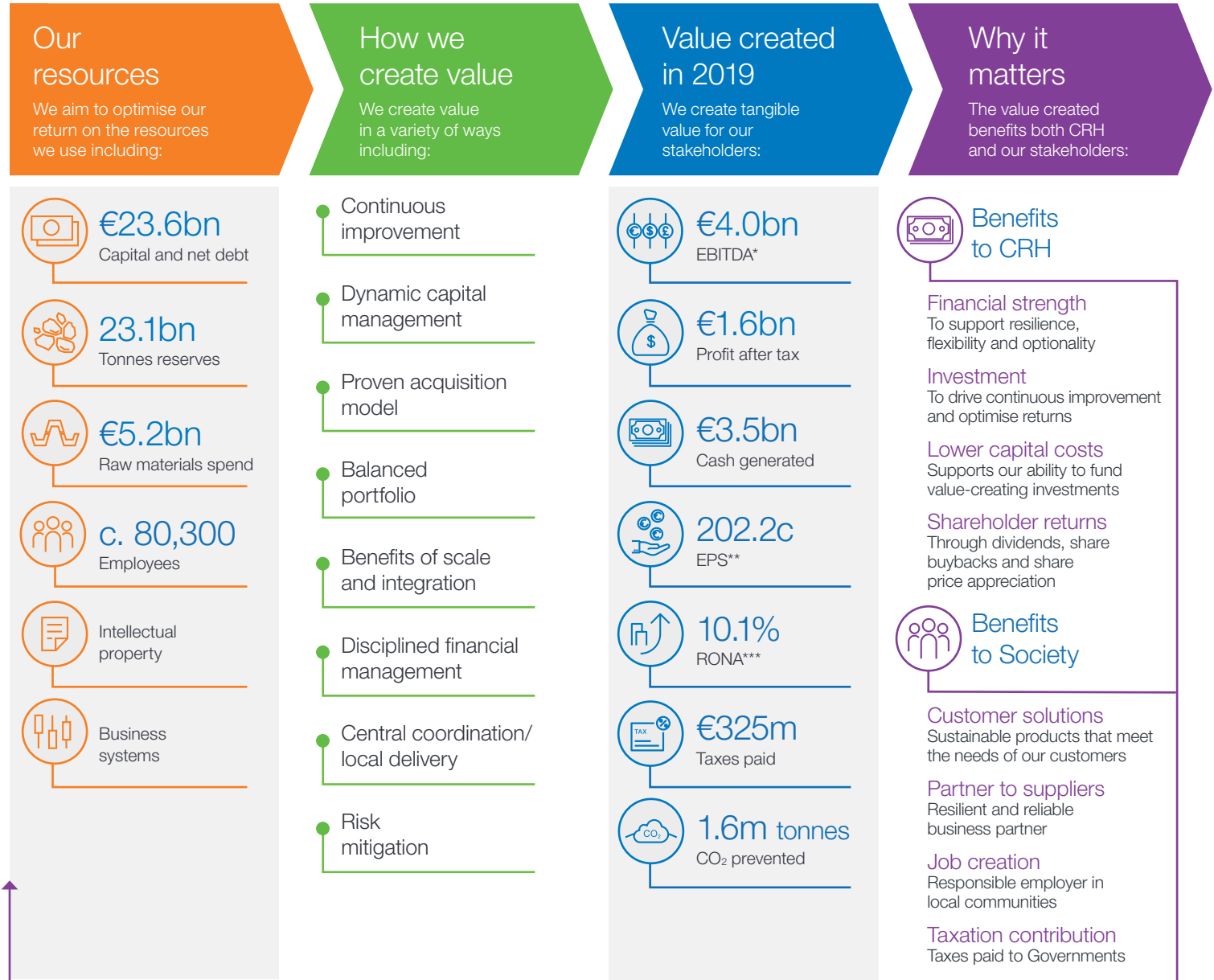
Creating value and growth through our business model

Creating value and growth through our business model

CRH's vertically integrated business model benefits from the efficient allocation of capital and continuous business improvements across the Group. We set the highest standards of integrity and compliance with laws and regulations, underpinned by our commitment to sustainability.

Developing a more sustainable built environment is one of the biggest contributions we can make to society. Our ambition is to continue to drive improvement and growth across all areas of sustainability, creating financial and non-financial value.

We will continue to focus on delivering a superior return on invested capital and maintaining strong cash flows to support the continued sustainable development of the Group.



Note: Financial figures are generally based on continuing operations only and do not include the Europe Distribution businesses which were divested in 2019.
 * EBITDA is defined as earnings before interest, taxes, depreciation, amortisation, asset impairment charges, profit on disposals and the Group's share of equity accounted investments' profit after tax.
 ** Earnings per share
 *** Return on Net Assets (RONA) is a key internal pre-tax measure of operating performance throughout the CRH Group and can be used by management and investors to measure the relative use of assets between CRH's business segments and to compare to other businesses. RONA is calculated by expressing total Group operating profit as a percentage of average net assets.

Trends shaping our world

Trends shaping our world

As the leading building materials business in the world, we are very aware of the forces shaping our world. Cities are continuing to expand, workforce demographics are shifting and new technology is revolutionising the way companies operate. As the understanding around the challenges of climate change grows, the need for sustainable solutions has never been greater.

At CRH, we understand the challenges facing the industry and our business and the opportunities for us to make a difference and create value. The world never stands still, neither can we.



Preparing society to adapt to climate change



Our products contribute to climate adaptation. Gulf Coast, part of our Americas Materials Division, has completed a \$20m project to re-establish shore line, bank and erosion protection along a three-mile stretch of State Highway 87 in Texas prone to flooding. These reinforcements are critical to the community and industry in the surrounding neighbourhoods, forming the first barrier against rising sea levels.

The impact of climate change and the transition towards a low-carbon society are arguably the most important challenges facing our generation.

In 2019, the European Union announced the European Green Deal, a roadmap with actions to reach net-zero greenhouse gas emissions by 2050. As part of this plan, the European Union has announced political commitments to deliver a 50-55% reduction in greenhouse gases, compared to 1990 levels, by 2030. Other countries are setting similar ambitions around achieving the goals of the Paris Agreement.

As one of the most consumed materials in the world, concrete is among the most sustainable building materials in existence, when evaluated on a full life-cycle basis. We are committed to playing our part in delivering a carbon neutral future, setting an ambition to achieve carbon neutrality

along the cement and concrete value chain by 2050.

In addition to this, we have committed to further reducing the CO₂ intensity of our cement to 520kg CO₂/tonne of cementitious product by 2030. This target is among the most ambitious in our industry (see page 11 for more information). We are also investing more in renewable energy across all our activities and developing energy procurement opportunities to strengthen our commitment to carbon emission mitigation.

However, to help society adapt to climate change, we also need to look at the future of building materials. Our industry is focusing on adapting products to help improve the resilience of the built environment to the physical impacts of climate change. Compared to other types of materials used in the built environment, concrete is able to withstand higher temperatures, and our pervious concrete and water capture systems can also help address the shortage concerns of water-stressed regions.

Trends shaping our world - continued

Growth of sustainable cities to meet rapid urbanisation



Our products contribute to a more sustainable built environment. Oldcastle BuildingEnvelope®, part of our Building Products Division, manufactured and supplied a custom engineered curtain wall for the 750-foot-long Marie Josee and Henry R. Kravis Research Building in New York City. This building is part of the Leadership in Energy and Environmental Design (LEED®) certified Stavros Niarchos Foundation – David Rockefeller River Campus project.

Our cities are growing rapidly, with an estimated 1.5 million people added to the global urban population every week. This places a significant burden on infrastructure, services, job creation and the environment. The building materials industry has a responsibility to help meet the demands of a growing population while also supporting our cities to grow sustainably.

Sustainable development requires significantly transforming the way we build and manage our urban spaces. This includes using more sustainable building products within production processes to create more low-carbon, energy efficient buildings throughout their entire life-cycle. Concrete, due to its availability, durability, long life-span and low-carbon footprint, is essential to meeting the demands of a fast-growing population.

We have an opportunity to continue to support governments and the private sector in meeting the sustainability needs of cities in the present and for the future. This can be achieved through offering durable, high quality, energy-efficient sustainable products, manufactured using increased recycled materials. Read more about our sustainable products attributes on page 43.

Responding to demographic and social change

Trends like ageing populations and the new generation of young professionals are changing the shape of the workplace, both in how work is performed as well as the way talent management strategies will evolve.

Employers need to look forward and prepare for the deep demographic changes occurring in the workforce and understand the impact of those changes on their organisations.

Sustainability is an increasingly important factor in attracting and managing talent. Organisations that focus on sustainability put themselves in a better position to attract and retain the new generation of young professionals.

There is also an increasing recognition that a more diverse workforce is key to unlocking value and delivering better performance. At CRH, we acknowledge that more effort is needed to encourage underrepresented groups to consider a career in our industry and we are focusing on greater inclusion and diversity across our business. Read more about our actions in this area on page 40.

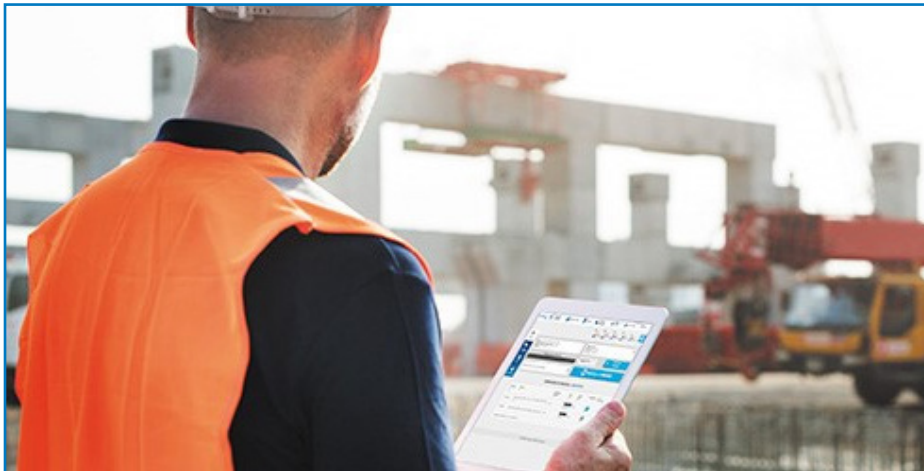
In all companies, talent development is the foundation to building a team that is capable of facing new challenges. At CRH we believe that empowering young people will be critical to meeting these challenges. Our goal is to develop a diverse talent pipeline, getting young people interested in STEM (science, technology, engineering and maths) subjects from an early age and ensuring they have the skills needed in our industry.



We are developing an inclusive culture. A collaboration at Tarmac's Aberthaw cement plant, part of our Europe Materials Division, has launched a fictional children's book to inspire girls to study engineering. The book was launched at Rhoose Community Library and plans are in development to roll out the book across Wales and Tarmac's other cement plants.

Trends shaping our world - continued

Employing technology and innovation to meet the challenges of today



We use technology to ease and speed up the pace of construction. As part of its digital transformation strategy, EQIOM part of our Europe Materials Division in France, launched Digibéton, a new web platform for customer support. This platform is a place of exchange and sharing between EQIOM and its customers, offering services such as concrete control, delivery tracking and access to invoices, simplifying the daily management of its sites and improving operational performance.

Rapid technology advancement is one of the biggest disrupting forces today, radically affecting all areas of industry around the world. We need to continue to embrace its potential for driving innovation, modernisation and improving processes and long-established methods.

We live and work in a fully digital era, using software and innovative technology to make more informed decisions. Today's cutting-edge buildings and structures rely as much on having a solid foundation of digital information as they do concrete. Big data has provided

huge opportunities for us to gather information and improve our products and processes, for example, through better digital knowledge management systems in our cement operations.

New digital, robotic and artificial intelligence technologies are enabling new, value-creating process and product efficiencies previously not possible. The recent convergence of cloud computing and Building Information Modelling (BIM) is revolutionising our approach to sustainability, allowing customers to improve build-time of projects and helping developers meet critical deadlines. These technologies also help us to create more energy efficient buildings, reducing their impact on the environment across the value chain.

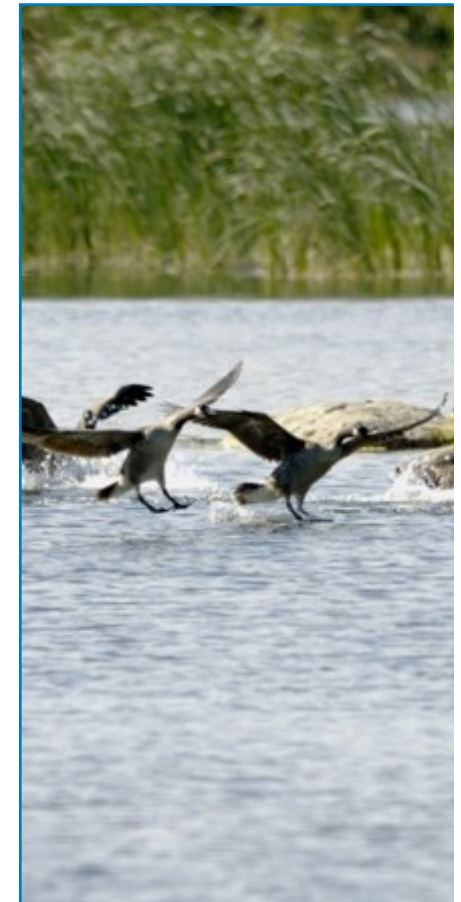
Driving sustainable action through environmental awareness and collaboration

As awareness of the environmental challenges facing our planet continues to rise, new forms of collaboration and activism are galvanising society. Environmental activism has played a crucial role in urging governmental and corporate responses and solutions to ongoing environmental damage.

For there to be positive societal change, it will require cooperation between industry and the wider society on environmental issues. At CRH, we are responding to the concerns of stakeholders and working hard to create value for society, contributing to global initiatives such as the Paris Agreement and the UN SDGs (see page 14). By collaborating and building strong partnerships with industry, government, customers and the wider society, we can use our shared learnings and capabilities to drive sustainable action and innovation.

We have a long history of setting ambitious targets in all areas of sustainability, using our global scale and influence to positively impact society and the environment. To drive transparency and progress, we are committed to reporting on the breadth of our sustainability performance, as we move towards a more sustainable future.

Through our collaborative initiatives and partnerships, including with the Wildlife Habitat Council, we are driving wide-reaching, integrated benefits in biodiversity, community engagement and climate change adaptation.



We collaborate with local and global organisations. Dufferin Aggregates, part of our Americas Materials Division in Canada, is committed to the responsible stewardship of the natural environment. Progressive and award-winning rehabilitation efforts are an ongoing priority for Dufferin. For example, Milton Quarry is a designated World Biosphere area and rehabilitation plans in the area have created new habitats for wildlife.

CRH 2030 ambitions

Future-proofing our approach to sustainability




We believe that CRH can play a leading role in responding to the global trends that are shaping our future. Our ambition to lead the industry in sustainable development is underpinned by our strategy to grow and improve our business in a sustainable and responsible way. We are determined to use our global scale and influence to make a positive difference for society and the environment and contribute to a sustainable future which creates value for all stakeholders. This commitment is evidenced by the successful delivery of our 2020 sustainability targets. We have made good progress over the years, however there is much more that we can do.



As we move into a new decade of action, we have set ambitious objectives and targets to challenge ourselves and measure progress. These ambitions and targets reflect the areas and global trends across which we believe CRH can effect the most change. These focus areas were determined during our updated materiality assessment (see pages 15-16) to identify the issues considered to be a priority for our business, society and stakeholders.

Our ambitions and targets have been benchmarked against leading companies. We have considered the ambitions of governments and global institutions, such as the UN SDGs and the Paris Agreement. Our CRH 2030 ambitions are vital to the delivery of our business objectives and the additional targets are important to meet our responsibilities within the industry.


Delivering on our ambitions and targets will see us continue to embed sustainability within our business strategy and across our activities, at the same time making a positive contribution to the issues facing the environment and society today. You can read more about our CRH 2030 ambitions and additional sustainability targets on pages 11-13.

Safety 


Our ambition is to have a culture of safety and wellness working towards zero harm

Environment 

Our ambition is to play our part in addressing climate change as we strive for carbon neutrality along the cement and concrete value chain by 2050

People 

Our ambition is to be a business where everyone has the same opportunity to develop and progress

Customers 

Our ambition is to offer more solutions that contribute to a sustainable built environment

CRH 2030 ambitions - continued



Our ambition is to have a culture of safety and wellness working towards zero harm

Our target:
 Zero fatalities, in any year

Why this is important to CRH

There are multiple safety hazards associated with our industry. Because of this, we integrate safety into everything we do. We are committed to eliminating fatalities and accidents in our activities and working with others to drive safety improvements across our industry and beyond.

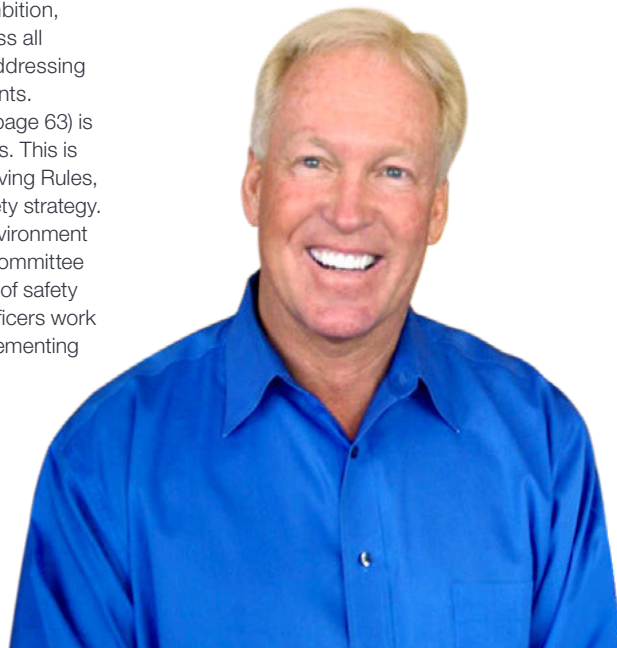
How we can achieve this

In moving towards a zero harm ambition, we embed a culture of safety across all operations, as a pre-requisite to addressing safety risks and eliminating accidents. Our Health and Safety Policy (see page 63) is applied across all Group companies. This is complemented by our CRH Life Saving Rules, which are a cornerstone of our safety strategy. The CRH Board and the Safety, Environment and Social Responsibility (SES) Committee monitors developments in the area of safety and our global network of safety officers work closely with our businesses in implementing policy and practice.



It's not about the individual but the collective culture which underpins safety at CRH and will drive our ambition of zero harm across all our activities."

Lee Cole
 Vice President, Environmental, Health and Safety,
 CRH Americas Materials



Our ambition is to play our part in addressing climate change as we strive for carbon neutrality along the cement and concrete value chain by 2050

Our target:
 33% CO₂ reduction to 520kg net CO₂/tonne cementitious product by 2030, compared with 1990 levels

Why this is important to CRH

As the world's leading building materials company, we are committed to helping ensure we have an industry that is at the forefront of sustainability and climate protection. Our CO₂ emissions reduction roadmap is a science-based target (SBT) at a 2° scenario that has been independently verified to be in line with the Paris Agreement objectives. As society comes to terms with the urgency and challenges of climate change, we believe we have a responsibility to continue to create high-performance, climate-friendly materials and products to meet the future needs of the world.

How we can achieve this

As we strive for carbon neutrality along the cement and concrete value chain by 2050, we will continue to focus on reducing our carbon footprint, supporting a circular economy and increasing research into carbon capture and storage technologies.



We are proud that we are embracing and leveraging the Paris Agreement with our science-based target and our ambition to achieve carbon neutrality along the cement and concrete value chain by 2050."

Seamus Lynch
 Managing Director, CRH Group Technical Services



CRH 2030 ambitions - continued



People



Inclusion and diversity is about far more than metrics – it is about the entire Group coming together to achieve a shared vision and deliver better performance.”

Soma Mohanty Garg
 Chief Inclusion & Diversity Officer

Our ambition is to be a business where everyone has the same opportunity to develop and progress

Our target:
 33% female senior leadership by 2030

Why this is important to CRH

Now more than ever, we live in a world where inclusion and diversity are high on the agenda. The benefits of an inclusive and diverse workforce are clear to our business leaders, bringing new ideas, perspectives and ways of engaging with people. This will transform relationships across the value chain and allow us to access new markets. Because of this, it is vital we understand the barriers to inclusion and diversity faced by our employees and the people we work with and that we create change that benefits us all.

How we can achieve this

We acknowledge that our industry has not traditionally attracted many females and it is a challenge that we need to address. We are learning from experience both within and outside our organisation and we are establishing strong governance structures to develop a more diverse workforce. As we deliver our vision and work towards our 2030 target, our inclusion and diversity strategy, overseen by our Global Inclusion & Diversity Council, will focus on four key areas: Communication; Education & Awareness; People & Practices; and Data & Measures.




Customers



Our customers are progressive, and look towards CRH to provide the innovative and sustainable building solutions that they need to contribute to the built environment of the future.”

Diego Santamaria Razo
 Director, Innovation Centre for Sustainable Construction

Our ambition is to offer more solutions that contribute to a sustainable built environment

Our target:
 50% revenue from products with enhanced sustainability attributes by 2025

Why this is important to CRH

We acknowledge the challenge in delivering sustainable products and solutions that enhance the customer’s vision for sustainability and stand up to the exacting standards of modern construction. Our operating companies focus on meeting the needs of our customers and anticipating and responding to market drivers.

How we can achieve this

Through a continued focus on innovation, research and development and communication of the scale and benefits of our sustainable product ranges, we believe we will meet our target and our ambition. As a result, we will contribute to delivering the UN SDGs, as well as lowering the carbon footprint of our activities and products.



CRH 2030 ambitions - continued

Additional sustainability targets

We have a long history of setting and achieving ambitious targets that assist the Group in the delivery of long-term value and growth.

As we move into a new decade, we have set even more ambitious Group-level targets. Further to our CRH 2030 ambitions discussed on pages 11-12, we have set additional sustainability targets as a means of continuously improving our high standards of performance and management.

These additional targets, identified through our recent materiality assessment (see pages 15-16) are linked to our six sustainability priority areas and reflect changing industry association expectations, as well as those of various investors and rating agencies.

To drive transparency and performance, we will be measuring our progress and holding ourselves to account. We've learnt from our journey to date that collaborating with partners and listening and responding to our stakeholders ensures CRH plays a leading role in shaping a sustainable future.

CRH 2030 targets



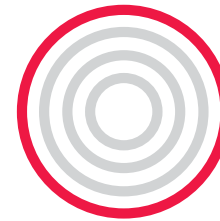
Zero
fatalities,
in any year



33%
CO₂ reduction to 520kg net
CO₂/tonne cementitious
product by 2030, compared
with 1990 levels



33%
female senior
leadership
by 2030



50%
revenue from
products with enhanced
sustainable attributes
by 2025

Additional sustainability targets



100%
Minor emissions monitoring
at clinker plants



100%
of relevant locations in sensitive areas
for biodiversity to have a Biodiversity
Management Plan by 2030



NO_x, SO_x, Dust
Air emissions reduction at cement plants



95%
of relevant companies to have waste
recycling programmes in place by 2030



100%
of relevant companies to have water
management plans in place by 2030



95%
of relevant employees to receive Code of
Business Conduct (CoBC) training in a
reporting year



100%
of suppliers compliant with
Supplier Code of Conduct



100%
of companies to have Community
Engagement Plans by 2030

Supporting the UN Sustainable Development Goals

Making a positive contribution

The UN SDGs seek to address the world's biggest challenges by setting a roadmap for organisations and industries to make the changes needed to prepare our society for the future.

As the engine of economic growth and a source of finance, businesses are increasingly seen as having key roles to play in the implementation and achievement of the SDGs. With regard to the role of our industry, a future successfully incorporating the SDGs will rely heavily on innovations across areas such as sustainable cities and communities, climate-smart industries and responsible consumption, all of which can be positively impacted by building solutions.

While we contribute to many of the 17 SDGs, we believe it is more meaningful to report against the SDGs that are most material to our business and where we can have the greatest influence. Having investigated the detailed sub-goals behind each SDG and how they align with our business strategy and sustainability approach, we confirmed our four focus goals and the targets behind them in which we can effect the most change.

We are committed to building and strengthening the wide range of partnerships needed to support these goals. We will further align our processes with the SDGs and encourage all our businesses to take up this challenge.



Our focus sub-goals

- 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 supporting this goal

Increasing innovation and design across our activities and products to enable and inspire more sustainable construction and infrastructure. Read more about our sustainable products attributes on page 43.



Our focus sub-goals

- 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 supporting this goal

Providing specific infrastructure, technology, services and building solutions to support the overall optimisation of urban systems and create sustainable and resilient cities. Read more on page 8 about how we are contributing to the sustainable cities of the future.



Our focus sub-goals

- 12.2 Achieve the sustainable management and efficient use of natural resources
- 12.4 Achieve environmentally sound management of wastes throughout their life-cycle
- 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 supporting this goal

Increasing the use of alternative fuels and materials within our activities and products and ensuring that we use natural resources more efficiently to minimise waste and our environmental impact. Read more about our 'closed-loop' economy on page 45.



Our focus sub-goals

- 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

How we are supporting this goal

Reducing our CO₂ emissions through our science-based target at a 2° scenario that has been independently verified to be in line with the Paris Agreement objectives. Read more about our carbon reduction ambitions on pages 26-27.

Materiality assessment

Focusing on the issues that matter most

Stakeholders and investors are increasingly recognising the value of a company's impact beyond financial metrics. At CRH, we seek to engage with stakeholders to deepen our understanding of their needs and expectations. This helps us manage sustainability risks and opportunities in our operations.

To continue our journey towards taking responsible action, in 2019 a materiality assessment was carried out to find out more about perceptions of our approach to the environment and the society we live and work in. This process, which included desktop research, stakeholder engagement and data analysis, highlighted new and emerging sustainability topics for CRH and our stakeholders and provided an update on our progression from our previous materiality assessments.

The outcomes from this assessment allowed us to identify and define the material topics that should be elevated in our business strategy and reporting. Regular formal materiality assessments are part of the range of processes we use to identify the sustainability topics that are relevant to our business, society and stakeholders. These also include annual sustainability reporting by our operating companies to Group and review of topics raised through risk management processes (see page 55).

Assessment methodology

We contracted third-party sustainability experts to carry out our materiality assessment. We identified relevant stakeholders, taking into account our diversified business and geographic spread, including members of the executive leadership, senior management, employees, customers, suppliers, sustainability specialists, academics, government, non-governmental organisations (NGOs), environment, social and governance (ESG) agencies and trade associations.

We engaged with stakeholders through online surveys, telephone interviews and focus group sessions, testing a range of sustainability topics and asking them to rank the relative importance of each topic in relation to how they impact them, their community and their business. Stakeholders also had the opportunity to provide unprompted feedback.

The insights we gained from this process were extremely valuable and will help us manage future risks and opportunities across our operations. The process also enabled greater conversation with our stakeholders, further strengthening our relationships.

Identifying our material topics

The assessment identified 14 material topics considered most important to CRH and our stakeholders. While the topics were reflected in previous materiality assessments, the position of some changed, as did the grouping of sub-topics into material topics. The topic of energy and climate change moved among top priorities, as did the topic of employees. While always of high importance to CRH, these increased due to the growing external focus on climate and inclusion and diversity. In addition, a new topic of sustainability governance and advocacy emerged. Sub-topics in this area had previously been covered under business conduct.

How we defined our material issues



Materiality assessment - continued

Materiality matrix

Our materiality matrix communicates the outcomes of our 2019 assessment, highlighting our most material issues and their relative importance to CRH and our stakeholders.

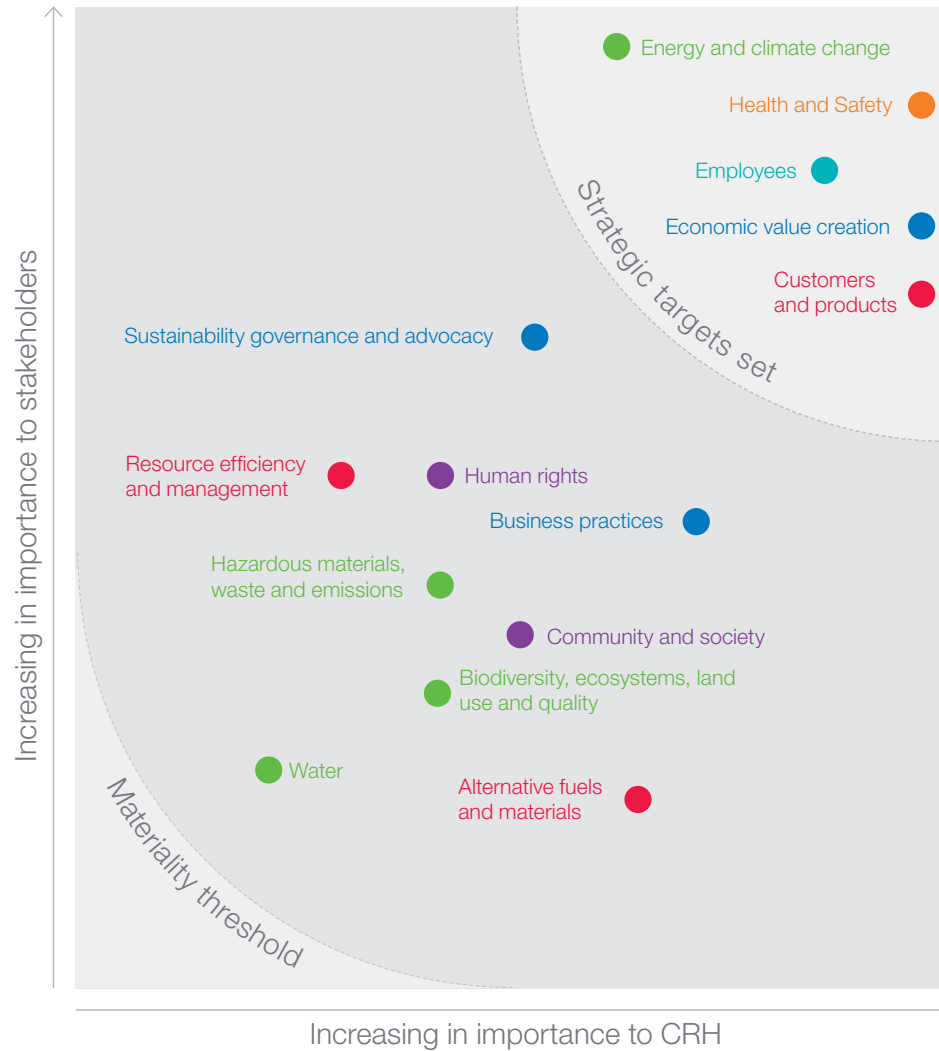
Considering regional and activity topics

Throughout the assessment process, the diversification of CRH in terms of business activities and geographies was addressed so that a global view could be reflected. Certain sustainability topics were shown to be more relevant for the different activities and geographies. For example, the topic of alternative fuels and materials was found to be more relevant for our cement businesses. The relevance of other sustainability topics did not vary significantly by either geography or business activity, including the topics of health and safety, employees, energy and climate change, economic value creation and customers and products.

Outcomes and next steps

The outcome of the materiality assessment provides a comprehensive and balanced understanding of material sustainability topics across our key focus areas. The top 14 material topics are shown in detail in our materiality matrix. The process has also enabled us to reiterate the UN SDGs to which our own sustainability actions are most closely aligned (see page 14). In addition, it ensured that our CRH 2030 ambitions (see pages 10-13) cover the topics that matter most to CRH and our stakeholders.

Looking to the future, we will monitor our progress in these areas and update annually in the Sustainability Report. We will use the outcomes to continuously improve our stakeholder engagement processes and to inform further integration with global initiatives, as we seek to deliver long-term value creation from sustainability.



Our key priority areas

Safety	
Environment	
People	
Customers	
Collaboration	
Integrity	

Materiality assessment - continued

Addressing sustainability topics across a diversified Group

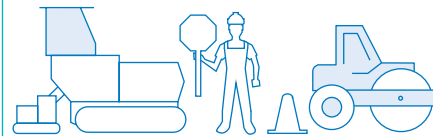
We significantly reshaped our business in 2019 into three integrated platforms of scale: Americas Materials, Europe Materials and a new global Building Products Division, ensuring CRH is well positioned to drive value above and beyond the sum of our individual businesses.

The prioritisation of material sustainability topics can vary across our Divisions. However, we will continue to leverage our global scale to meet the demands of economic growth, shifting demographics and sustainable development.

Americas Materials

Our Americas Materials Division is a vertically integrated supplier of building materials used widely in construction projects throughout North America. Considering the nature of our activities, our approach to safety is our number one priority, with other material issues relating to reducing emissions across our activities, increasing the use of alternative materials, energy supply and sustainable product innovation, as well as responding to changes in demand due to weather.

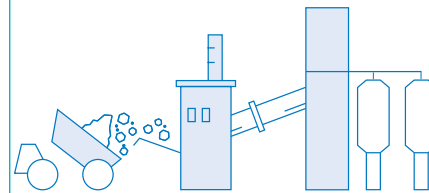
Through strong relationships with our customers, we have developed a deep market knowledge which helps to drive our superior performance. Implementing best practice and sustainable initiatives to address material issues not only benefits our employees and communities, but strengthens our competitive advantage, allowing us to better leverage talent and build strong regional leadership positions in local markets.



Europe Materials

Our Europe Materials Division is geographically balanced, with an extensive network in the strong and stable markets of Western Europe and a strong footprint in growing Eastern European markets. There is broad exposure to residential, non-residential and infrastructure sectors. The performance of Europe Materials is underpinned by interdependent factors, including fluctuating demand, government policy and regulatory changes, market capacity, weather conditions and energy cost.

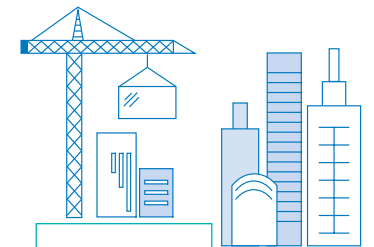
Many of our customers now have key buying criteria which involve understanding our sustainability performance and how we are addressing material issues across the various regions, such as safety, reducing CO₂ emissions, as well as making sure that we are performing well and constantly improving to meet customer needs.



Building Products

Our Building Products Division brings together related products businesses in North America, Europe and Asia Pacific to create a more simplified and focused business, better positioned to capitalise on opportunities presented by economic development, changing demographics, sustainability and other evolving trends in construction markets globally. Material issues include operational efficiencies, competitive markets, supply-side factors such as labour and construction cost inflation, as well as unpredictable weather conditions.

To address these issues, we continually focus on product innovation and development, working with specialist end-users to develop environmentally sound design-solutions and practices that will assist us in the futureproofing of our businesses. As well as an ongoing focus on safety, we are very active in the discussion and debate around advancing the sustainability agenda through trade associations participation and interaction with government agencies, helping to work as a bridge between industry and the communities that we work in.





We work in a dynamic industry with many innovative products and on a variety of major construction projects - but we must never forget the safety risks that are present every day, from explosives used in our quarries, to hot materials in our cement plants, to product delivery to customers. We can never be complacent in our daily focus on safety."

Michael Keating
HSE Director, CRH Europe



Safety



Leading with our culture of safety	19
Protecting our workforce	20
Tracking safety performance	21
Developing safe behaviours	22
Promoting health and wellbeing	23

Tarmac, part of our Europe Materials Division, is taking part in an innovative trial to become the first company in Europe to introduce lifting robotics to a construction site. Known as a Material Unit Lift Enhancer (MULE), the robotic arm is a lift assist device designed to enhance productivity and minimise health and safety risks, improving working conditions for employees and contractors working on construction sites.



Safety - continued

Leading with our culture of safety

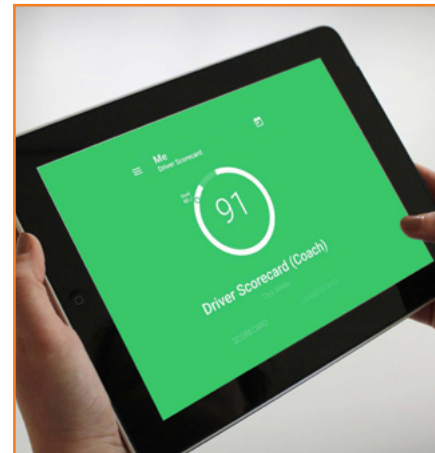
At CRH we put safety first, as demonstrated by our values and our declared ambition to achieve zero harm. Our culture of safety sets us apart and is driven by employees and management at every level as we work to achieve our common goal – that nobody gets hurt at work.

Business leader engagement around safety is essential to building a leading safety culture. Our leaders, therefore, are accountable for achieving a culture of safety excellence at every location, with clear lines of responsibility through operational management up to the Chief Executive, the Safety Council, the Safety, Environment & Social Responsibility (SESR) Board Committee and ultimately, the CRH Board.

The CRH Board and SESR Committee monitor developments in the area of safety and receive regular safety updates covering policies, action plans, and actions required in relation to any serious incidents. They are supported by a strong safety management structure, with each operating company having either a full-time or part-time Safety Officer, depending on the scale of the business. Our global network of safety officers collaborate with regional and Group specialists. Together, they work closely with our businesses in implementing policy and practice and support company health and safety programmes and processes, including contractor management and Employee Assistance Programmes (EAP).

Our employees are guided by our recently updated Health and Safety Policy (see page 63), which is applied rigorously across all our operating companies. It is complemented by the industry-leading CRH Life Saving Rules, designed to support our global focus on eliminating fatalities. Excellence in safety performance is recognised through internal safety award schemes at business unit and regional levels.

Developing a robust safety culture is a continuous focus. We are well practiced at integrating acquisitions. We have robust processes in place to address the often-significant challenges in countries and regions that traditionally have poorer safety records.



With nearly 10,000 employees in the North Division of our Americas Materials Division, many of whom operate company vehicles on public roads every day, it is imperative that these drivers are equipped with the highest level of safety training. In 2018, the North Division combined the roll out of our defensive driver training programme and the installation of telematics to build a culture of safe driving on and off site. The programme, which focuses on improving driver and general public safety on the roads and reducing vehicle incidents, was initially met with reservations from some employees. However, with the use of regular feedback on driving behaviour and training, drivers are now seeing the programme as an opportunity to improve performance. The camera systems have also helped drivers show where incidents were the result of unsafe third party actions. Overall this programme has resulted in a significant reduction in the vehicle incident rate compared to previous years.

Our stakeholders tell us:



Our industry has many safety risks. CRH is a true leader in protecting not only the health and lives of its employees, but all those who labour in construction. CRH has made substantial investments in technologies to protect roadway construction workers from being struck by errant drivers. Sharing this experience has helped the entire industry take a leap forward."

Brad Sant

SVP, Safety and Education, American Road & Transportation Builders Association (ARTBA)

Health and safety

What are the challenges and how are we managing them?

There are multiple safety hazards associated with our industry – from kilns operating at over 1,400°C, to working at height, operating heavy machinery, using mechanised processes and managing contractors. Because of this, health and safety has long been a strategic priority for CRH and we will continue to focus on the promotion of health, safety and wellbeing, together with the elimination of fatalities, accidents and recordable incidents.

94%

In 2019, 94% of Group locations were accident-free.

Safety - continued

Protecting our workforce

We demand the highest safety standards in everything we do. To achieve this, we implement appropriate safety management systems at every one of our 3,100 locations. We continue to raise awareness of our safety strategy and CRH Life Saving Rules across our organisation to create a safer work environment for all.

Safety management systems

Our businesses implement safety management systems, as relevant to their business and region. Safety management systems apply to all work undertaken at our locations or under our control. In Europe, 43% of locations are certified to OHSAS 18001/ISO 45001, with the remainder using different systems. In the US, we comply with the safety systems set by the relevant safety authority. The Group 'Construction Project Safety Protocol' and 'Construction Safety Manual' continue to be integrated into day-to-day operations at relevant operating companies to address the challenges that can occur during construction projects on our sites.

We also implement a global safety audit programme. In 2019, 86% of our 3,100 locations were audited for safety by either internal safety managers or external agencies.

Managing risks

We focus on eliminating hazards at source, carefully planning our activities, identifying potential hazards through risk assessment, managing risks and investing in necessary areas for improvement. A hierarchy of control approach is followed, with the preferred control being to eliminate the risk. All breaches of safety procedures are subject to investigation and potential disciplinary action.

Over the last five years we have invested over €220 million in all aspects of health and safety. In 2019, as well as our continued focus on contractor safety, we invested further in transport and mobile plant safety, such as machinery guarding, improvements in platforms and fall protection measures, electrical system upgrades, pedestrian/mobile plant segregation and noise and dust reduction initiatives.

€220 million

Over the last five years we have invested over €220 million in all aspects of health and safety.

Communicating our safety message

Communicating our safety message is the most important factor for keeping our workers safe. The company-wide CRH Life Saving Rules are supported by various region-specific communication programmes that use a variety of channels to reach employees, including video, social media, safety alerts and toolbox talks to raise awareness of safe working practices.

We work with our peers to create industry-wide safety standards. As well as influencing the safety and processes of contractors and suppliers, we help to lead regional and global discussions through our membership of the World Business Council for Sustainable Development (WBCSD) and Global Cement and Concrete Association (GCCA), as well as regional industry associations including CEMBUREAU, the European cement association, and the National Asphalt Pavement Association (NAPA) in the US. Our work through these partnerships has had a very positive impact on the industry's approach to increasing global safety standards.

Monitoring the effectiveness of our safety systems

We carry out a comprehensive annual review of the health and safety performance of all Group companies. We convey our safety performance throughout the Group through monthly reporting and safety calls. Review findings form an agenda item for the SESR Committee and the Board and are fed back to our operating companies through our network of safety officers and at safety best practice meetings.

As we move beyond traditional methods of measuring safety, we use a range of leading indicators including metrics around employee engagement in safety, near miss reporting, risk reduction initiatives and contractor safety checks.

Safety management 2019

(% Group companies)



Employee safety management 2019

(% Group companies)



Oldcastle APG and Oldcastle Infrastructure, both part of our Building Products Division in the US, collaborated to improve and standardise machine specific lockout/tagout/tryout (LOTOTO) procedures. This involved the roll-out of BradyLink360, a web-based software application and mobile app, which has allowed Oldcastle APG and Oldcastle Infrastructure to produce safety procedures with embedded pictures designed to increase clarity of the LOTOTO procedure. The system ensures all steps are taken before employees enter potentially dangerous work areas.

Safety - continued

Tracking safety performance

Achieving our ambition of zero harm is an ongoing challenge. We continuously track safety performance in real time and through weekly, monthly and annual reports. This enables us to quickly identify risks and continuously improve personal and process safety. We share lessons learned, with the goal of preventing future accidents.

Eliminating fatalities

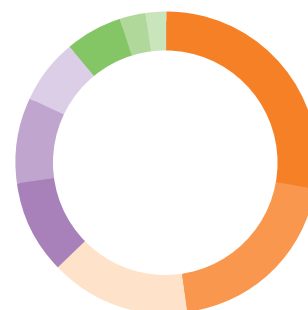
Eliminating fatalities is our highest priority, as reflected in our CRH 2030 ambition of zero fatalities in any year and our zero harm focus. The mandatory CRH Life Saving Rules focus on the top causes of fatalities including mobile plant movements, being struck by falling objects, failure by individuals to abide by established plant isolation (Lock Out/Tag Out) procedures and falls from height.

We had zero employee or contractor fatalities to report in 2019. This is the first year since 2015 that there were zero employee fatalities, and the first year since 2004 that there were zero contractor fatalities. However, we deeply regret that one third-party fatality occurred in 2019. We extend our sincere sympathies to their family. We independently investigate all fatalities and share the lessons learned as we focus on our CRH 2030 ambition of zero fatalities in any year. Our focus is on ensuring appropriate actions are taken immediately and the lessons to be learned are integrated into our safety system, helping to inspire further improvements across the Group.

Reducing accidents

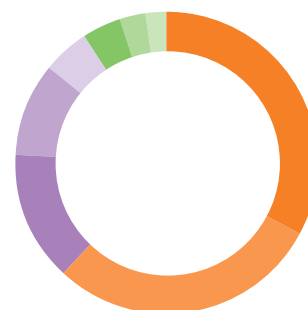
Our accident frequency rate and severity rate have reduced by an average of 10% and 7% respectively per annum over the past decade, representing an ongoing improvement. In 2019, 94% of locations recorded zero accidents, similar to the previous year. Accident trends have reduced in 2019 with an accident frequency rate of 1.3 lost time accidents per million man-hours. The main causes of accidents in 2019 were: slips, trips and falls on the same level; falling objects or moving objects; and other or multiple causes. The most frequent injuries were to the arms, hands, legs and feet.

Accidents by cause 2019



- Slips, trips, falls on the same level28%
- Falling objects or moving objects20%
- Other or multiple causes15%
- Lifting, overload or overexertion10%
- Falls from height9%
- Caught in or by vehicles, mobile plant7%
- Caught in or by fixed machinery6%
- Burns by heat or chemicals3%
- Power tools or electrical equipment2%

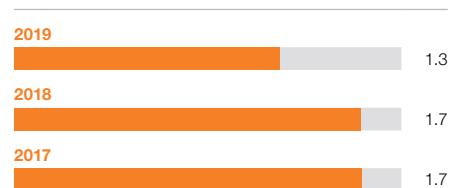
Accidents by injury type 2019



- Arms, hands33%
- Legs, feet29%
- Upper body, shoulder14%
- Back10%
- Multiple body parts5%
- Head, neck4%
- Unspecified or unknown3%
- Eye2%

Group frequency rate

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



Zero accident location

(% Group companies)



Safety - continued

Developing safe behaviours

Our commitment to safety applies equally to our employees, contractors, customers and suppliers. We expect everyone working at our operating companies to understand the safety risks associated with their role. Training empowers people to make safe decisions based on knowledge, awareness and confidence that they are doing the right thing.

Health and safety training

We have developed a holistic approach to safety training using customised training techniques including on-the-job training, technology platforms such as virtual reality and classroom training, delivered in all relevant languages. Our integrated frontline leadership programmes and senior management development programmes also include strategic safety modules. In 2019, employees completed a total of 1.8m hours of health and safety training, an average of 23.2 hours per employee across all categories.

Empowering employees

We have regular safety meetings and in 2019, 76% of employees were involved in formal joint management/worker safety dialogue to discuss ways we can improve safety. Safety performance is incentivised where appropriate through recognition and in bonus structures. However, everyone working at CRH has the authority to stop unsafe work on a no-reprisals basis.

Safety is also an integral part of discussions with trade unions, covering topics such as safety initiatives and ongoing fatality elimination actions. The CRH hotline is available for employees to report any safety concerns (refer to page 56 for more information).

238,400

Over 238,400 contractor transport safety checks were completed in 2019.

1.8m

Employees completed 1.8m hours of health and safety training in 2019.

Contractor safety

We employ large numbers of contractors to carry out many different functions, from specialised work to supplementing labour requirements and delivering products. This presents a challenge as we do not have direct control over contractor processes, an issue that is common across our industry.

Robust safety management systems across our businesses require all contract employees to be competent and have the relevant training and qualifications to carry out the job safely. In 2019, we completed over 238,400 contractor transport safety checks to ensure competence and appropriate supervision.

Our 'no-compromise' approach to contractor safety includes disciplinary measures where performance falls below expected standards. In 2019, 1,880 contractor disciplinary actions were recorded and addressed, demonstrating our robust approach.

Customer safety

We continuously focus on delivering high quality, safe products to our customers. Our strong reputation and performance in safety has won us contracts from customers that integrate high standards of safety into their own tender assessments. We share safety information and best practices with our customers to support them in developing their own safety processes.

Supplier safety

The safety of our suppliers is of the upmost importance to CRH. When suppliers enter our company locations to deliver products they are expected to comply with our safety requirements. Ensuring rigorous safety standards within our supply chain is more difficult to influence. However, our procurement processes, including monitoring, risk analysis and third-party auditing, ensure that supplier safety is a core part of our supply chain management (see pages 50-51 for more information).

Safety training

(Number of hours per employee)



Contractor site induction

(% Group companies)



Europe Materials North Danube Cluster comprising Austria, Hungary and Slovakia has launched a new Care & Share campaign to engage employees on safety. The programme aims to ensure consistent training across the cluster on our CRH Life Saving Rules and provide our employees with the knowledge around risks and the control measures needed to prevent serious injuries.

Safety - continued

Promoting health and wellbeing

The provision of a healthy and safe environment is important for our workforce. We have an opportunity and a responsibility to raise safety and welfare standards and keep people out of harm's way.

Occupational health

As well as promoting general health and fitness, we manage specific health risks associated with the building materials industry. 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.

By monitoring the health of our workforce, we help employers and employees understand the potential hazards people may be exposed to within our industry, allowing us to continually develop and promote effective health and safety procedures. We work with industry bodies to develop global best practice standards across the building materials industry.

We actively assess and mitigate potential health risks in the workplace as part of our safety systems. Workplace monitoring of noise, dust and RCS is ongoing across the Group, in accordance with best practice and local or national requirements. A very low incidence of occupational illness cases were recorded in 2019.

91%

In 2019, 91% of Group companies offered assistance with employee health insurance.

93%

In 2019, 93% of Group companies had health and wellbeing programmes in place.

Employee wellbeing

We implement employee health and wellbeing programmes across our operating companies, providing incentives, tools, social support and strategies on physical and mental health. These programmes help our employees to maintain health and general wellbeing.

In 2019, 93% of Group companies had health and wellbeing programmes in place. These focused on issues such as smoking cessation, stress reduction, diet, nutrition, fitness, weight management, vaccinations and drug and alcohol awareness. In addition, 91% of Group companies also offer assistance with employee health insurance.

Workers can access these programmes in different ways, depending on the region in which they work. These include face-to-face consultation with a medical professional, through a confidential helpline, and through an online service.



Tarmac, part of our Europe Materials Division in the UK, has been a Business Champion of the charity 'Mates in Mind' since 2017. Through this partnership Tarmac has rolled out a training programme to raise awareness of mental health issues. Approximately 100 employees are currently being trained as Mental Health First Aiders (MHFA) to provide front-line support to colleagues having problems with mental health. Tarmac also provides support through its Employee Assistance Programme (EAP), a free, confidential, independent helpline available 24/7 to all employees and immediate families covering a wide range of topics, not just in relation to mental health itself, but also the problems that can lead to mental health issues.

Addressing mental health in the workplace

As an industry, we have placed a lot of effort on managing safety issues, however it is important that we also focus on the mental wellbeing of our employees and contractors. It is recognised that within the construction sector broadly, which tends to be male-dominated, there can be challenges to wellbeing, including depression, anxiety and other forms of mental illness.

At CRH, we aim to take the lead and proactively talk about mental health issues at our locations. We encourage employees and contractors to place a focus on their mental wellbeing and to feel comfortable in speaking to someone should they find themselves in difficulty. Many of our operating companies are providing mental health support for employees. For example, Tarmac, part of our Europe Materials Division in the UK, is a Business Champion of 'Mates in Mind', a charity set up in partnership with the Health in Construction Leadership Group and the British Safety Council to tackle the stigma associated with talking about mental health in the construction industry. Together with Mates in Mind, Tarmac has been rolling out a training and awareness programme for all employees and key managers to give them a better understanding of mental health issues, how to spot the signs of someone suffering with mental health problems and how to have a conversation about mental health.

Environment



Investing in environmental management	25
Focusing on climate change	26
Targeting CO ₂ emissions reduction	27
Manufacturing lower-carbon cement and concrete	28
Innovating for carbon efficiency	29
Increasing energy efficiency	30
Managing air emissions	31
Reducing waste	32
Protecting water resources	33
Enhancing biodiversity	34
Preserving natural and cultural heritage	35

OPTERRA, part of our Europe Materials Division, supplied the concrete for the green bridge structure of the Bundesstraße motorway project in Southern Bavaria. This project, which runs through a forest area, includes the construction of the motorway as well as 14 additional structures. The green bridge, completed in May 2019, is intended to serve as an aid to wild animals, enabling them to cross the busy motorway, thus reducing the impact of the project on surrounding biodiversity.



The transition to a lower-carbon society will require significant investment and changes in consumer behaviour. As a leading industrial player, we are committed to playing our part in delivering a carbon neutral future."

Tino Villano
Environmental Manager, CRH Europe



Environment - continued

Investing in environmental management

We strongly believe in leading by example and implementing environmental best practices to meet stakeholders' increasing expectations around sustainability. By mitigating against our potential impacts on climate and the environment, we are meeting our responsibilities and helping to preserve the natural resources that we depend on.

Managing our environmental performance

We have a responsibility to implement strong environmental management to drive continuous improvement, minimise our impacts and ensure the consistent availability of resources. To ensure a coherent approach, we apply our Environmental Policy across all operating companies and new acquisitions.

Our Environmental Policy (see page 63) ensures that we maintain high standards of environmental protection across our organisation and demonstrates our commitment to implementing and exceeding best practices concerning environmental issues.

Location managers are accountable for the effective day-to-day implementation of the Policy across all our operating locations. They are supported by a network of experienced Environmental Liaison Officers who engage with each other and regional and Group specialists to share best practice and experience.

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.

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.

€177 million

In 2019 our total environmental expenditure was €177 million on areas such as carbon reduction projects and resource efficiency.

Strengthening environmental management

The building materials industry is, by nature, an environmentally intensive sector and subject to stringent laws, regulations and relevant standards to minimise negative impacts on the environment. To comply with these standards, we require all our operating companies to establish appropriate environmental management systems (EMS), in line with local environmental permit requirements.

In 2019, c. 900 Group locations were certified to ISO 14001 EMS standards and 53% of our subsidiary clinker plants were ISO 14001 certified. Our target is for 90% of relevant businesses to have a permitted or certified EMS by the end of 2020.



The Ash Grove Cement Seattle Plant, part of our Americas Materials Division, was awarded the 2019 ENERGY STAR® by the US Environmental Protection Agency for superior energy performance. This award is the distinguishing mark of energy efficiency for cement plants in the US and recognises Ash Grove's efforts to manage energy use and protect the environment through energy efficiency.

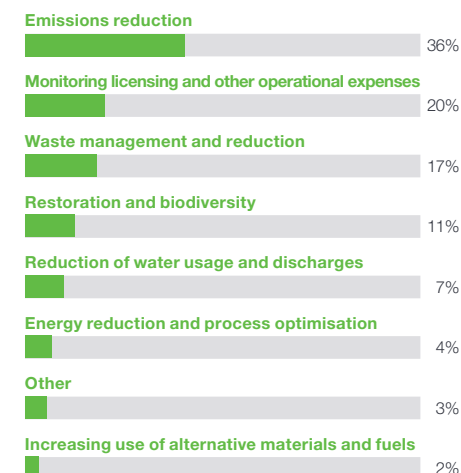
Ensuring compliance

Our policy is to address and resolve compliance issues as soon as they are discovered and we are pleased to report continued excellence in environmental compliance in 2019. During the reporting year, fines totalling €197k were paid to regulatory authorities. These related to a number of minor issues, none of which caused significant environmental damage.

Investments

We continuously invest in technology and efficiency projects across our operating companies to enhance environmental performance, as well as investing in the environmental expenditure element of major capital investment projects. In 2019, our total environmental expenditure was €177 million in areas such as carbon reduction projects, resource efficiency systems and water management equipment.

Significant areas of environmental expenditure 2019



Environment - continued

Focusing on climate change

Climate change is arguably the most pressing issue facing humanity, with all nations being urged to meet the goals of UN SDG 13 Climate Action. As a leading building materials business, we have a responsibility to meet the demands for ever-expanding sustainable cities while contributing to a low-carbon circular economy.

Our integrated climate approach

Addressing climate change is a cornerstone of our approach to sustainability and we are proud that we have exceeded our 2020 climate commitments. Leading on from this, we have developed our post-2020 targets and CO₂ roadmap with a focus on our carbon-intensive cement activities. Our CO₂ emissions reduction roadmap is a science-based target (SBT) at a 2° scenario that has been independently verified to be in line with the Paris Agreement objectives (see page 11 for more information).

We recognise the contribution many of our products can make to carbon emissions reductions from buildings. This includes harnessing the thermal mass property of concrete for improved building energy efficiency and the use of building envelope solutions, such as high-performance glass and glazing products that incorporate innovative thermal break technologies for superior thermal performance, while providing essential daylight and ventilation.

Climate risk disclosure

In line with the progress towards our 2030 ambitions and targets (see pages 10-13), we are assessing the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD), which are intended to develop consistency in climate risk disclosure. As a means of further developing our disclosure roadmap, we are participating in the WBCSD and TCFD Preparers Forum for the construction sector to review current levels of disclosure and develop guidelines for the sector with respect to TCFD reporting.

48%

Of our direct CO₂ emissions, 48% were covered by an emissions trading scheme.

Carbon pricing

Carbon pricing is a mechanism growing among countries and businesses which puts a price on carbon emissions as a means of reducing emissions and driving investment into lower-carbon alternatives. Of our direct CO₂ emissions, 48% were 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.



Tarmac, part of our Europe Materials Division, is a participant in LEILAC, Low Emissions Intensity Lime and Cement, a European Union Horizon 2020 project. This project aims to enable Europe's cement and lime industries to reduce emissions dramatically while retaining, or even increasing, international competitiveness. LEILAC involves developing a breakthrough calciner that aims to directly separate and enable the capture of 95% of the CO₂ released from limestone.

Our stakeholders tell us:



To help companies disclose climate-related financial risks and opportunities, WBCSD and TCFD have convened “Preparer Forums”, including the Construction and Building Materials Preparer Forum. Representing key players in the value chain, including CRH, Forum members are exploring the ways in which companies can contribute collectively to the objectives and recommendations of the TCFD.”

Lois Guthrie
Director
Redefining Value, World Business Council for Sustainable Development (WBCSD)

Energy and climate change

What are the challenges and how are we managing them?

Reducing direct emissions is a challenge for CRH due to the nature of our activities and the current limited availability of alternative materials and fuels. To address this, we have set our 2030 CO₂ reduction ambition (see page 11 for more information). Meeting this ambition will require ongoing investment in the drivers of carbon reduction, such as increasing the use of alternative fuels and materials, improving energy efficiency, increasing innovation and collaboration, as well as investments in low-carbon technologies.

Environment - continued

Targeting CO₂ emissions reduction

We have a long and successful history of meeting ambitious targets for reducing CO₂ emissions from our activities. Looking to the future, our ambition is to play our part in addressing climate change as we help to deliver a more climate-resilient world.

Reducing emissions

In 2019, we exceeded our 2020 CO₂ specific net emissions reduction commitment with a 26% reduction to 560 kg CO₂/t cementitious product. We are now committing to a 33% reduction in specific net CO₂ emissions to 520kg CO₂/t by 2030, compared with 1990 levels (777kg CO₂/t). This commitment covers wholly owned cement plants in Belgium, Brazil, Canada, Finland, France, Germany, Ireland, the Philippines, Poland, Romania, Serbia, Slovakia, Spain, Switzerland, the United Kingdom, United States and Ukraine, which were owned by CRH in 2019. You can read more about our CRH 2030 CO₂ reduction target on page 11.

Improving our processes

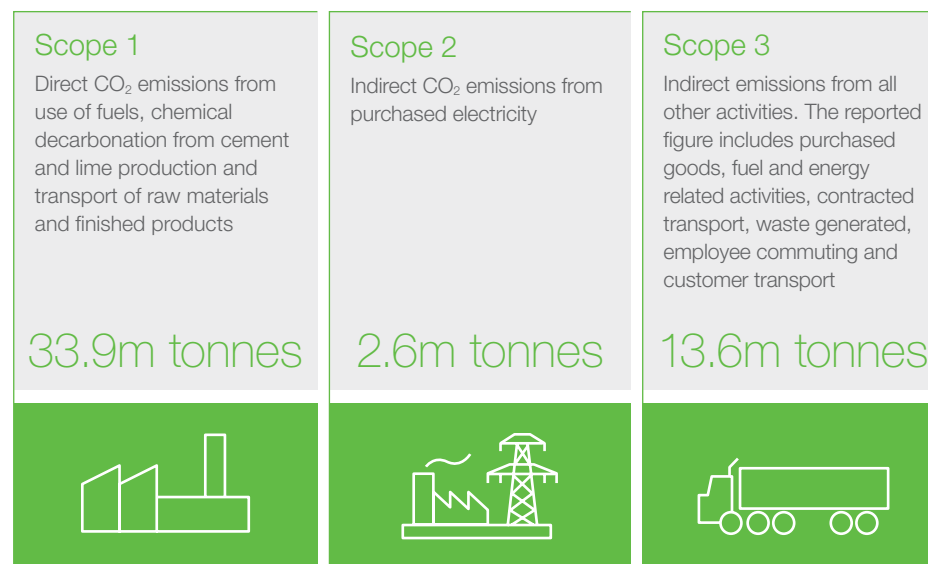
Our total Scope 1 CO₂ emissions in 2019 were 33.9m tonnes (2018: 35.4m tonnes). One of our top priorities is to continually improve our production processes to reduce our carbon footprint. Our main source of CO₂ emissions is our cement and lime processes, which accounted for 97% of our direct CO₂ emissions in 2019. By increasing the energy efficiency of our cement kilns, using alternative fuels and reducing clinker-to-cement ratios, we can reduce our carbon footprint and work towards achieving our CRH 2030 ambitions.

1.6m

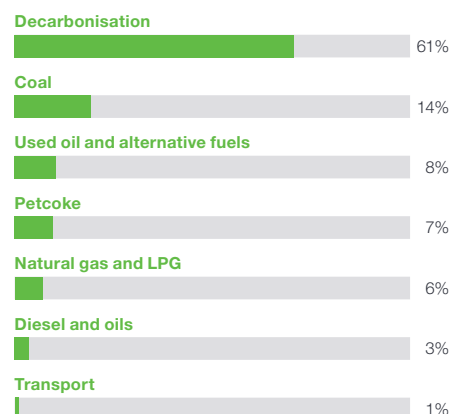
From our plants covered by our emissions reduction target, we prevented 1.6m tonnes of CO₂ emissions in 2019.

2019 CO₂ emissions

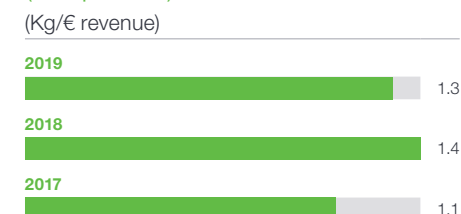
We report on our CO₂ emissions in line with the Greenhouse Gas Protocol developed by the World Resources Institute and the WBCSD



CO₂ emissions by source (Scope 1) 2019



CO₂ emissions per unit revenue (Scope 1+2)



Environment - continued

Manufacturing lower-carbon cement and concrete

Producing lower-carbon cement and concrete is not only about developing new technologies – it is also about making established technologies more efficient. We have the knowledge and experience to recover energy from alternative fuels and increase the volume of co-processing materials from other sectors in our cement plants to overcome challenges and support the transition to a circular economy.

Alternative raw materials

Waste materials and by-products from other sectors serve as valuable raw materials to replace a portion of the finite raw materials or clinker used in our cement manufacturing. These co-processing materials currently include fly ash, ground granulated blast-furnace slag (GGBS) and quarry overburden. For example, EQIOM, part of our Europe Materials Division in France, receives inert wastes from construction sites to be used as alternative raw material or fuel within cement production. It is estimated that, through these actions, EQIOM could divert up to 75,000 tonnes of inert material annually from landfill by 2026.

In 2019, we used a total of 8.7m tonnes of alternative raw materials in our subsidiary cement plants. Our ambition is to further reduce our clinker factor (the proportion of clinker in each tonne of cement) through increasing our use of alternative materials. In some cases, we are limited by market and functional requirements and the availability of alternative materials. However, we are continuously working to overcome supply-side barriers and to optimise clinker mineralogy to improve product quality and further the development of blended cements.

8.7m

We used 8.7m tonnes of alternative raw materials in our cement plants in 2019.

48%

In 2019, alternative fuels provided 48% of total energy consumption for our cement plants in the European Union.

Alternative fuels

By substituting traditional fossil fuels with alternative fuels we conserve natural resources, reduce CO₂ emissions, deliver financial efficiencies and support the circular economy. CRH is a leading user of alternative fuels. Using alternatives to fossil fuels is key to reducing the carbon intensity of cement production. Alternative fuels typically used by our cement plants include solid recovered fuels (SRF), waste tyres, solvents, used oil and carbon-neutral biomass (meat and bone meal, wastewater treatment plant residue, rice husk, etc.).

Our efforts generated successful results in 2019, with 2.2m tonnes of alternative fuels used by our subsidiary cement plants, providing 33% of fuel requirements for our cement plants, an increase from 30% in 2018. In the European Union, alternative fuels provided 48% of total energy consumption in our cement plants.

However, there remain limitations in the availability of alternative fuels for cement production in some markets and we continue to work with our wider stakeholders to address these barriers.

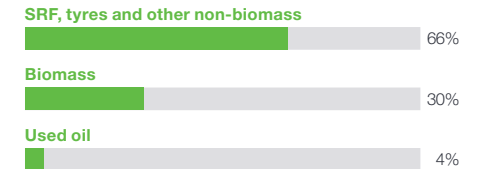
Alternative materials used in CRH cement plants 2019

(Total: 8.7m tonnes)



Alternative fuels used in CRH cement plants 2019

(Total: 2.2m tonnes)



North Danube Turňa Cement Plant, part of our Europe Materials Division, was awarded the EU Ecolabel Environmental Certificate from the Slovak Environment Agency for its sustainably produced cement. To be eligible for this award, the Turňa plant, which recently celebrated 50 years in production, had to meet demanding environmental criteria, including compliance with limits on energy intensity and emissions during production, as well as complying with the low-carbon requirements.

Environment - continued

Innovating for carbon efficiency

Innovation is at the heart of the sustainability agenda – it underpins the changes and efficiencies needed for a more sustainable future. Our businesses are striving to enable a low-carbon economy through solutions that reduce carbon emissions across our products and logistics.

Transport efficiencies

We continually strive to optimise transport logistics across our operating companies. This enables us to improve customer service and reduce energy and fuel consumption, air emissions and CO₂ emissions.

Of our transport of products by road, 23% is by our own trucks, with the remainder transported by contractors or customers. In 2019, we reduced our fuel usage in our own company trucks to 160 million litres (2018: 188 million litres). We have established fleet fuel reduction targets at our operating companies and we endeavour to make use of fuel-efficient rail, boat and barge transportation where possible.

We focus on developing initiatives in the areas of transport, fuel and modal efficiency. This allows us to reduce total distance driven, fuel consumption and ensure that we are selecting the most efficient mode of transport where practical. Overall, 64% of Group companies (representing 93% of total product delivered) have initiatives in place to optimise their transport use, through GPS route planning, load optimisation, fleet management, engine idling alerts and maximising back-loading.

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 has saved tens of millions of dollars each year and reduces the environmental cost of transport.

93%

In 2019, 93% of all transport was covered by operating companies that have transport initiatives in place.



As an alternative to road transport, Fels, part of our Europe Materials Division in Germany, are using a new hybrid train to transport materials. Unlike conventional diesel models, this hybrid train has the capacity to utilise the overhead electricity line, when it exists, meaning it can run on electricity as much as possible. This allows Fels to maximise the use of renewable energy, only resorting to diesel fuel if there is no overhead electricity source available. In addition, Fels uses its own rail network, connected to the German rail system, to transport more than 1.7m tonnes of materials annually.

Innovating for sustainable construction

The CRH Innovation Centre for Sustainable Construction (ICSC) provides expertise to identify and analyse global, market and construction trends and new growth opportunities to maximise the value of sustainable innovation. Its focus is on knowing our markets, sharing information, building knowledge and driving innovation across our businesses.

Together with governments, academia and partners in the cement and concrete industries, the ICSC is working to reduce the carbon cost of concrete production.

As a member of the European Cement Research Academy (ECRA), CRH is involved in projects to explore carbon capture, utilisation and storage (CCUS).

Looking ahead

No one substitute or technology will address the level of emissions reduction required by industry to meet the global challenges associated with climate change. To keep producing excellent products with minimal emissions, we need to embrace multiple breakthrough technologies, as well as our ongoing continuous improvements across our operations. For example, Finnsementti, part of our Europe Materials Division in Finland, is investing in the construction of a new blast furnace slag mill in Raahe. The new mill will produce carbon-free cementitious product, thereby promoting the circular economy and reducing the overall carbon emissions from cement production.

As we move into a new decade, carbon reduction, sequestration of carbon and supporting the transition to a circular economy will continue as priorities in our innovation programme.

Environment - continued

Increasing energy efficiency

Our ambition is to reduce our overall carbon intensity and find alternatives to replace the fossil fuels used in production. Energy efficiency and increasing the use of renewable energy are crucial to progress towards our ambition for carbon neutrality along the cement and concrete value chain and to securing reliable future energy resources for society.

Energy use

Our energy use in 2019 totalled 55.8 TWh of energy (2018: 60.3 TWh). The decrease in total energy is due to the divestment of our distribution business and improving efficiencies across all Group activities.

Almost three-quarters of our operating businesses (representing 99% of energy use) have now set energy reduction targets and programmes to actively reduce energy use. As a result of these efforts, we saved approximately 241 GWh of energy in 2019.

Energy management

Energy management is a key focus of our efforts towards continuous improvement. We spent over €1 billion on energy in 2019. In our most energy intensive activities, cement and lime, which together account for 80% of our energy use, performance teams are implementing detailed improvement roadmaps.

We are also introducing formal Energy Management Systems across other activities. In Europe, over 1,000 of our locations have certified ISO 50001 Energy Management Systems in place, with more than 67% of our materials operations in Europe certified in 2019. Such certification is not common in other regions of the world and we apply relevant systems as appropriate.

55.8 TWh

Our energy use in 2019 totalled 55.8 TWh, down from 60.3 TWh in 2018.

25%

In 2019, 25% of total electricity consumed across our operating companies was provided by renewable sources, up from 16% in 2018.

Renewable energy

Many of our operating companies actively pursue energy from renewable resources as part of their energy mix. In 2019, we purchased 1,849 GWh of 'green' electricity from external suppliers. We also provide materials for construction of renewable energy installations.

On-site electricity generation

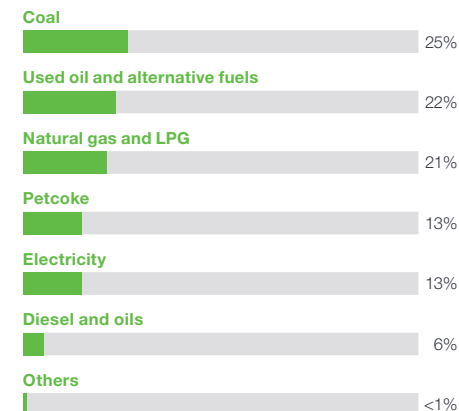
Electricity is a crucial element in the transition towards a lower-carbon world. A number of our companies partner with local utilities to install wind turbines on-site. These supply energy to their operations and feed the surplus to the grid. Other companies have made significant investments in solar panels, such as Filoform, part of our Building Products Division in the Netherlands, which has installed solar panels on the roofs of its buildings.



HALFEN Spain, part of our Building Products Division, has a long and successful partnership with a customer that builds wind turbines around the world. In 2019, HALFEN Spain supplied products for over 170 concrete precast towers in Spain, Mexico and Argentina, contributing to renewable energy resources and helping to increase energy efficiency in these parts of the world.

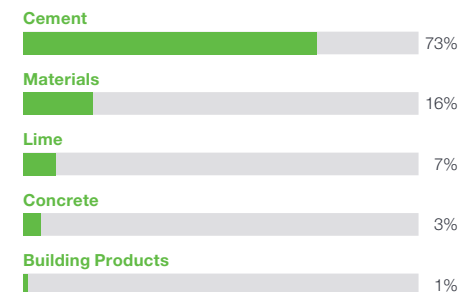
Energy use by source 2019

(% of total energy: 55.8 TWh)

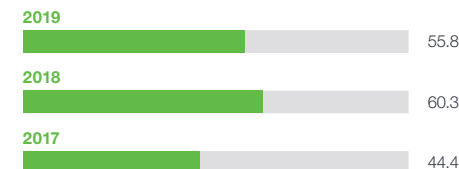


Energy use by activity 2019

(% of total energy: 55.8 TWh)



Energy Use (TWh)



Environment - continued

Managing air emissions

We are taking action to manage the emissions from our activities. Having achieved our 2020 emissions reduction targets, we will be setting further targets to improve our high standards of performance and management.

Understanding our impacts

The main air emissions that arise from our activities include dust, nitrogen oxide (NO_x) and sulphur oxides (SO_x).

Dust emissions may arise from point sources, such as cement production stacks and can also appear as fugitive emissions from quarrying, open storage of materials, transfer of materials through uncovered conveyors, and from loading and unloading operations. NO_x is formed during the combustion of fuels and SO_x from the oxidation of sulphur in raw materials, with only a small proportion from sulphur present in certain fuels.

Overall air emissions increased in 2019 as a result of full year reporting by acquisitions made in 2018 in our cement activity.

Total stack emissions to air over recent years are shown on pages 66-67. We also report on our minor air emissions from cement manufacturing, and the associated coverage rates of monitoring, on page 67.



In 2019, OPTERRA, part of our Europe Materials Division in Germany, installed a new exhaust gas purification system at its Karsdorf cement plant. The new filter technology, which includes a state-of-the-art AUTONOX® Low Dust System installed on the existing kilns, enables the cement plant to comply with the new limits for dust, ammonia and nitrogen oxide emissions introduced in Germany.

Mitigation measures

To control emissions, we invest in modern abatement technologies such as filter systems and ensure regular maintenance of equipment at our manufacturing operations. Measures to control fugitive emissions include building enclosures for material storage and conveyor belts, and paving plant areas and internal roads. We continue to reduce dust emissions through investments in new, more efficient filters and by improving the efficiency of operating plants.

Targeting reductions in air emissions

We are committed to reducing the impact of our air emissions, not only for the sustainability of our business, but for the continued protection of our surrounding environment and communities.

We have achieved our 2020 emissions reduction targets, with an 80% reduction in average clinker dust emissions and a 22% reduction in average clinker NO_x emissions compared with 2006 levels. We are setting CRH 2030 ambitions for emissions reduction (see page 13 for more information).

80%

We have achieved our 2020 target for an 80% reduction in average clinker dust emissions compared with 2006 levels.

22%

We have achieved our 2020 target for a 22% reduction in average clinker NO_x emissions compared with 2006 levels.

Our stakeholders tell us:

“

In Germany we have the lowest NO_x limit values in the European cement industry. As VDZ, we have accompanied the planning of a new waste gas treatment system based on SCR technology at the OPTERRA Karsdorf plant. Karsdorf is now very well positioned with this new abatement technology and is able to comply with the new limit values implemented at the beginning of 2019.”

Dr. Martin Schneider
CEO Verein Deutscher Zementwerke (VDZ)

Hazardous materials, waste and emissions

What are the challenges and how are we managing them?

Having achieved significant specific reductions in recent years, further contributing to cleaner air requires complex connections between capital expenditure, technical projects and stakeholder collaboration. In order to meet these challenges, we will continue to invest in air emissions abatement technologies and improve the efficiency of our operations, ensuring we meet our targets and look towards achieving our CRH 2030 ambitions.

Environment - continued

Reducing waste

We believe in supporting the principles of a circular economy and using our abilities to deliver solutions for process efficiency, as reflected in our focus on meeting the goals of UN SDG 12 Responsible Consumption and Production. We view waste as potential material which can begin a new cycle of production, and we are constantly striving to improve waste management across our value chain.

Reusing by-products

We practice waste minimisation wherever practical. This involves reducing the amount of waste materials generated, especially hazardous materials, and enhancing process efficiency.

Our activities give rise to a number of residual by-products, such as baghouse fines and overburden, as well as other internally sourced secondary materials, such as product off-cuts. We reuse these types of internal wastes in our production processes where possible. For example, we use baghouse fines in asphalt mixes, delivering significant cost savings and reducing the quantity of raw materials used in production. In 2019, we diverted 2.5m tonnes of by-products from waste streams through these measures.



With up to 40 million waste tyres produced every year in the UK, Tarmac, part of our Europe Materials Division in the UK, has created an innovative asphalt mix using granulated rubber as a means of recycling end-of-life tyres into roads. As part of its commitment to the circular economy, Tarmac has estimated that it will be possible to reuse up to 750 waste tyres for every kilometre of road surfaced with this new material.

Managing waste

We are dedicated to complying, as a minimum, with all regulations concerning the safe and responsible management of waste materials. When waste from our production processes cannot be recycled internally it is sent to licensed facilities for recycling or final treatment.

During 2019, 80% of the 2.4m tonnes of waste generated by our operating companies was externally recycled.

The remaining waste from production processes is sent for incineration or landfill. A small number of Group companies are permitted to landfill waste on-site and these sites are operated strictly in line with permit requirements and reviewed on an annual basis. Further, all Group companies take extensive precautions to prevent unauthorised waste disposal.

Looking ahead

Developing technologies and processes for the efficient reuse of certain by-products in the most resourceful and cost-effective way is an ongoing challenge for our industry. We will continue to promote the implementation of waste management through our Group-wide target for at least 95% of relevant businesses to have waste reduction or recycling targets in place by 2030 (see page 13).

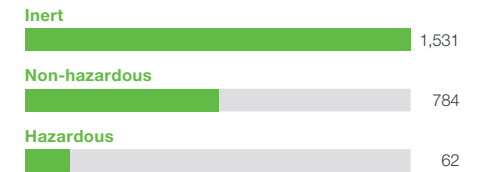
80%

During 2019, 80% of the 2.4m tonnes of waste generated by our operating companies was externally recycled.

2.5m

In 2019, 2.5m tonnes of by-product was diverted from waste streams through waste management practices.

Waste by type (k tonnes)



Waste recycled (% recycled)



Waste by activity (% of total waste)



Environment - continued

Protecting water resources

Fresh water is crucial for sustaining healthy communities, businesses and natural ecosystems. It is vital we use it responsibly and help to protect water resources for the long-term success of our operations, the local environment and the communities that rely on it.

Water use

Water is an important resource for our activities, most significantly in the production of aggregates and to suppress dust across our extractive activities. In 2019, our operating companies recorded an estimated water withdrawal of 108.7m m³, down from 119.6m m³ in 2018. Of our main water usage, 75% of our total water withdrawal is for 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 relevant activities.

Increasing water efficiency

Increased innovations in water usage and recycling, such as closed-loop systems installed in manufacturing processes and increasing usage of water from settlement ponds, has resulted in operating companies reducing the amount of water intake from utility sources. In 2019, water was recycled at 895 of our locations, reducing our water intake by 59%.

Water quality

We comply with stringent environmental regulations to ensure that our activities, in particular raw material quarrying, do not endanger local bodies of surface water and groundwater. We ensure the quality of discharged process water by using settling ponds and pH neutralisation systems. Some of our facilities also operate their own wastewater treatment plants.

Water discharge can be difficult to quantify because of the contribution of storm water and limitations in metering. Our total water discharge in 2019 was estimated to be 33.1m m³, with 86% discharged to surface water and the remainder to public sewers and other.

To avoid potential spills of fuels and other polluting materials, we implement best practice in materials storage. Our policy is to decommission all unprotected underground storage tanks.



Oldcastle Infrastructure, part of our Building Products Division, is supplying 2.1 miles of pre-fabricated concrete box culverts to a stormwater drainage project in downtown Tampa, Florida. The project will reduce flooding and provide safety for pedestrians and vehicles, reducing the impact of extreme weather conditions.

Water stress

In 2019, 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 operations. The assessment indicated that less than 1% of our active locations are identified as in areas under "High Risk" or "Extremely High" drought severity. The outcomes of this assessment confirm that Group activities do not highly impact on water and our locations generally do not operate in water-stressed areas. The WRI Tool allows for future scenario impacts of our existing operations, which we will include in our management systems for water use going forward.

895

In 2019, water was recycled at 895 of our locations, reducing our water intake by 59%.

Our stakeholders tell us:

“

Credit Valley Conservation has proudly partnered with CRH Canada to create a vital migratory bird habitat at the Mississauga location as part of CRH's corporate biodiversity strategy. The Flyway project has established two hectares of diverse habitat in a highly urbanized setting next to Lake Ontario. It's a welcoming rest stop for migrating birds on their epic journeys."

Deborah Martin-Downs
Chief Administrative Officer,
Credit Valley Conservation

Water

What are the challenges and how are we managing them?

It is a challenge to monitor water intake and discharge from all of our activities due to limitations in metering. In order to make improvements, we are increasing our focus on recycling water, reducing water usage and improvements in water accounting across relevant activities. We have set a 2030 target for 100% of relevant locations to have water management plans in place.

Environment - continued

Enhancing biodiversity

As a large-scale landholder, our approach to the preservation of land and protecting biodiversity is an integrated part of the way we operate. We strive to enhance natural habitats and promote a culture of appreciation and respect for biodiversity across our company locations.

Biodiversity management plans

Protecting biodiversity is a significant consideration when we examine the possibility of any process expansion of new and existing extractive activities or site restoration planning. Environmental impact assessments (EIAs) associated with permit applications require biodiversity management plans (BMPs) to be incorporated into mitigation plans, in line with best international practice.

At present, 509 Group locations are noted for their biodiversity due to the variety of species and habitats or the presence of rare species of flora and fauna. In 2019, 68% of relevant locations in sensitive areas for biodiversity had BMPs in place. We have a 2030 sustainability target that all locations deemed to be biodiversity-sensitive must have a BMP in place in line with international best practice.

Managing impacts of extractive activities

The extraction of natural resources makes up a significant portion of our company activities. We aim to avoid and minimise potential impacts on water quality, the disturbance of birds, animals and plants, and the fragmentation of biodiversity corridors. We restore or rehabilitate disturbed ecosystems and respect offsetting principles by increasing biodiversity in other areas.

Extractive activities can also create 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. Other management measures include suspending blasting during nesting periods and excluding specific areas from quarrying to preserve valuable habitats.

Collaborating for biodiversity

Many of our operating companies collaborate to develop conservation solutions with partners, such as the World Wide Fund for Nature (WWF) in the Philippines, the International Union for Conservation of Nature (IUCN) in France and the Wildlife Habitat Council in North America.

We believe collaborating with international, national and local organisations is the most effective way to mitigate the environmental impacts of our operations and ensure the preservation and enhancement of biodiversity across our locations.



Jura Cement, part of our Europe Materials Division in Switzerland, received a special recognition at the 2019 European Aggregates Association UEPG awards for the work they have carried out to protect local biodiversity at their Cornaux location. This includes the development of a regional wildlife corridor at the Cornaux quarry consisting of multiple ponds, rock features and bird boxes to support the populations of amphibians, birds and insects in the area.

Our stakeholders tell us:



Biodiversity and ecosystem health are intrinsically linked as healthy plant and animal populations are clear indicators of environmental quality. By implementing biodiversity programs on its own lands, CRH positively impacts the larger ecosystem within and beyond its fence line. The conservation investments made by CRH realise co-benefits for biodiversity, employees and the greater community.”

Margaret O’Gorman

President, Wildlife Habitat Council and author of ‘Strategic Corporate Conservation Planning’

Biodiversity, ecosystems, land use and quality

What are the challenges and how are we managing them?

It can be a challenge to strike the right balance between supporting biodiversity within our quarries and extractive locations and ensuring responsible land use and securing the long-term productivity of our extractive locations. To address these challenges, we have set an ambitious 2030 target for all relevant locations to have a BMP in place and we will continue to partner with organisations for the protection and promotion of biodiversity.

Environment - continued

Preserving natural and cultural heritage

Protecting and restoring cultural heritage is an integral part of the management of our extractive locations and activities. We have a responsibility to ensure the conservation of natural and cultural heritage within and around our locations, for future generations.

Restoration planning

We have a responsibility to ensure raw materials are extracted from our locations in an environmentally compatible and economical manner and that all associated areas are restored or appropriately managed at end-of-use.

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 quarries and pits is typically carried out close to completion of excavation activities, restoration is a continuous process, with the rate of reinstatement depending on the closure of excavation sites. In 2019, 782 hectares of quarry and pit area was reinstated.

99%

We encourage biodiversity and restoration across our Group companies and in 2019, 99% of our extractive locations had restoration plans in place.

782 ha

In 2019, 782 hectares of quarry and pit area was reinstated.

Preserving local heritage

The preservation of cultural heritage is important to our integrity as a society. We make it a priority to conserve local heritage, recognising its importance to the communities and countries in which we operate.

Prior to opening new extractive areas, 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 72 company locations as part of relevant management plans, ranging from iron age structures, medieval buildings and remnants from World Wars.

Targets

At the end of 2019, 99% of our extractive locations had restoration plans. We are on-track to meet our 2020 target to ensure that 100% of relevant extractive locations have a restoration management plan in place. Looking to the future, our operating companies will continue to incorporate restoration planning into all extractive activities to ensure the protection of the surrounding environment and create new land uses for both wildlife and society.



The remains of what could be the UK's oldest timber-frame buildings have been unearthed at a quarry belonging to Tarmac, part of our Europe Materials Division in the UK. Tarmac's Killerby quarry in North Yorkshire has yielded the remains of two settlement structures dating from the Mesolithic or Neolithic eras, roughly 12,000 to 6,000 years ago. These discoveries have come about through a 10-year-long collaboration between Tarmac and Archaeology Research Services Ltd (ARS), involving extensive archaeological work undertaken at the site prior to the quarry commencing operations. The settlement is the latest in a catalogue of finds uncovered by ARS Ltd in collaboration with Tarmac, including rare flint arrowheads and other ancient tools.



We are on a journey to create an inclusive environment where all our people feel empowered to deliver our strategy. By focusing on the success and sustainability of our organisation, we aim to attract, develop, retain and motivate the workforce of the future.”

Gina Jardine
SVP - Human Resources, CRH Building Products



People



Meeting the needs of our global workforce	37
Engaging with employees	38
Developing our employees	39
Fostering inclusion and diversity	40
Rewarding our employees	41

Inclusion and diversity is an important focus area for all CRH operating companies. Staker Parson Materials & Construction, part of our Americas Materials Division, supports an inclusive and diverse environment at its operations in Ogden, Utah, where it employs 300 people.

People - continued

Meeting the needs of our global workforce

With c. 80,300 employees in 30 countries, CRH is a multinational and multicultural organisation. We aim to attract and develop a global workforce that is as diverse as our customers and communities, recognising that people are critical to sustaining competitive advantage and long-term success.

Applying our robust social policy

We have a responsibility to provide our employees with a safe and respectful work environment, as outlined in Group policies and guidelines. These policies lay out key management responsibilities in important areas, such as, but not limited to, employment, human rights, procurement, competition law and customer relationships together with obligations regarding charitable and community activities.

To ensure compliance in these areas, we rigorously apply our Social Policy (see page 63) across all our operating companies. Our Social Policy, which was reviewed and updated in 2019, supports the delivery of the CRH strategy and highlights our commitment and approach to doing business with integrity, including meeting high standards of employee engagement and business conduct. Implementation is verified through the Code of Business Conduct (CoBC) certification, the annual Social Review and ongoing engagement at every level of the Group.

The Board has designated the SESR Committee with responsibility for stakeholder engagement, including with the workforce. We believe this is the best and most effective way of ensuring that the views of employees are understood and are taken into consideration in our decision-making process.

Managing Directors of CRH operating companies are responsible for implementing employment policies, guidelines and objectives in their areas of responsibility, supported by Human Resources teams and Group management.

By ensuring all aspects of our policies are implemented across our activities, we emphasise the importance of doing business with integrity and ensuring high standards of employee engagement.

Embedded in our local community

At CRH, we are very much embedded in the local communities where we extract our raw materials and manufacture and distribute our products and services.

One way our companies contribute to their local communities is through employment. Over 95% of our employees live in the area local to our businesses and many of our employees enjoy long-term careers with the organisation.

c. 80,300

Our global footprint spans 30 countries, employing c. 80,300 (FTEs) at over 3,100 operating locations.



For the second consecutive year, CRH Canada, part of our Americas Materials Division, has made the 'Greater Toronto Areas Top Employers' winner's list. Now in its 13th year, only the very best employers in the city are considered in this competition, which has become the benchmark in the Greater Toronto Area for workplace best practices.

Our stakeholders tell us:



It has been fantastic to welcome CRH to our 30% Club's cross-company mentoring programme. This programme is focused on developing the pipeline and parity of female leaders through working cross-company, cross-sector and cross-level. CRH is a committed member of this programme – dedicated to our collective quest to bring about positive change for men and women at CRH and more broadly."

Liz Dimmock
Founder & CEO, Women Ahead | Moving Ahead

Employees

What are the challenges and how are we managing them?

The success of a company relies on the talent and engagement of its employees. One of the challenges we face is that we have to engage with thousands of employees across multiple countries and ensure their needs are addressed. To ensure our employees feel engaged, we are continuing to champion inclusion and diversity and increasing our focus on talent management, leadership development and creating a globally mobile workforce.

People - continued

Engaging with employees

Everything that we achieve is made possible by our engaged and talented workforce of c. 80,300 employees who consistently deliver our strategy, products and materials.

Culture of communication

We want our people to reach their full potential and play their part in the success of our business. We foster a culture of open communication which drives understanding of the needs of our employees while enabling them to acquire the information and skills needed to deliver our strategy.













In 2019, 87% of employees were included in regular employee briefings, informal meetings where open dialogue is encouraged.

Monitoring employee satisfaction

A dynamic, entrepreneurial environment is key to driving global collaboration and innovation. To measure how far our employees believe we are living our values, we monitor employee satisfaction and feedback both formally and informally. With an average of 26 employees at each location, we benefit from close working relationships between management and their teams, which also supports informal monitoring.

In 2019, 34% of employees were surveyed for employee engagement and satisfaction, covering both management and staff. Results indicated a high level of employee engagement, with 100% of those scoring in the “engaged” or higher categories. Our operating companies use the insights we gain through employee feedback to inform ways of working, engagement strategies and leadership development approaches.

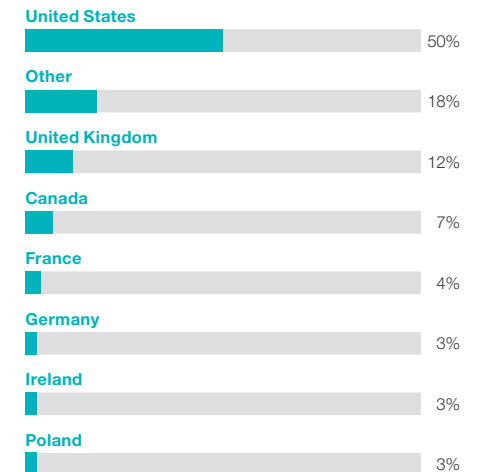
How we connect with employees

Regional level	 Webcasts with Divisional Presidents	 Forums	 Seminars	 “Town Hall” meetings
Company level	 Employee briefings	 Open dialogue	 Suggestion schemes	 Exit interviews
Global level	 Online newsletters	 Video messages	 CEO blog	 Internal news portal



In 2019, our Americas Materials Division launched a communications campaign to celebrate the people and teams across the Division that collectively make it successful. The campaign featured six employees and their families, including the Environmental, Health & Safety (EHS) Coordinator from ICON Materials in Auburn, Washington, who has been with the company for over 30 years.

Employees by country 2019



People - continued

Developing our employees

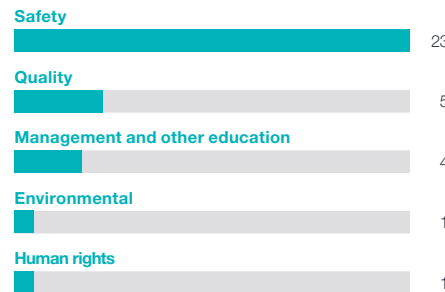
Attracting and retaining the best talent in today's competitive hiring market is a challenge faced by many companies. We believe in fostering a culture of continuous development for our employees, ensuring we have the talent and capabilities we need, now and in the future.

Employee training

In 2019, employees received a total of 2.7m hours of training across our business, which equates to 34 hours per employee. Our aim is to help our employees build on their expertise in areas such as safety, front-line leadership, environmental and skills training, and compliance-related training on topics such as our Code of Business Conduct (CoBC). In 2019, 98% of employees received training which satisfied our 2020 target of 95% of employees to receive training annually.

Training by type 2019

(Hours per employee)



98%

In 2019, 98% of employees received training, exceeding our 2020 target of 95% of employees to receive training annually.

2.7m

In 2019, employees across our business received a total of 2.7m hours of training.

Professional and leadership development

At CRH, we offer opportunities for career development across all levels of education and employment. This is of particular relevance to smaller communities where we constitute a large portion of local employment, providing access to world-class learning and development resources, educational and performance support systems and reimbursement for job-related degree programmes. In 2019, 85% of our operating companies offered career development opportunities or advice to employees. Career guidance was received by 54% of management, 28% of operational employees and 29% of clerical/admin employees globally.

We also emphasise opportunities for international mobility across the businesses, particularly for management roles. There are opportunities for members of our team to work in areas outside of their native jurisdiction for varied lengths of time on projects designed to grow their skills and develop their careers. We aim to cultivate a diverse leadership base in terms of both nationality and culture. This can develop other leaders, empower teams that can create and innovate on behalf of customers and inspire our employees to be the best at what they do.

The core competencies required for leadership development are outlined in the 'CRH Leadership Profile' and are currently being fully integrated within performance management and leadership development programmes. We commit significant resources to global mobility assignments and associated leadership development programmes. To continuously identify high-performing and motivated leaders, we systematically review our approach and accurately combine our employee's skills and our business needs to create a multi-beneficial relationship where projects are completed, while employees can grow.

Graduates and apprentices

We collaborate with local communities and contribute to their development through our apprenticeship schemes, graduate programmes and educational partnerships. Successful graduates and apprentices are given the opportunity to gain hands-on experience across our operating companies. An example of this is with our CRH Technical Cement Graduate programme in Eastern Europe, which has allowed over 50 recent graduates the opportunity to grow their technical capabilities, while learning about our business.



As part of its commitment to up-skilling the next generation, Tarmac, part of our Europe Materials Division in the UK, has enrolled 45 apprentices on to its fully accredited vocational qualification in mobile and static operations through the Professional Operator Development Programme (PODP). Apprentices enrolled on this programme receive practical on-the-job experience as well as training, where they cover topics designed to enhance their professional understanding of the industry.

People - continued

Fostering inclusion and diversity

Our ambition is to be an organisation that has a culture of acceptance, trust, respect and teamwork, promoting a creative and thriving environment in the workplace. Inclusion and diversity is key to achieving this, by creating a pipeline of strong talent representing a broad range of ethnicities, backgrounds and experiences to build a better CRH.

Promoting inclusion and diversity

The benefits of an inclusive and diverse workforce are clear to our business leaders and are directly connected to our sustained commitment to serve our employees and customers. We have established a Global Inclusion & Diversity Council, comprising of people from varied backgrounds across CRH, as well as our Chief Inclusion & Diversity Officer, to draw on global best practice to create a world class inclusion and diversity standard for the Group.

Striving for gender balance

Gender diversity within our sector remains a multi-dimensional challenge. Many roles within our industry have not traditionally attracted females and, while this is beginning to change, progress is slow. Current figures indicate that 86% of our total employees are male. However, when considering the breakdown of representation by sub-industry such as clerical/administration and management, there is a higher proportion of female employees, with 45% and 16% respectively. In addition to this, 11% of our senior managers are female and 15% of senior leadership are female.

For several years, we have been targeting greater gender diversity on our Board, and 42% of our directors are female, up from 15% in 2013. We have also set an ambitious target for 33% female in senior leadership roles by 2030. You can read more about this ambition on page 12.

We support the 30% Club which consists of Chairs and CEOs committed to better gender balance at all levels of their organisations. For example, several of our employees are taking part in the 30% Club Women Ahead mentoring programme, an international cross-company initiative to develop future female leaders. This programme broadens the exposure of participants to diverse points of view and will help to build a pipeline of future female leadership talent for CRH.

Equality in the workplace

We focus on equality beyond numbers, ensuring that all of our employees, irrespective of ethnicity or gender, feel included and valued for their efforts across the business. Group companies have policies to ensure equal pay for men and women, as well as equal opportunities for people of all ages and those with disabilities where possible.

At present, 6% of our workforce are under 25 and 32% of our workforce are between the ages of 25-39. A total of 1,416 people with disabilities were employed across 52% of Group companies during 2019. We are working to improve the proportion of under-represented employee groups – such as female employees, individuals with disabilities and ethnic minorities – advancing to senior management.

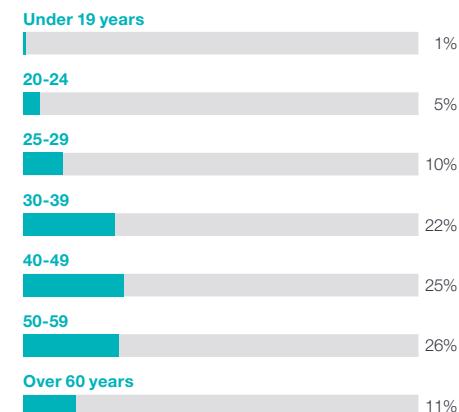


As we deliver our vision and work towards our 2030 ambitions, our inclusion and diversity strategy will be overseen by our Global Inclusion & Diversity Council, who meet quarterly from our offices in Dublin, Atlanta and Amsterdam to discuss progress in the key areas of: Communication; Education & Awareness; People & Practices; and Data & Measures.

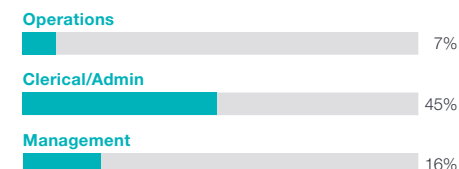
Developing a diverse talent pipeline

Our goal is to become a magnet for top talent, attracting, developing and empowering future generations of CRH leaders. To develop goal-orientated and innovative graduates, we have continued to focus on secondary level students, encouraging a larger representation of females in STEM (science, technology, engineering and mathematics) subjects. We participate in initiatives at a regional and operating company level with the goal of encouraging students to consider employment in sectors where females constitute less than 40% of employees.

Employees by age 2019



Gender balance by category 2019 (% female)



People - continued

Rewarding our employees

At CRH, we strive to meet the evolving standards expected of a modern-day employer to attract and retain talent and inspire our dedicated workforce. When employees feel valued for their contribution to the organisation it can lead to increased productivity, encourage teamwork and strengthen the reputation of the company as a great place to work.

Attractive working conditions

We strive to be an attractive and inclusive workplace where our employees are satisfied with their work and have the drive to engage and inspire our customers.

As a minimum, we comply with local wage and working time laws and our operating companies offer entry-level wages at or above the minimum wage. We promote flexible work practices where appropriate to accommodate a healthy work-life balance for our employees, approximately 2% of whom work part-time. 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.

Employee turnover

Approximately 40% of our employees have been working in our businesses for over 10 years, bringing a balance of knowledge and experience. However, the seasonal and cyclical nature of our industry means our workforce and management are required to deal with peaks and troughs in demand.

Our employee turnover rate is 22%; this includes seasonal employees, many of whom return year after year. We work to limit the impacts of seasonality and provide assistance to 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 and change management procedures are implemented.

Rewarding our employees fairly

We believe in performance-related rewards for our employees, dependent upon their contribution to the success of the business and to what extent they demonstrate company values. We offer fair and competitive rates of pay to attract and retain our employee base, while offering benefits in line with industry and national standards. Our reward systems are transparent and can be designed to reward the entire workforce, sending a positive message about our values and ways of working.

Performance-related reward is a key component at all levels up to executive level. Where relevant, sustainability metrics are included. Safety may be incentivised at all levels while environment, 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.

40%

Approximately 40% of our employees have been working in our business for over 10 years.



Northstone Materials, part of our Europe Materials Division in the UK, have been accredited 'Investors in People' since 2001, a UK standard for people management in the workplace. The current 'Investors in People' framework reflects the latest workplace trends, leading practices and employee conditions required to create outperforming teams.



Customers



- Delivering sustainable products 43
- Listening to our customers 44
- Supporting the transition to a circular economy 45

CRH Ukraine, part of our Europe Materials Division, supplied approximately 62,000 tonnes of cement for the construction of the New Safe Confinement (NSC) at Chernobyl. The NSC took 17 million man-hours to complete. It is a multifunctional complex, designed to prevent further radioactive contaminants from seeping into the surrounding environment from Reactor 4, destroyed during the Chernobyl disaster of 1986.



The increasing global population is putting enormous stress on our environment and our resources. We need to look beyond the current take-make-waste model and pursue innovative opportunities that embrace the circular economy and meet the sustainable demands of our customers.”

Peter Kiley
Executive Vice President, Strategic Sales,
CRH Building Products



Customers - continued

Delivering sustainable products

At CRH, we supply the materials that are needed to build a low-carbon society. Our approach to sustainability covers the entire value chain and involves a whole life-cycle approach, from sourcing raw materials through to design, building use and end-of-life waste management.

Products with sustainable attributes

We offer multiple products and building solutions with enhanced sustainability attributes. In 2019, these accounted for 44% of our product revenue. These include products with lower environmental footprints, concrete products used in flood defence systems, lime used in desulphurisation of air emissions, as well as products that deliver sustainability benefits for the built environment, such as concrete used in sustainable building solutions.

In recognition of our need to contribute to international efforts towards a low-carbon society, our 2030 CRH ambition focuses on 50% of product revenue to come from products with enhanced sustainability attributes by 2025 (see page 12 for more information).

Green building solutions

From healthy, energy-efficient buildings to green infrastructure, our products can make a real difference in addressing the sustainability challenges that urbanisation brings. An increasing number of our products are helping customers achieve higher scores in green building rating schemes such as BREEAM®, DGNB, and LEED®.

Overall, 24% of our relevant product revenue is from products that can be used in certified sustainable building schemes. Relevant product revenue for this metric is from products that can be used directly in structures such as concrete and building envelope products and not intermediary products such as cement and lime.

44%

In 2019, products with enhanced sustainability attributes accounted for 44% of our product revenue.

Responsible sourcing

We are an active advocate of increased product transparency and provide information on the environmental performance of our products, supported by Environmental Product Declarations (EPD). In addition to EPD, several of our products are certified to the BES 6001 standard for responsible sourcing for construction products.

We work collaboratively to enhance sustainability throughout the life-cycle of products. For example, we are a Founding Member of the Concrete Sustainability Council (CSC) which has developed a Responsible Sourcing Scheme industry standard for concrete.



Oldcastle APG, part of our Building Products Division, supplied a permeable interlocking concrete pavement system for the \$28.9 million Elkridge Library and DIY Education Center expansion project. The Aqualine™ system helped the project obtain LEED® Gold certification due to both the local sourcing of the product and increased efficiency to manage urban stormwater, thereby reducing flooding, erosion and sewer overflows. The project was also awarded the USGBC® Wintergreen Award for environmental stewardship.

Our stakeholders tell us:



The Dutch Concrete Agreement was a major milestone in the concrete value chain, fostering the demand for more sustainable concrete towards a CO₂ reduction ambition of 49% by 2030. However, innovation is needed to take real steps towards this ambition, requiring resource efficiency and strong management to create a space in concrete production for experimenting, testing and monitoring performances.”

Martin van der Vliet
Secretary, Dutch Concrete Agreement

Resource efficiency and management

What are the challenges and how are we managing them?

Our challenge is to deliver sustainable products that enhance the customer's vision for sustainability without being compromised by the practicality of construction. To achieve this, we will continue to focus on innovation, research and development as we progress towards our CRH 2030 ambition for 50% of Group revenue to come from products with enhanced sustainability attributes by 2025.

Customers - continued

Listening to our customers

Our objective is to offer customers around the world the solutions they need to deliver a sustainable built environment. We work with forward-thinking customers to innovate and refine the design, delivery and application of sustainable products through construction, building materials and technical support.

Innovating for a sustainable future

Innovation is at the heart of the sustainability agenda. New digital, robotic and artificial intelligence technologies are allowing for more sustainable process and product efficiencies than before. As well as this, the way we work with customers to design and construct infrastructure and buildings has transformed. A key outcome is greater resource and energy efficiency, as well as lower emissions, all of which results in a smaller carbon footprint both for us and our customers.



Part of our Building Products Division, HALFEN in Germany and Thermomass in the USA, started a collaboration to introduce the Thermomass product line of glass fiber sandwich wall anchors into the Italian market, by leveraging HALFEN's commercial excellence and market reach. This product is not thermally conductive, which allows the production of more sustainable and better performing sandwich walls. Additionally, it offers customers a faster installation and easier quality control than traditional solutions. The businesses are working to replicate this approach in other European markets.

Customer satisfaction

To understand how our products and solutions are meeting customer needs and identify areas for improvement, we carry out regular perception surveys across our markets. In 2019, out of the 58% of Group companies who carried out formal surveys, customer satisfaction was rated at a high level, with 93% of completed surveys indicating above average levels of satisfaction with our products and/or services.

Product responsibility

Product responsibility concerns the impact of our products and services on the environment, our stakeholders and customers. We consider health and safety aspects from product concept stage right through to product use. Where necessary, our products are accompanied by Safety Data Sheets containing information on use, storage and application. All our companies operating within the EU comply with the European Regulation on Chemicals (REACH) requirements in providing 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.

93%

In 2019, 93% of completed formal customer surveys indicated above average levels of customer satisfaction.

Our stakeholders tell us:



The City of Pigeon Forge, Tennessee, welcomes 8 million visitors per year, so the parking lot at the Le Conte Conference Centre needs to be effective. Oldcastle APG's permeable interlocking concrete pavers allowed engineers to re-design the underground infrastructure, improving stormwater flow, reducing runoff, lowering the heat island effect and saving money for the city."

Joe Pierce
Hickory Hardscapes

Customers and products

What are the challenges and how are we managing them?

Challenges associated with customer relations and satisfaction can relate to meeting evolving customer expectations and devising effective strategies to overcome the technological, operational and cultural barriers to meeting these needs. For CRH to meet these challenges, we focus on aligning our products and services to the evolving demands of our customers and promoting our range of sustainable products.

Customers - continued

Supporting the transition to a circular economy

The concept of a circular economy challenges us to create a more regenerative system that ensures valuable resources are reused and recycled for as long as possible as part of new product life-cycles. It is an opportunity for collaboration across industries to create sustainable value by being smart with resources.

Alternative raw materials

By rethinking and redesigning our products and components, we improve the life-cycle performance of buildings and provide end-of-life solutions for our products.

Our operations use by-products from both our own and other industrial processes, such as recycled asphalt pavement (RAP) and shingles, construction and demolition (C&D) waste, fly ash and ground granulated blast-furnace slag (GGBS) and other reused materials.

For example, RAP and shingles provided a fifth of raw materials requirements in our US asphalt business in 2019.

In 2019, we reused a total of 35m tonnes of alternative raw materials, substituting 8% of the virgin materials we would have otherwise used. Of this, 2.5m tonnes of alternative materials were internal by-products such as baghouse fines and off-spec products which were internally recycled back into processes where possible.

Co-processing and the circular economy

As part of the circular economy, waste streams from other areas of industry are recovered and used in manufacture as alternative fuels. This co-processing allows for partial material substitution by replacing certain virgin materials needed for cement clinker manufacture. You can find out more on page 28.

Collaborating for a circular economy

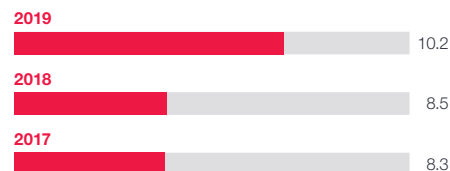
We actively participate in the WBCSD, GCCA, CEMBUREAU, Portland Cement Association (PCA), European Ready Mixed Concrete Organization (ERMCO) and other trade associations which promote the long-term benefits of concrete for the circular economy.

We also provide input and monitoring in the standardisation processes of low-carbon cements through our participation in industry association working groups. This includes Factor10, a WBCSD project on circular economy, which looks across full value chains to take high-level principles into actionable business practice.

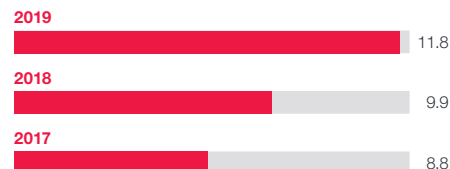
RAP and shingles (m tonnes)



C&D (m tonnes)



Other reused material (m tonnes)



35m

In 2019, we reused a total of 35m tonnes of alternative raw materials within our processes.

2.5m

Of our total alternative materials used in 2019, 2.5m tonnes were internal by-products from our own processes.

Our stakeholders tell us:



Our industry is fully committed to taking action to reduce CO₂ emissions. Innovandi, the industry-led Global Cement and Concrete Research Network, will bring together the best minds from all corners of the cement and concrete world to research the areas of process and low-carbon technology, including the impact of clinker substitutes and alternative binders in concrete.”

Benjamin Sporton
Chief Executive, Global Cement and Concrete Association (GCCA)

Alternative fuels and materials

What are the challenges and how are we managing them?

Maintaining a constant supply of the highest quality alternative fuels and materials needed in production to support a circular economy can be a challenge. Addressing these challenges will require strong organisation and planning at all stages of production. We will continue to collaborate with our customers and suppliers throughout the value chain to ensure that we can use the optimum raw materials required to meet our high quality standards.



Collaboration

Engaging with stakeholders	47
Respecting human rights	49
Managing our supply chain	50
Engaging with communities	52
Creating value for communities	53

CRH Americas employees, family, friends, customers and vendors came together over 10 weeks to donate materials and build our 10th Habitat for Humanity home in Tampa, Florida. This year's home, built for the Singleton family has four bedrooms and two bathrooms, and is Energy Star Certified and hurricane resistant. CRH began a partnership with Habitat for Humanity in 2010. Of the previous homes, five were built in Atlanta, Georgia and one each in Paterson, New Jersey, Salt Lake City, Utah, Dallas, Texas and Columbus, Ohio.



Our success in meeting today's societal challenges is dependent on building strong relationships with our employees, customers and communities. It is through engagement and collaboration with stakeholders that we promote transparency and create positive change across the value chain."

Junaina Saulat

Director, Corporate Marketing & Communications,
CRH Americas Materials



Collaboration - continued

Engaging with stakeholders

We engage with multiple stakeholders around the world, serving as a materials and products provider to thousands of projects, an employer to tens of thousands, and operating as a family of businesses immersed in our local communities. Together with our employees, customers, suppliers and stakeholders, we are determined to make a positive difference for people, society and the environment.

Stakeholder engagement

We take an inclusive, collaborative and responsive approach to developing stakeholder relationships, while empowering our businesses to deliver local engagement in an inclusive and transparent way.

We engage with numerous stakeholder groups, including investors, customers, employees, NGOs and other interested parties, to generate a balanced and comprehensive understanding of the needs of our stakeholders.

We are also very much embedded in local communities, with the majority of our employees living in the area local to our businesses. Therefore engagement with our communities is imperative to understand how we can create long-term value for our stakeholders.

In 2019, our operating companies hosted over 1,400 stakeholder engagement events and participated in many more. In addition, many of our employees give their time to our communities in many ways, including participating in Boards of charities and industry associations.

1,400

In 2019, our operating companies hosted over 1,400 stakeholder engagement events.

€6.5 million

In 2019, we donated €6.5 million to local organisations and initiatives within our communities.

Using outcomes of stakeholder dialogue

Stakeholder input is particularly important in developing, implementing and continuously improving our sustainability policies and commitments. It leads to improved engagement and communication, continued improvement in our sustainability reporting, increased understanding of our impacts and opportunities, and helps us to build strong partnerships.

We use the outcomes from stakeholder interactions to identify gaps and opportunities for our businesses at a global and local level. This analysis feeds into action plans for relevant areas.

Internal and external stakeholder feedback has played a central role in our recent materiality assessment process in evaluating and prioritising our key material issues across the Group (see pages 15-16 for more information).

How we make a difference through engagement

Proactive engagement and communication leads to stronger partnerships and increased opportunities for all our stakeholders, as well as continued improvement in our sustainability performance. This in turn, drives positive change in the communities in which we operate. You can read more about the ways in which we are engaging with local communities and our positive contributions on pages 52-53.



CRH Serbia, part of our Europe Materials Division, was awarded the VIRTUS award for corporate social responsibility and philanthropy in Serbia for its contribution to local community development. For over a decade, CRH Serbia has been collaborating with multiple NGOs and charitable organisations in the communities in which it operates, providing strategic support and sharing best practice for community development.

Collaboration - continued

How we engage with our stakeholder groups

	Employees	Local communities	Investors	Customers	Suppliers	Government and regulators	Academic and scientific community	Media	NGOs and pressure groups
Key areas of interest	Business performance Health and safety Inclusion and diversity Corporate governance Human rights Potential local impact	Community issues Planning matters Potential local impact Sustainability	Business performance and strategy ESG topics Acquisition integration Board and Executive remuneration	Customer relations and contracts Quality and delivery Health and safety Sustainable products Product innovation Collaboration	Quality and delivery Health and safety Contract performance Local impacts Corporate governance Human rights	Health and safety Environment and climate Corporate governance Planning matters Natural capital Standard setters	Environment and climate Product efficiency and innovation Human rights Natural capital Graduates and apprentices	Business performance Health and safety Inclusion and diversity Environment and climate Product innovation Corporate governance	Eco-efficiency Environment and climate Human rights Corporate governance
Key methods of engagement	Team meetings Employee surveys Employee newsletters Town Hall meetings CEO blog Performance reviews One-to-one meetings/briefings	One-to-one meetings Open days Site tours Participation in local events Employee engagement processes	Annual General Meeting One-to-one meetings and calls Surveys Investor conferences and roadshows Results presentations	Negotiations Customer surveys Formal market research Company websites and social media Product information on packaging Customer relationship development Exhibitions	Supplier surveys Contractual meetings Tender quotations Information requests	Briefings and direct meetings Multi-stakeholder forums Industry associations Audits Open days	One-to-one meetings Seminars and lectures Intern, graduate and apprenticeship programmes Presentations Round table discussions	Media surveys Interviews Media briefings Press releases Social media	One-to-one meetings Presentations Participation in events Open days
Frequency of engagement	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	As required	As required	Ongoing	As required
Outcomes	Improved engagement with employees helps to attract, develop, retain and motivate our workforce, sustaining our competitive advantage and long-term success as an organisation	Engaging with our local communities ensures we understand their needs and priorities, address any concerns and take responsibility for potential impacts	Engagement with investors helps us understand their expectations of our risk management and financial and ESG performance and allows us to take on board feedback of our management and reporting practices	Engaging with our customers ensures we listen to their needs and deliver innovative and sustainable solutions required to meet their sustainability commitments, building strong relationships and excellent customer service	We engage with suppliers to develop a responsible, inclusive and sustainable supply chain needed to deliver innovative and sustainable products and improve practices in areas such as safety, transparency and business conduct	Through our engagement with local and national regulators and governments and industry associations, we contribute to issues relevant to our activities and improve our sustainable performance and compliance standards	By engaging with academic and scientific institutions, we are supporting partnerships and collaborations on research development, championing innovative advances for our industry and beyond	Improved engagement with media ensures specific sustainability issues are addressed appropriately and effectively, building on public understanding of our sustainability performance and positive impacts of our industry	Through our memberships and partnerships with NGOs we are involved in developing industry best practices across a range of established sustainability topics and collaborating on sustainable solutions across the value chain

Collaboration - continued

Respecting human rights

At CRH, we have a long history of respecting human rights, no matter where we operate in the world. We are committed to building knowledge and awareness on human rights across our entire value chain. This commitment is reflected in our Code of Business Conduct (CoBC), which covers all of our operations (see page 56). However, the business and human rights agenda is continuously evolving and we still have much to do on this complex topic.

Managing human rights risks

We understand the growing importance of human rights as a sustainability topic and the role of businesses in the protection and upholding of human rights across their operations.

We support the principles set out in the articles of the UN's Universal Declaration of Human Rights and the International Labour Organisation's Core Labour Principles. We use several mechanisms to assess and manage risks in relation to human rights. These include our Enterprise Risk Management Framework (see page 55), our annual review of social performance, which includes a focus on human rights, and our supply chain risk assessment processes (see pages 50-51).

Upholding human rights in our supply chain

Our potential impact on human rights can occur anywhere along the value chain and may include issues relating to labour rights, child labour and forced labour to poor health and safety standards and impacts on local communities.

We use risk assessment to identify our high-risk commodities. Currently, these include natural stone, wear parts and some alternative fuel sources. Where we discover potential human rights risks in our supply chain, we investigate them openly and transparently with our partners, adopting an appropriate level of interaction and intervention to manage the risk.

22%

In 2019, approximately 22% of our employees were members of trade unions.

Labour practices

We review labour practices annually across all Group companies. In 2019, 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. Our People section (pages 36-41) provides more detail on our employment practices and the work we do to develop and grow our staff and ensure their employment rights.

Freedom of association

We respect the right of employees to freedom of association. Approximately 22% of our employees were members of trade unions in 2019. 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 70% in certain countries.

Wage negotiation is carried out depending on local industry practice. In 2019, 70% of the wage reviews were carried out on an individual basis or through unions/groups. Overall, the level of lost days due to industrial disputes was low in 2019, with just 731 man-days lost, equivalent to 0.003% of all man days.



Find out more about our approach to respecting human rights in our annually updated 'Commitment to Human Rights: Tackling Modern Slavery Statement', which is available on www.crh.com.

Our stakeholders tell us:

“

Transparency requirements of key sustainability issues, such as labour practices and modern slavery, are increasing around the world. Many businesses, including CRH, now integrate these issues into supply chain due diligence processes that previously focused primarily on workplace safety and environmental impact.”

Rhys Bush
VP EMEA, Avetta

Human rights

What are the challenges and how are we managing them?

Our greatest risk areas for human rights abuses are within our supply chain. We face the challenge of managing risks across a complex global supply chain involving many players across multiple countries. We continue to improve our processes in line with evolving best practices, with a focus on ensuring 100% of our relevant suppliers are compliant with our human rights and labour policies. We publish our 'Commitment to Human Rights' Modern Slavery Statement annually, which is available on www.crh.com.

Collaboration - continued

Managing our supply chain

Together, our operating companies purchase around €14 billion of goods and services from 123,000 suppliers every year. They also extract raw materials – such as aggregates, sand and gravel to use in our own processes as well as to supply to external customers.

With such a complex supply chain, understanding the impacts of our sourcing processes and taking direct action to manage our risks is an ongoing priority.

Our supply chain footprint

We aim to develop a world-class sustainable procurement approach that ensures our businesses are equipped to implement and manage a sustainable supply chain.

The CRH Group Procurement Council oversees all aspects of purchasing strategy, policy, targets and objectives.

Core business lines each have their own supply chain footprint with different characteristics, challenges and opportunities:

- Our Materials businesses are vertically integrated and often extract much of their own raw materials, or use materials produced by other CRH Group companies, as raw materials
- The manufacture of products within our Building Products businesses has a typical manufacturing supply chain

€14 billion

In 2019 our operating companies purchased €14 billion of goods and services.

123,000

Together, our operating companies purchased goods and services from 123,000 suppliers every year.



Ensuring the best working conditions at our operations is vital. Minimising our energy usage is also a core focus. In 2019, a supplier was identified to scope and install a LED scheme at the EHL Rossla plant, part of our Building Products Division in Germany. The installation of this LED technology has resulted in a decrease in energy usage of over 97,000 kWh at the Rossla plant, as well as significantly improving safety and working environment standards across the site.

Sustainable procurement strategy

Our customers and 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 we have embedded a sustainability approach in our sourcing strategy, as highlighted in the infographic on page 51.

Understanding our risks and opportunities

We assess risk at a commodity level, in line with ISO 20400 best practice. We use twelve assessment criteria covering areas such as health and safety, human and labour rights, environment, climate change and governance. Based on the risks identified and the outcomes of an accompanying opportunity assessment, we enhance our Category Strategy Plans to drive improvement at the point where we have most influence with our suppliers.

Collaboration in sustainable supply chain management

We aim to support the transition towards more sustainable supply chains across the entire industry. We engage with suppliers, governments, industry bodies, businesses and other partners and collaborate to find new ways to innovate and create positive change.

As well as extracting best value from our suppliers we also understand it is important to balance this by supporting local communities and creating social value.

Collaboration - continued

Pathway to impact

Monitoring the drivers

Creating a compelling argument of how and why improved sustainability is good for business and delivers value for stakeholders beyond financial benefits.

CRH Group Policy

Clear and robust policies and standards that reflect best standards. Our Supplier Code of Conduct is available on www.crh.com.

Enablers

Developing processes that enable our procurement teams, sourcing specialists and suppliers to meet our evolving requirements.

Risk and priority analysis

Identifying the risks and prioritising areas for improvement for specific commodities.

Sourcing process

Integrating safer, fairer, cleaner and better performance in all of our procurement and buying activities.

Our supply chain risk

High Low

Benefits

Category	% Spend	Safety & Health		Labour & Social			Environmental & Resource					Economic & Governance	
		Safety	Health	Labour practices	Fairness, inclusion and respect	Social value	Energy and climate	Environmental stewardship	Resource efficiency	Circular economy	Water	Economic growth	Governance and ethics
Packaging	2%	●	○	○	○	○	○	●	●	●	○	○	○
Chemicals	2%	●	●	○	○	○	●	●	●	○	●	○	○
IT & Telecom	1%	○	○	○	○	○	●	○	○	○	○	○	●
Building Components & Manufacturing Materials	8%	●	●	●	○	●	●	●	○	○	○	○	○
Energy	10%	●	●	○	○	○	●	●	●	○	○	○	○
General Services	6%	●	○	●	●	○	○	○	○	○	○	●	●
Mobile Equipment	7%	●	●	○	○	○	●	○	○	○	○	○	○
Production Equipment	5%	●	○	●	○	○	●	○	○	○	○	○	○
Raw Materials	22%	●	●	○	○	●	●	●	●	●	○	○	○
Logistics Services	19%	●	●	○	○	○	●	○	○	○	○	○	○
Maintenance & Production Services	14%	●	●	○	○	○	○	○	○	○	○	○	○
Facilities Management & Estates	4%	●	○	●	○	○	○	○	○	○	○	○	○

Reduced risk
By integrating CSR 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 operation solutions.

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

Collaboration - continued

Engaging with communities

With over 95% of our employees living locally to our businesses, we are very much embedded in the local communities where we operate. We aim to use our reach and influence to maximise our positive impact. Our operating companies contribute to local communities through employment, educational development and supporting local businesses.

Engaging with local communities

We strive to promote positive neighbourly relations to understand the needs and priorities of local stakeholders. To achieve a consistent approach, our operating companies are developing community engagement plans in all relevant locations, to help us understand and address any concerns and take responsibility for potential impacts.

Investing in our communities

Community investment is one of the ways we contribute to thriving and inclusive communities. In 2019, we donated €6.5 million to local organisations and initiatives, focusing on the most prevalent needs in our communities (see page 66 for a breakdown of donations by priority area). Education is a focus area and, as well as donations, we had approximately 1,800 educational interactions with 125,000 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 for students.



In 2019, a team of 30 runners and walkers from Irish Cement, part of our Europe Materials Division in Ireland, completed the Great Limerick Run, raising €10,000 for St Gabriel's Children's Respite House. The new facility, located close to the Irish Cement plant in Mungret, will provide state-of-the-art respite care for children with complex disabilities and high medical needs.

Understanding our social impacts

Like many global companies, assessing the impacts of our social investments is an ongoing challenge. We are focused 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. We use our Communities Reporting Tool to measure inputs and outputs of our investments and projects.

Building resilient communities

As a global building materials company, there is a natural connection between our business strategy and the provision of shelter in our communities.

Many of our operating companies are developing partnerships to tackle the housing crisis in their own communities. For example, our North American business sponsors a company-wide Habitat for Humanity project each year, uniting employees to build a home for a family. In addition to employees' hands-on participation, we donate products including concrete block, pavers and mulch. More impressive than the material and financial support is the impact that these types of partnerships have on neighbourhoods, communities and individuals.

Our stakeholders tell us:

“

We believe that sustainable businesses collaborate continually and invest in seeding their own future success and the success of the communities they operate in. Tarmac, a CRH company, does just that. Over 60 Tarmac employees have collaborated with young people in local communities, through our programme in 2019, generating hundreds of Big Ideas to contribute to solving pressing sustainability issues.”

Jen Baughan
CEO, Solutions for the Planet

Community and society

What are the challenges and how are we managing them?

We want to make a real and lasting impact within our local communities through our efforts. However, tracking outcomes and measuring benefits is challenging. Our businesses are required to implement a Community Engagement Plan and we have a target that 100% of relevant operating companies will have a plan in place by 2030.

125,000

Over the last two years, we had over 1,800 educational interactions with approximately 125,000 people participating.

Collaboration - continued

Creating value for communities

We aim to develop more capable, inclusive and resilient communities through a shared global approach that considers the specific needs of each community. Our social strategy aligns with our core business strategy to empower communities and provide opportunities for us to create common value across our global footprint. Here are some examples of the way our businesses supported their local communities in 2019.

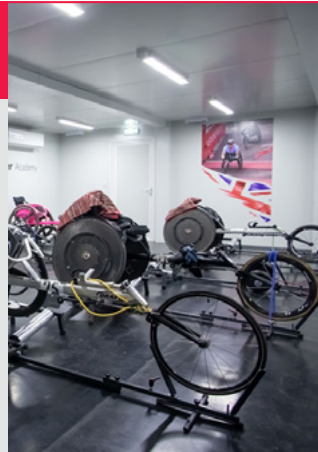
Environment and conservation

CRH Canada and the Joliette Cement Plant, part of our Americas Materials Division, collaborated with the City of Joliette for the development of the Marie-France-Pelletier nature reserve. Named in honour of a local horticulturist, the nature reserve, with an area of 204,071 m², will help to support local biodiversity, such as the population of cork elms.



Community relations and development

In 2019, Tarmac, part of our Europe Materials Division in the UK, collaborated in the development of the Weir Archer Academy, a leading Paralympic sports facility in Kingston-Upon-Thames, London. Employees from Tarmac volunteered their time and expertise across a range of developments at the new facility, from providing a wheelchair accessible entrance, to carrying out groundworks and landscaping. Tarmac also provided some essential equipment for the facility to support the athletes in their training and development.



Education and employment

Oldcastle APG, part of our Building Products Division, supplied masonry as part of the commercial "Valley Ridge Fire & EMS Station" project in Alberta, Canada. The station is decorated with a mural of a mountain range made using various colour blends of Oldcastle APG's Echelon™ Masonry split face and smooth face masonry blocks. As an asset to the community, the mural also provides an artistic backdrop to a neighbouring playground.



Health and wellness

Republic Cement, part of our Europe Materials Division, has continued in its efforts to combat child malnutrition in the Philippines through its Kusina ng Kaling (Kitchen of Care) programme, which works with local stakeholders to provide nutritious lunch meals for schoolchildren. The programme engages the community, specifically the parents of the schoolchildren, who volunteer in the kitchen in meal preparation.



Education and employment

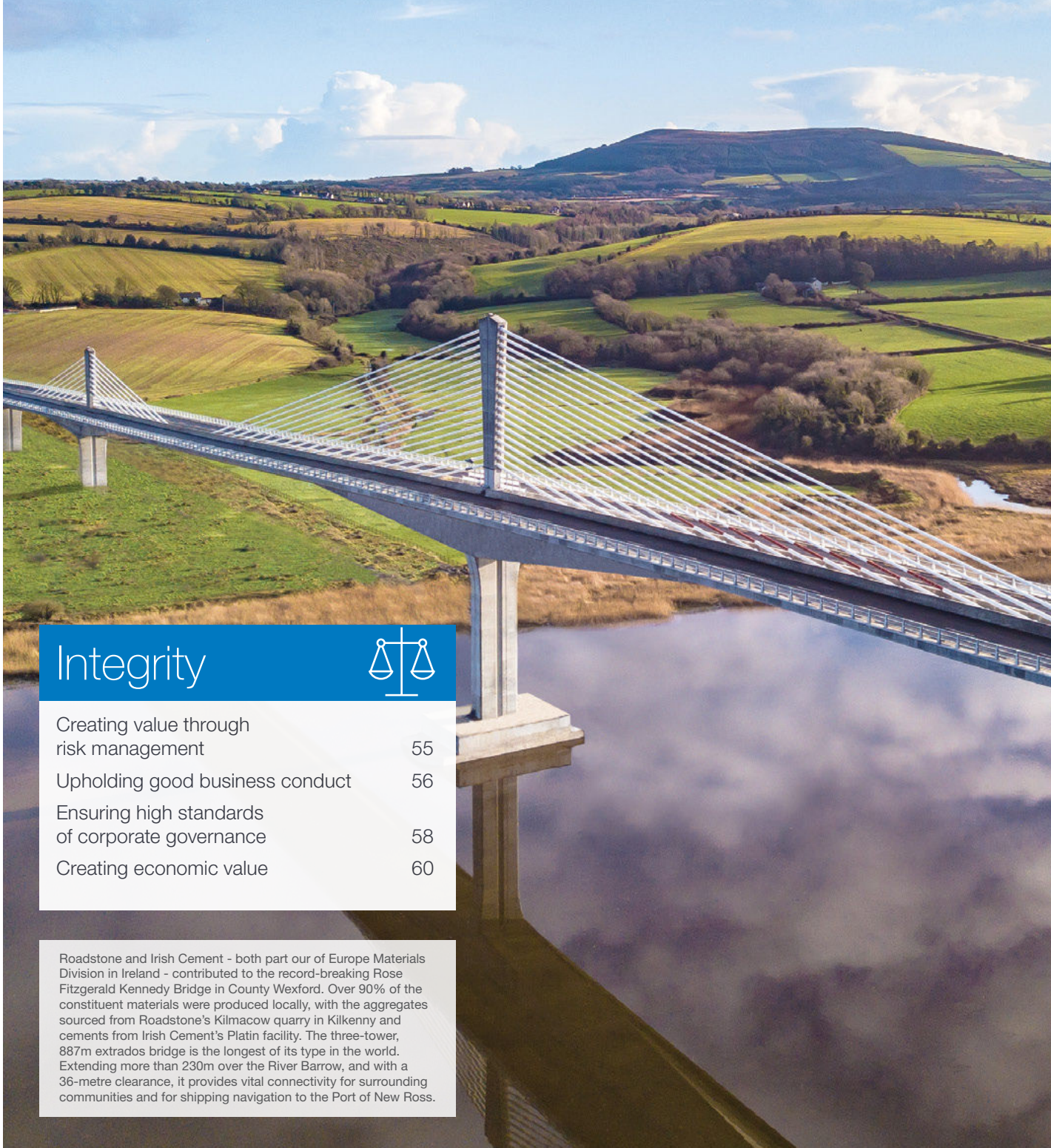
As part of its commitment to developing skilled talent and providing experience, the apprenticeship programme at OPTERRA Wössingen, part of our Europe Materials Division, has had several graduates receive the award of Best Apprentice from the German Chamber of Industry and Commerce for their training in process mechanics and building materials testing.



Provision of shelter

Sullivan Road Gravel Plant, a Central Pre-Mix operation in Spokane Valley, part of our Americas Materials Division, received the NSSGA Platinum Award of Excellence for Community Relations for its work in corporate social responsibility. Employees raised \$11,000 for the Corporate United Way Fund Drive Campaign and helped build homes for those in need as part of a Habitat for Humanity build.





Integrity



Creating value through risk management	55
Upholding good business conduct	56
Ensuring high standards of corporate governance	58
Creating economic value	60

Roadstone and Irish Cement - both part of our Europe Materials Division in Ireland - contributed to the record-breaking Rose Fitzgerald Kennedy Bridge in County Wexford. Over 90% of the constituent materials were produced locally, with the aggregates sourced from Roadstone's Kilmacow quarry in Kilkenny and cements from Irish Cement's Platin facility. The three-tower, 887m extrados bridge is the longest of its type in the world. Extending more than 230m over the River Barrow, and with a 36-metre clearance, it provides vital connectivity for surrounding communities and for shipping navigation to the Port of New Ross.



At CRH achieving a sustainable future means balancing our short and long-term interests. To do this, we are committed to strong governance systems, good business conduct and leading with integrity. We are transparent in our processes and outcomes, believing this builds trust and ensures responsible leadership."

Niamh Flood
General Counsel, Corporate



Integrity - continued

Creating value through risk management

Enterprise Risk Management (ERM) plays a critical role in how we respond to a world of increasing uncertainty. Effectively managing our risks and challenges facilitates better decision making, thereby driving performance, creating growth opportunities and generating sustainable shareholder value for CRH.

Our ERM Framework

Our ERM framework, a core part of our risk management culture, is integrated across our businesses and utilised in strategic decision-making processes.

Sustainability risks relating to areas such as health and safety, emissions, energy efficiency, climate change and local communities are covered through our ERM processes and assessed on an ongoing basis.

Proactively managing risks

We recognise that strong risk management practices can provide a competitive advantage and an opportunity for value creation – highlighted by the integration of our ERM framework into our strategy and performance agendas.

To harness the collective capabilities of the Group and to support the consistent application of our ERM framework, formal risk workshops are held throughout our businesses and functions. These discussion-based workshops facilitate comprehensive risk analysis to ensure appropriate execution of our strategic objectives. Our ERM process optimises the allocation of resources and prioritises mitigating risks which could prevent the achievement of strategic objectives.

Risks are continually identified and assessed as the relevant economic, social, political and regulatory landscape evolves, along with changes to our business and the markets in which we operate. At Group-level, formal materiality assessment processes regularly inform risk prioritisation.

Sustainability risks and opportunities

Exploration and evaluation of the threats and opportunities facing CRH was supported by a comprehensive sustainability workshop held during the year. This exercise gave further assurance that the Group's processes around managing sustainability risks are robust and created a space to identify new initiatives that reiterate our strong commitment to performing sustainably and responsibly within the communities in which we operate.

Our ERM process also allows our businesses to focus on the upside of risk and assess viable value creation activities. An example is our success in addressing the risk of changing customer preferences by becoming a leader in the manufacture and supply of sustainable building products.

Our businesses focus on realising the opportunities provided by managing risk effectively, such as having best-in-class health, safety, sustainability and environmental practices, which makes us an attractive partner of choice. We will continue to identify and manage emerging risks and look for ways to turn them into opportunities to strengthen both our business and our reputation.

Transparency to enable better decision-making

The Group-level Risk Register is informed by our bottom, middle and top line perspectives and contains risks which may impede the realisation of core strategic objectives.

Our principal risks and uncertainties are listed on pages 108 to 113 of the 2019 Annual Report and Form 20-F. They constitute the register which forms the basis of Board and Audit Committee communications and discussions.



Risk Committee

Robust schedule with executive representation, fostering wide-ranging discussion and informing strategy. The Risk Committee provides oversight, leadership and challenge to the processes in place across the Group to identify, assess and manage risks inherent in strategic decision-making and execution.



Risk Strategy

Redefined five year risk strategy setting a roadmap for improvement in risk management frameworks, principles and practices. Five key themes have been identified to achieve our targeted maturity, bringing risk closer to our businesses, improving risk governance and delivering value creation.



Risk Oversight

c.3000 risks being managed through our global ERM framework, enabling full visibility, capability and execution of strategy. Our bottom-up reporting process garners comprehensive risk insights to ensure appropriate execution of risk management and that opportunities to leverage scale are identified and acted upon.



Risk Champion Network

c.90 Risk Champions appointed at all levels of the Group to support and coordinate risk management activities. Our networks enhance the maturity of the ERM framework locally and globally by sharing risk profiles, mitigation strategies and best practice from around the Group. Physical forums and virtual tools ensure robust supports for this cooperative community.

Integrity - continued

Upholding good business conduct

At CRH, we believe ‘there is never a good business reason to do the wrong thing’. This belief sums up our culture and guides the behaviours set out in our Code of Business Conduct (CoBC). We provide ongoing communication and training to employees worldwide to raise awareness of our CoBC and its underlying policies.

Our vision of ethical leadership

We support and encourage ethical leadership, as outlined by our Group Chief Executive in the introduction to the CoBC. We foster an open culture of ethical behaviour driven from the top of the business, clearly communicating to employees what is expected of them and equipping them with the tools they need to ensure compliance.

We engage an external service provider to administer an independent multi-lingual "Hotline" facility. The CRH Hotline allows employees, customers, suppliers and other external stakeholders to raise any good faith concerns they may have relevant to CoBC, inappropriate or illegal behaviour or violations of any CRH policies or local laws.

All concerns are handled discreetly and professionally and investigated with appropriate action taken based on investigation findings. In 2019, a total of 427 concerns were raised globally. A breakdown by type is shown on page 57.

In 2019, 30 proven incidents resulted in disciplinary action. Employees are made aware that CRH will invoke its disciplinary procedures in the event of a proven breach of its policies or any rule of law.

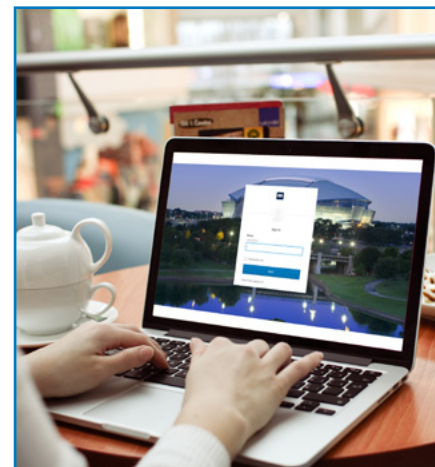
23

All of our training programmes and CoBC are available in 23 language.

Managing compliance risk

We have a robust programme in place to build compliance capacity across the business and ensure we comply with laws and regulations in the markets where we operate. Mitigation against corruption risk is achieved through annual training, guidance and codes, supported through a network of country compliance managers.

Risk workshops are attended by a selection of senior business and cross functional senior management throughout the year. They are led by Group Risk and facilitate meaningful discussions around management's view of risks to ensure a coordinated approach with Group Risk and Group Legal & Compliance.



Our CoBC training programme, which includes an e-Learning component, has at its core the aim of ensuring that everyone in CRH understands that there is never a good business reason to do the wrong thing.

Our stakeholders tell us:



The responsible use of aggregates to build America's infrastructure and economy is two-fold with the importance of business conduct and good governance across our industry. The focus on safety with which our members operate each day and the lengths to which aggregate producers are stewards of the environment demonstrates this commitment, including that of CRH and its companies."

Michael W. Johnson,
President and CEO, National Stone, Sand & Gravel Association (NSSGA)

Business conduct

What are the challenges and how are we managing them?

Businesses are expected to exhibit increasingly responsible behaviour in more areas and be accountable to an ever-wider array of stakeholders. To ensure that we are continuously meeting the needs of our external environment, in 2019 we reviewed and updated all CRH policies. Our CoBC will be refreshed in 2020, in line with international best practice.

Integrity - continued

Upholding good business conduct – continued

Employee training

All new employees are required to complete our CoBC training. Employees working in higher risk areas undertake annual online training as well as face-to-face Advanced Compliance Training (ACT) on policies covering Competition, Anti-Bribery and Anti-Fraud/Anti-Theft principles on a three-year cycle. These e-Learning modules include both a first time and refresher element to the programme. All policies and training programmes are available in 23 languages. Of the employees receiving ACT in 2019, 39% were Managerial, 47% were Clerical/Administrative and 14% were Operational.

Group Legal & Compliance ensures training and communications materials and methods for delivery remain relevant to the risks our employees face in their roles. We achieved our 95% target of relevant employees receiving both CoBC and ACT training.

34,600

In 2019, 34,600 CRH employees were trained in our CoBC.

9,800

In 2019, 9,800 CRH employees received Advanced Compliance Training (ACT) on policies covering Competition, Anti-Bribery and Anti-Fraud/Anti-Theft principles.

Investigations and proceedings

CRH has robust internal controls to help in the fight against corruption and/or fraud as well as a committed training regime on these topics. Risks of corruption and fraud are monitored by management and Legal and Compliance teams and Group Legal & Compliance. In addition, Internal Audit independently monitors these risks and relevant activities. In 2019, there were no investigations from external parties into allegations of corruption against 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 the Group's financial condition, operational performance, or liquidity.

In 2015, the Swiss Competition Commission imposed fines on the Association of Swiss Wholesalers of the Sanitary Industry and on major Swiss wholesalers including certain Swiss CRH subsidiaries; the fine attributable to these subsidiaries was CHF34 million. While the Group remains of the view that the fine is unjustified and it has appealed to the Swiss Federal Appeals Court, a provision of €30 million (2017: €29 million) is recorded in the Group's Consolidated Balance Sheet.

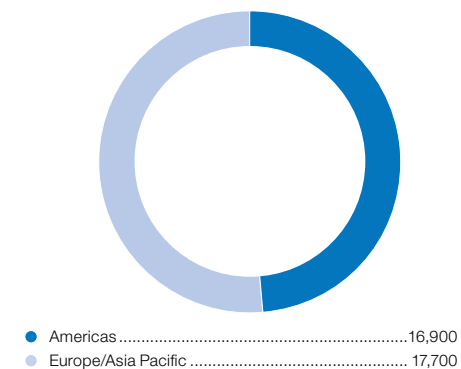
Concerns reported

(number of concerns)



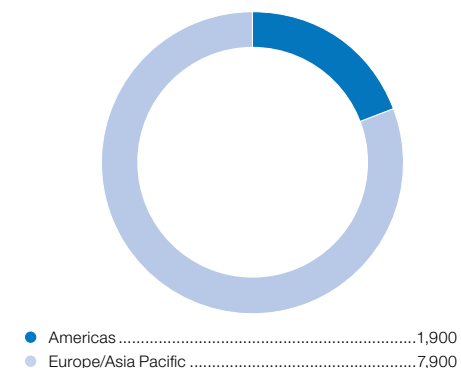
Employees trained in CoBC 2019

(Total: 34,600)



Employees trained in ACT 2019

(Total: 9,800)



Concerns reported by type 2019

(% of total concerns)



Integrity - continued

Ensuring high standards of corporate governance

We are widely recognised as a leader in corporate governance and we continuously review our governance structures and arrangements to ensure that these are of the highest standards. Full details of our governance policies and structures can be found on pages 60-73 of the 2019 Annual Report and Form 20-F and in the Governance Appendix (both documents are available on www.crh.com)

The Board

The CRH Board is responsible for the leadership, oversight, control, development and long-term success of the Group. The Board works with management to consider specific issues relevant to the overall conduct of our businesses – including strategy, safety, geopolitical issues, sustainability, budgets and major acquisitions and disposals.

As of 31 December 2019, there are two executive and ten non-executive Directors on the CRH Board, 42% of which are women. The independence of non-executive Directors is considered annually and the Board has determined that each non-executive Director is independent. The spread of nationalities of the Directors reflects the geographical reach of the Group and we ensure the Board has the appropriate blend of skills, knowledge and experience, from a wide range of industries, regions and backgrounds, necessary to lead the Group. In 2019, there were 6 full meetings of the Board.

Board Committees

The Board has established six permanent Committees to assist in the execution of its responsibilities. The current permanent Committees are the Acquisitions Committee, the Audit Committee, the Finance Committee, the Nomination & Corporate Governance Committee, the Remuneration Committee and the Safety, Environment & Social Responsibility Committee (SESR). The role of these Committees is to provide strategic direction, oversight and assurance on the specific objectives set for each Committee. The Chairman of each Committee reports to the Board on its deliberations and minutes of all Committee meetings are circulated to all Directors.

Committee Chairs also attend the Annual General Meeting to answer any questions from shareholders. Current membership and the terms of reference of each Committee are available on www.crh.com

Board renewal, development and evaluation

Renewal of the CRH Board is an ongoing and dynamic process, with the focus being on ensuring that the Board includes a diverse group of individuals based on a broad set of factors and that renewal is aligned with CRH's strategy and the needs of the business. All newly appointed Directors receive extensive briefing materials and the Chairman agrees an individually-tailored and comprehensive induction programme. Individual Director performance is reviewed annually by the Chairman.

A review of Board effectiveness is carried out by the Senior Independent Director on an annual basis. This review considers the operation and performance of the Board and its Committees, and the effectiveness of Board communications. This annual process is supplemented with an external evaluation by an external provider every three years.

Compliance

We have clear procedures to ensure compliance with our obligations under the applicable rules and regulations, including those issued by the Securities & Exchange Commission. In 2019, we implemented the 2018 UK Corporate Governance Code.

42%

As at 31 December 2019, 42% of our Board of Directors are women.

Our stakeholders tell us:



CRH has been a long-standing member of our Joint Center Policy Advisory Board, and very active in our Remodeling Futures research program. Sustainability concerns and related policy options for the broader housing industry are decades-long critical focus areas. Having a partner like CRH has been enormously helpful in our endeavours."

Kermit Baker

Project Director for Remodeling Futures Program, Joint Center for Housing Studies, Harvard University

Sustainability governance and advocacy

What are the challenges and how are we managing them?

The recent focus on corporate social responsibility and sustainability governance increases an organisation's responsibility and accountability to their stakeholders. This challenges industries to improve best practices for corporate governance with the aim of enhancing their relationships with stakeholders. We will continue to embed all aspects of sustainability into our business strategy, at all times incorporating stakeholder feedback.

Integrity - continued

Ensuring high standards of corporate governance – continued

Sustainability governance

At CRH, sustainability is embedded in our business strategy. Overseen by the Board, the Group Chief Executive has overall responsibility for CRH's sustainability performance and for ensuring sustainability policies are implemented in all business lines.

The Board has an established permanent committee to deal with safety, environment and social responsibility matters. The SESR Committee receives regular updates in each of these areas and is responsible for monitoring the Group's performance in these areas. The Board also receives regular updates in sustainability matters including environment, health, safety and social performance.

Health & safety

During 2019, the Board and the SESR Committee monitored developments in the area of safety, including considering reports on the background to, and learnings from, serious accidents. They also monitored the implementation of recommendations from an external advisory panel, the rollout of CRH's frontline leadership programme, the implementation of policies in relation to contractor management and energy isolation and the ongoing work to reinforce roles, responsibilities and expectations in the area of safety.

Inclusion & diversity

The SESR Committee is responsible for working with management, and monitoring progress, in relation to I&D below Board level. The approach to I&D is based on four initial workstreams (Communication; Education & Awareness; People & Practices; and Data & Measures) and includes the development of programmes to address unconscious bias, toolkits to supplement recruitment guidelines, best practices and KPIs. The Committee receives regular reports on progress towards each priority objective on the I&D roadmap.

Workforce engagement

The Board has designated the SESR Committee with responsibility for stakeholder engagement, including with the workforce, to ensure that the views of all stakeholders are understood and are taken into consideration in its decision-making process.

To facilitate its work in this area, the SESR Committee has commenced a number of important initiatives. These include increasing Board members' engagement with employees, the establishment of a workforce engagement project team, made up of a cross section of employees from across our global business, and increased SESR Committee attendance at employee development programmes, forums and conferences.

Monitoring our sustainability policies

Policy implementation and monitoring is a management responsibility across all businesses. Managers are assisted by safety officers, environmental liaison officers, country compliance coordinators and human resource managers. Sustainability risks are integrated into ERM processes to ensure effective monitoring and management.

We monitor and report sustainability performance, including financial and non-financial KPIs, at business level and centrally through the sustainability team. As part of our commitment to full and transparent reporting, we communicate progress against key safety, social and environmental indicators in both our Annual Report and our annual Sustainability Report.

SESR Committee Topics

<p>Safety</p> 	<ul style="list-style-type: none"> • Regular safety updates covering policies, action plans, and the background, impact and required remediation actions in relation to any serious incidents
<p>Sustainability</p> 	<ul style="list-style-type: none"> • 2020 and 2030 sustainability targets • The role of industry groups in the area of sustainability • Trends in the built environment
<p>Social Responsibility</p> 	<ul style="list-style-type: none"> • Inclusion & Diversity • Stakeholder engagement roadmap, including workforce engagement • Corporate purpose
<p>Reporting</p> 	<ul style="list-style-type: none"> • Annual and Sustainability Reports • Updates in relation to stakeholder regulatory expectations

Integrity - continued

Creating economic value

Our business model centres on making our core businesses within all Divisions and regions better through continuous improvement to create further long-term value. We continue to actively invest in and allocate capital to acquisitions and initiatives which improve our existing business portfolio.

Our strong portfolio

By balancing our portfolio across geography, product, sector and end-use, we reduce the impact of low demand at the bottom of any one economic cycle. The recycling of capital into areas offering better returns and/or superior growth is deeply embedded into our business model. We constantly monitor how capital is deployed to create maximum long-term value.

Our focus on maintaining strong financial discipline and cash generation allows us to further invest in our businesses and to take advantage of opportunities for value-adding investments as they arise.

Active portfolio management

We have a continuous focus on identifying and acquiring strong businesses that complement our existing portfolio of building materials businesses and add value for our stakeholders.



Further detailed information on how we create economic value may be found in the 2019 Annual Report and Form 20-F available on www.crh.com

We undertake extensive sustainability due diligence for all acquisitions, recognising strong performance across environmental, social and governance (ESG) issues as a key indicator of a well-run business.

In developing markets, we place particular focus on ensuring strong governance is in place, including human rights and other relevant social and ethical requirements.

In 2019, we continued to reshape our portfolio through the divestment of our Europe Distribution business in October for €1.6 billion. In addition, we also completed the divestment of our European Shutters & Awnings business for €0.3 billion and our Perimeter Protection business for €0.1 billion. In December we divested our share of My Home Industries Limited (MHIL), our Indian joint venture, for a total deferred consideration of €0.3 billion. These divestments were in line with our focus on reallocating capital to sectors, geographies and businesses more aligned with our current strategy and sustainable business model.

Economic value CRH created for stakeholders in 2019 included:

- €4.0bn EBITDA*
- €1.6 billion profit after tax
- 202.2 cent EPS
- 10.1% RONA**
- €325 million in taxes paid

Financial figures are generally based on continuing operations only and do not include the Europe Distribution businesses which were divested in 2019.

*EBITDA is defined as earnings before interest, taxes, depreciation, amortisation, asset impairment charges, profit on disposals and the Group's share of equity accounted investments' profit after tax.

**Return on Net Assets (RONA) is a key internal pre-tax measure of operating performance throughout the CRH Group and can be used by management and investors to measure the relative use of assets between CRH's business segments and to compare to other businesses. RONA is calculated by expressing total Group operating profit as a percentage of average net assets.

Our stakeholders tell us:



Companies must be deliberate and committed to embracing purpose and serving all stakeholders – your shareholders, customers, employees, and the communities where you operate. In doing so, your company will enjoy greater long-term prosperity, as will investors, workers, and society as a whole.”

Larry Fink
Chairman and Chief Executive Officer, BlackRock

Economic value creation

What are the challenges and how are we managing them?

Ensuring capital is continuously recycled from low growth areas into higher growth parts of our business is an ongoing priority because it potential for stronger growth and returns. We balance our business portfolio across geographies, products, sectors and end-uses to protect the Group from potential impacts at the bottom of any one economic cycle and ensure that our businesses are closely aligned with our current strategy and business model.

Our sustainability performance

Reporting history, scope and basis	62
Sustainability policies	63
Progress against 2020 sustainability targets and ambitions	64
Data in summary	65
GRI index	69
Assurance statement	77
External recognition and benchmarks	79

Ergon, part of our Europe Materials Division, has succeeded in producing a 36m-long Ultra High-Performance Concrete (UHPC) element bicycle/pedestrian bridge that will replace one of Belgium's first pre-stressed concrete bridges connecting Schaerbeek and Halle. It will be the very first bridge made from UHPC in the country's history, and the longest single-piece UHPC bridge in Europe. The bridge consists of a thin slab, 36m long and 4m wide, supported by two slender ribs no thicker than 10cm. UHPC allows for this slimmer design, rivaling the strength of a conventional concrete bridge.



We understand that a strong sustainability performance is a key driver in a competitive market and can lead to increased business opportunities. To consistently build on our performance, we monitor our progress across all key areas of sustainability and make ourselves accountable to our stakeholders in a transparent way.”

Naomi Cooper
Head of Sustainability, CRH Group



Our sustainability performance - continued

Reporting history, scope and basis

History

We published our first report on our sustainability performance in October 2004.

This Sustainability Report, published in 2020, covers our activities during 2019 and KPIs cover the period January 2019 to December 2019. It is CRH's 17th annual report on sustainability and our 15th Sustainability Report.

Independent assurance

Our report has been independently assured every year since 2005. You can find a detailed assurance statement on pages 77-78.

Our focus on maintaining strong financial discipline and cash generation allows us to further invest in our businesses and to take advantage of opportunities for value-adding investments as they arise.

Global Reporting Initiative (GRI)

We have voluntarily adopted sustainability reporting guidelines developed by GRI. This report has been prepared in accordance with the GRI Reporting Standards Comprehensive Option. The GRI content index is provided from page 69.

Reporting scope and basis for reporting

This report is based on data from 100% of our subsidiaries covering the calendar year 2019. Our principal subsidiaries are listed on pages 260-263 of the CRH Annual Report and Form 20-F 2019. 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 264 of the CRH Annual Report and Form 20-F 2019. Most of these companies supply sustainability data to the

Group. We include key data on an appropriate % shareholding basis at points throughout this report.

Data has been collated from over 3,100 locations spread across 30 countries. We have a robust data collection and management process in place, as assured by DNV GL for specific KPIs. Our basis for reporting follows the GCCA definitions and GRI definitions, and these are publicly available at www.gccassociation.org and www.globalreporting.org, respectively. Metric units are used throughout, unless stated otherwise.

This Sustainability Report has been informed by formal internal reports to the CRH Board on sustainability performance and was reviewed and approved by the Safety, Environment and Social Responsibility 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 ensures we identify and report on the most material topics related to our business (see pages 15-16).

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 CO₂ emissions from cement activities, we use the WBCSD Cement Sustainability Initiative 'Cement CO₂ and Energy Protocol, Version 3.1, CO₂ Emissions and Energy Inventory'. In this methodology, CO₂ from biomass fuels is considered climate neutral. We calculate CO₂ emissions from other activities using appropriate emission factors and in line with the World Resources Institute Greenhouse Gas Protocol (Revised Edition). We calculate Scope 2 emissions from electricity in line with the location-based method of the World Resources Institute Greenhouse Gas Protocol Scope 2 Guidance (2015), using International Energy Agency 'Emissions Factors 2019' (published in 2020) and eGRID 'Summary Table 2018' for emissions factors (published in 2019). We calculate Scope 3 emissions 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 2019'. CO₂ reduction targets have a base year of 1990 in line with the Kyoto Protocol.

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 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 page 66 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. Air emissions reduction targets have a base year of 2006, as the targets were agreed in 2007 and 2006 was the latest full year for which data was available.

For reporting of water, we used the GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing. For reporting of accidents and fatalities, we use the GCCA 'Sustainability guidelines for the monitoring and reporting of safety in cement'.

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 pressure 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 30 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, help 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 2019, we participated in consultation processes with sustainability reporting standard bodies. 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.

Our sustainability performance - continued

Sustainability policies

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 things we do, from the products we produce, our culture of safety, to engaging with stakeholders. Our high standards are underpinned by our unwavering values, including putting safety first, continuously creating value and leading with integrity.

We set policies in key sustainability areas at Group level, covering Health and Safety, Social and Environment. Our management team works closely with our businesses in implementing these Policies, reinforcing our guiding principles and ensuring that our vision, mission and values are shared across the globe. The 'Statement of Policy' for each of these key sustainability areas can be seen here.



Health and Safety Statement of 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 Statement of Policy

The CRH Social Policy, applied across all operating companies, is to:

- Comply at a minimum, with all applicable legislation and continuously improve our social stewardship, aiming all the time 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



Environmental Statement of Policy

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

- Comply, at a minimum, with all applicable environmental legislation and continually improve environmental management, always striving to meet or exceed industry best practice standards, monitoring and reporting performance to ensure Policy compliance
- Maintain open communications and ensure that our employees and contractors adhere to their environmental responsibilities
- Proactively address the challenges of climate change
- Reduce emissions and optimise our use of energy, water, land and other resources
- Promote sustainable product and process innovation and new business opportunities
- Develop positive relationships with stakeholders and strive to be good neighbours in every community in which we operate

Our sustainability performance - continued

Progress on 2020 sustainability targets and ambitions

Our Group-level 2020 targets span our environmental, social and economic performance across the value chain. These targets focus our efforts on the areas that are most important for our business and society and manage our sustainability risks and opportunities across key areas such as safety, energy efficiency and biodiversity management.

As we look beyond 2020, we are putting in place even higher standards across our sustainability performance. We have set ambitious 2030 objectives and focus sustainability targets to challenge ourselves and measure progress (see pages 10-13). We will continue to work with others to focus on those areas where we can drive the biggest change and support global institutions such as the Paris Agreement and the UN SDGs (see page 14).

Areas	2020 target	Status	Comment
Safety	Zero fatalities	✓	Ongoing target
Employee engagement	95% of employees to receive training	✓	Achieved and integrated into ongoing management requirements
Business conduct	95% of relevant employees to have been trained in Code of Business Conduct (CoBC)	✓	Ongoing target
Community engagement	90% of relevant companies to have Community Engagement Plans	✓	On track for delivery by end of 2020
Supply chain	100% of relevant suppliers to be compliant with the Supplier Code of Conduct	✓	Ongoing target
Environment	90% of relevant locations to have a permitted/certified environmental management system	✓	On track for delivery by end of 2020
	Recent acquisitions to be integrated into environmental roadmaps	✓	Achieved ahead of 2020
Climate	Specific reduction in CO ₂ emissions (25% by 2020 on 1990 levels, designated plants)	✓	Achieved ahead of 2020
	Specific reduction in particulates (dust) emissions (80% by 2020 on 2006 levels, designated plants)	✓	Achieved ahead of 2020
Air	Specific reduction in NO _x emissions (22% by 2020 on 2006 levels, designated plants)	✓	Achieved ahead of 2020
	100% clinker to be produced with monitoring of minor emissions	✓	On track for delivery by end of 2020
Waste	95% of relevant companies to have waste reduction/recycling programmes	✓	On track for delivery by end of 2020
Water	75% of relevant companies to have water efficiency and quality programmes	✓	On track for delivery by end of 2020
Biodiversity	90% of relevant locations in sensitive areas for biodiversity to have a biodiversity management plan	✓	On track for delivery by end of 2020
	100% of relevant extractive sites to have a restoration plan	✓	On track for delivery by end of 2020

Our sustainability performance - continued

Data in summary

NOTES: Data refers to Subsidiaries on a 100% basis unless otherwise stated. Refer to www.gccassociation.org for definitions of GCCA KPIs.

- (1) KPIs for Climate Change, Alternative Fuels & Materials, Emissions, Minor Emissions and Water (with an exception) include subsidiaries on a 100% basis together with joint ventures and associates on a percentage shareholding basis, excluding Kunda.
- (2) KPIs for Health & Safety, Emissions Monitoring and Local Impacts include only cement subsidiary companies.
- (3) KPI for % of sites with a water recycling system including subsidiaries on a 100% basis together with joint ventures and associates on a 100% basis, excluding Kunda.
- (4) "Accident", in the context of safety statistics, refers to a non-fatal work-related injury to a company's, contractor's or sub-contractor's employee working at a CRH location (office, production, distribution, etc.) or contract location, or in work-related transit from or between those locations, leading to an absence of one or more days (or shifts) from work (not counting the day of the accident).
- (5) "Fatality" refers to the Work-related death of a company's, contractor's or sub-contractor's employee at a CRH location (office, production, distribution, etc.) or contract location. Exemptions to reporting are in accordance with the GCCA Guidelines and in summary include death due to natural causes, death due to criminal or illegal acts or death while in transport to and from work.
- (6) "Recordable incidents" refers to all injuries (both on-site and off-site) including fatalities, accidents and all injuries requiring medical treatment (but not first aid) to a company's, contractor's or sub-contractor's employee working at a CRH location (office, production, distribution etc.) or contract location, or in work-related transit from or between those locations.

Social

Safety	2019	2018	2017	Comment
Number of fatalities (directly employed)	0	0	0	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Fatality rate per 10000 (directly employed)	0	0	0	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Number of fatalities (indirectly employed)	0	1	1	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Number of fatalities (involving 3rd parties)	0	0	0	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Number of lost time injuries (directly employed)	35	34	18	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Number of lost days (directly employed)	859	1357	594	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
LTI rate per 1m man-hours (directly employed)	1.87	1.95	1.19	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Severity rate per 1m man-hours (directly employed)	46	79	39	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Severity rate per 1m man-hours (directly and indirectly employed for all Group subsidiary companies)	34	39	45	
Number of lost time injuries (indirectly employed)	29	19	27	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Lost time injuries per 1m man-hours (indirectly employed)	1.00	0.69	1.14	GCCA KPI for Health/Safety. Refers to cement plants only. See note 2 for details.
Employment	2019	2018	2017	Comment
New employees by region				
America	74%	64%	63%	
Europe	25%	35%	36%	
Asia	1%	1%	1%	
New employees by gender				
Male	86%	85%	83%	
Female	14%	15%	17%	
Employee turnover by gender				
Male	87%	86%	83%	
Female	13%	14%	17%	
Length of service				
<1 year	15%	15%	15%	
1-4 years	29%	29%	29%	
5-9 years	16%	15%	15%	
10-14 years	12%	14%	13%	
15-19 years	10%	10%	10%	
20-24 years	7%	7%	7%	
>25 years	11%	10%	11%	
Employees by category				
Operations	70%	69%	69%	
Clerical/Admin	18%	20%	20%	
Managerial	12%	11%	11%	
Training and Education	2019	2018	2017	Comment
Employee Training by Category (% of total training hours)				
Operations	76%	71%	72%	
Clerical/Admin	13%	16%	15%	
Management	11%	13%	13%	
Percentage of employees receiving career development reviews				
Operations	28%	28%	25%	
Clerical/Admin	29%	25%	32%	
Management	54%	51%	43%	

Our sustainability performance - continued

Data in summary
(continued)

Local Communities	2019	2018	2017	Comment
Donations	€6.5m	€4.9m	€4.2m	
Civic & Community	51%	42%	49%	
Other	21%	20%	14%	
Community Development & Environment	13%	17%	19%	
Education & Research	11%	17%	13%	
Arts & Culture	3%	4%	4%	
Job Creation	1%	0%	1%	
% of sites with community engagement plans in place	88%	86%	85%	GCCA KPI for Local Impacts. Refers to cement plants only. See note 2 for details.

Environmental

Energy	2019	2018	2017	Comment
Energy efficiency (kcal per kg of clinker)	890	899	876	GCCA KPI for Alternative Fuels & Materials. Refers to cement plants only. See note 1 for details
% fuel substitution for virgin fuels	31.1%	30.3%	39%	GCCA KPI for Alternative Fuels & Materials. Refers to cement plants only. See note 1 for details
% biomass in kiln fuel	9.2%	9.7%	11%	GCCA KPI for Alternative Fuels & Materials. Refers to cement plants only. See note 1 for details
Renewable electricity purchased by CRH (GWh)	1,849	1,101	828	
Emissions	2019	2018	2017	Comment
Total gross CO₂ emissions (million tonnes)	29.9	30.4	23.3	GCCA KPI for Climate Change. Refers to cement plant only. See note 1 for details.
Total net CO₂ emissions (million tonnes)	27.5	28.1	21.4	GCCA KPI for Climate Change. Refers to cement plant only. See note 1 for details.
Specific gross CO₂ emissions (kg per tonne of cementitious product)	641	644	624	GCCA KPI for Climate Change. Refers to cement plant only. See note 1 for details.
Specific net CO₂ emissions (kg per tonne of cementitious product)	590	595	572	GCCA KPI for Climate Change. Refers to cement plant only. See note 1 for details.
Total air emissions				
Total NO _x (tonnes)	44.6k	40.7k	38.5k	
Total SO _x (tonnes)	15.9k	14.6k	13.6k	
Total Particulates (dust) (tonnes)	5.5k	5.4k	5.8k	
NO_x by Activity (%)				
Cement	93%	92%	94%	
Materials	4%	4%	4%	
Lime	2%	3%	1%	
Concrete	<1%	1%	1%	
Building Products	<1%	<1%	<1%	
SO_x by Activity (%)				
Cement	93%	91%	91%	
Materials	4%	4%	5%	
Lime	3%	3%	2%	
Concrete	<1%	2%	2%	
Building Products	<1%	<1%	<1%	

Our sustainability performance - continued

Data in summary
(continued)

Emissions (continued)	2019	2018	2017	Comment
Particulates (dust) by activity				
Cement	57%	54%	58%	
Materials	32%	35%	33%	
Lime	6%	6%	3%	
Concrete	5%	5%	5%	
Building Products	<1%	<1%	<1%	
% clinker produced with monitoring of major and minor emissions	66.1%	75.4%	86.2%	GCCA KPI for Emissions Monitoring. Refers to cement plants only. See note 2 for details.
% clinker produced using continuous monitoring of major emissions	98.8%	94.3%	94.8%	GCCA KPI for Emissions Monitoring. Refers to cement plants only. See note 2 for details.
Particulates (dust)				GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Specific (g per tonne of clinker)	51	48	46	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Total (tonnes per year)	1,797	1,715	1,334	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Coverage rate	95.0%	94.7%	94.8%	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
NO_x				GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Specific (g per tonne of clinker)	1,189	1,072	1,368	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Total (tonnes per year)	42,180	38,630	39,391	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Coverage rate	95.0%	94.7%	94.8%	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
SO_x				GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Specific (g per tonne of clinker)	381	388	477	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Total (tonnes per year)	13,533	13,981	13,732	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
Coverage rate	95.0%	94.7%	94.8%	GCCA KPI for Major Emissions. Refers to cement plants only. See note 1 for details.
VOC/THC (total hydrocarbons including methane and ethane expressed as carbon)				GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Specific (g per tonne of clinker)	168	80	49	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Total (tonnes per year)	5,021	2,371	1,095	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
% of clinker produced with monitoring	84.3%	82.3%	77.9%	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
PCDD/F (sum of 17 congeners of NATO scheme expressed as I-TEQ)				GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Specific (mg per tonne of clinker)	29	27	54	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Total (mg per year)	880	807	1,218	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
% of clinker produced with monitoring	85.0%	83.8%	78.5%	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Hg (mercury and its compounds expressed as mercury)				GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Specific (mg per tonne of clinker)	24	20	24	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Total (kg per year)	738	617	552	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
% of clinker produced with monitoring	88.3%	85.60%	81.80%	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
HM1 (sum of cadmium and thallium and their compounds expressed as cadmium and thallium)				GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Specific (mg per tonne of clinker)	24	90	65	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Total (kg per year)	625	2,009	1,434	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
% of clinker produced with monitoring	73.3%	62.0%	76.7%	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
HM2 (sum of antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel and vanadium and their compounds expressed as antimony, arsenic, lead, chromium, cobalt, copper, manganese, nickel and vanadium)				GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Specific (mg per tonne of clinker)	785	359	292	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
Total (kg per year)	19,341	7,826	6,275	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.
% of clinker produced with monitoring	69.5%	60.4%	74.5%	GCCA KPI for Minor Emissions. Refers to cement plants only. See note 1 for details.

Our sustainability performance - continued

Data in summary
(continued)

Water	2019	2018	2017	Comment
Total water withdrawal	108.7m m ³	119.6m m ³	95.3m m ³	
Water withdrawal by source (%)				
Quarry Water	22%	22%	27%	
Surface water	25%	28%	25%	
Groundwater (well)	31%	32%	30%	
Utility (mains)	9%	8%	9%	
Rainwater	13%	10%	9%	
Water withdrawal by activity (%)				
Materials	75%	81%	78%	
Cement	21%	15%	17%	
Concrete	2%	2%	3%	
Lime	2%	2%	1%	
Building Products	<1%	<1%	1%	
Total water withdrawal by source	23.8m m ³	19.6m m ³	16.9m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Surface	7.7m m ³	8.7m m ³	6.9m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Groundwater	8.7m m ³	6.5m m ³	5.4m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Quarry	2.6m m ³	2.8m m ³	2.5m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Utility	0.7m m ³	1.0m m ³	1.0m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Rain	4.1m m ³	0.6m m ³	1.1m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Total water consumption (GWT for cement sector)	11.5m m ³	9.3m m ³	8.4m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
% of sites with a water recycling system	58%	51%	41%	GCCA KPI for Water. Refers to cement plants only. See note 3 for details.
Materials	2019	2018	2017	
Materials used by weight or volume (total)(tonnes)	438m	436m	425m	
Virgin raw materials (tonnes)	383m	385m	375m	
Associated process materials (tonnes)	7m	7m	8m	
Semi-manufactured components (tonnes)	47m	44m	42m	Includes alternative materials.
Packaging materials (tonnes)	342k	234k	188k	
% of alternative materials (clinker and cement)	14.7%	13.8%	14.9%	GCCA KPI for Alternative Fuels & Materials. Refers to cement plants only. See note 1 for details.
Clinker : cement ratio	77.3	78.3	77.5	GCCA KPI for Alternative Fuels & Materials. Refers to cement plants only. See note 1 for details.
Effluents and Waste	2019	2018	2017	
Water discharge by quality and destination	33.1m m ³	44.5m m ³	23.4m m ³	
% Discharged to surface water	86%	96%	79%	
% Discharge to public sewer and other	14%	4%	21%	
Total water discharge by destination	12.4m m ³	10.3m m ³	8.5m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Surface water	12.2m m ³	10.2m m ³	9.1m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Public sewer	0.1m m ³	0.1m m ³	0.4m m ³	GCCA KPI for Water. Refers to cement plants only. See note 1 for details.
Other	0.1m m ³	<0.1m m ³	<0.1m m ³	
Waste by type and disposal method (total)(Tonnes)	2.4m	2.3m	2.3m m ³	
Inert waste (tonnes)	1,531k	1,416k	1,481k	
Non-hazardous waste (tonnes)	784k	791k	715k	
Hazardous waste (tonnes)	62k	63k	66k	
Local impacts	2019	2018	2017	
% of active sites with quarry rehabilitation plans	90%	90%	85%	GCCA KPI for Local Impacts. Refers to cement plants only. See note 2 for details.
Number of active quarries within, containing or adjacent to areas designated for their high biodiversity value	33	30	25	GCCA KPI for Local Impacts. Refers to cement plants only. See note 2 for details.
% of sites with high biodiversity value where biodiversity management plans are actively implemented	82%	73%	68%	GCCA KPI for Local Impacts. Refers to cement plants only. See note 2 for details.

Our sustainability performance - continued

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 “p.” while “AR p.” refers to the page number within the CRH 2019 Annual Report and Form 20-F and “GA p.” refers to the CRH 2019 Governance Appendix. GRI covers all Group subsidiary companies, on a 100% basis. For details on external assurance conducted by DNV GL please see pages 77-78.

GRI 102 General Disclosures

GRI Code	Description	Reference	Comment
Organizational Profile			
102-1	Name of the organization	p. 69. See comment	CRH plc.
102-2	Activities, brands, products and services	p. 3, 17, 43, 44	
102-3	Location of headquarters	p. 69. See comment	Dublin, Ireland.
102-4	Location of operations	p. 3; AR p. 260-264, 268, 269	
102-5	Ownership and legal form	p. 3, 69. See comment	CRH is a public limited company, incorporated in Ireland.
102-6	Markets served	p. 3; AR p. 260-264, 268, 269	
102-7	Scale of organization	p. 3, 17, 38, 60; AR p. 2, 3, 8, 40-52, 268, 269	
102-8	Information on employees and other workers	p. 38, 40, 69. See comment	Note that 52% of employees are employed on permanent contracts, 2% on fixed term contracts, <1% on temporary contracts and 46% on another basis. As only <1% of staff are on temporary contracts, it is estimated that the standard gender breakdown - 14% female - applies to both permanent and temporary staff. It is estimated that 42% of part-time staff are female, while 14% of full-time staff are female. Note that the data in the charts on pages 38 and 40 includes both permanent and temporary employees.
102-9	Supply chain	p. 50-51	
102-10	Significant changes to the organisation and its supply chain	p. 69. See comment	No significant changes.
102-11	Precautionary approach or principle	p. 15, 16, 55, 69. See comment.	CRH takes sustainability considerations at operational level when developing and introducing products.
102-12	External initiatives	p. 7, 12, 20, 26, 29, 34, 40, 43, 45, 53	
102-13	Membership of associations	p. 20, 26, 29, 40, 43	
Strategy			
102-14	Statement from most senior decision-maker	p. 4	
102-15	Key impacts, risks and opportunities	p. 15, 16, 55	
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behaviour	p. 56, 57	
102-17	Mechanisms for advice and concerns about ethics	p. 56	
Governance			
102-18	Governance structure	p. 58; AR p. 56-59	
102-19	Delegating authority	p. 58, 59; AR p. 56-59	
102-20	Executive-level responsibility for economic, environmental and social topics	p. 59	
102-21	Consulting stakeholders on economic, environmental and social topics	p. 38, 47, 48; AR p. 60-62, 73	
102-22	Composition of the highest governance body and its committees	p. 58; AR p. 56-59, 71, 72	
102-23	Chair of the highest governance body	p. 58; AR p. 56, 60	
102-24	Nominating and selecting the highest governance body	p. 58; AR p. 60-63, 68-70	
102-25	Conflicts of interest	p. 58, 59; AR p. 60-63, 68-70; GA p. 2	
102-26	Role of highest governance body in setting purpose, values and strategy	p. 58, 59; AR p. 26, 27, 60-62, 70	
102-27	Collective knowledge of highest governance body	p. 58, 59; AR p. 56-59, 68-70	
102-28	Evaluating the highest governance body's performance	p. 58, 69; AR p. 56-59, 70.	For further details of the Board Effectiveness Review, refer to the Governance Appendix, available on www.crh.com
102-29	Identifying and managing economic, environmental, and social impacts	p. 59; AR p. 26-29	
102-30	Effectiveness of risk management processes	p. 55, 59; AR p. 26-29	
102-31	Review of economic, environmental and social topics	p. 10-13, 64; AR p. 20, 60-63	
102-32	Highest governance body's role in sustainability reporting	p. 62	
102-33	Communicating critical concerns	p. 56	
102-34	Nature and total number of critical concerns	p. 69; GA p. 2,3.	Confidentiality concerns: CRH does not disclose the minutes of Board meetings as this may include commercially-sensitive information.
102-35	Remuneration policies	AR p. 74-100	
102-36	Process for determining remuneration	AR p. 74-100	
102-37	Stakeholder's involvement in remuneration	AR p. 74-100	
102-38	Annual total compensation ratio	p. 69. See comment	Currently unavailable. CRH does not centrally collect data on the level of pay to each of its employees in all countries (required for median pay figure). CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
102-39	Percentage increase in annual total compensation ratio	p. 69. See comment	Currently unavailable. CRH does not centrally collect data on the level of pay to each of its employees in all operating countries (required for median pay figure). CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
Stakeholder Engagement			
102-40	List of stakeholder groups	p. 47, 48	
102-41	Collective bargaining agreements	p. 49	
102-42	Identifying and selecting stakeholders	p. 15, 16, 47, 48	
102-43	Approach to stakeholder engagement	p. 15, 16, 46-50, 52, 53	
102-44	Key topics and concerns raised	p. 15, 16, 46-53	
Reporting practice			
102-45	Entities included in the consolidated financial statements	p. 62; AR p. 260-264	
102-46	Defining report content and topic Boundaries	p. 15, 16, 62	
102-47	List of material topics	p. 15, 16	
102-48	Restatements of information	p. 70. See comment	No restatements.
102-49	Scope or aspect boundary changes	p. 70. See comment	No significant scope or boundary change.
102-50	Reporting period	p. 62	
102-51	Date of most recent report	p. 62	
102-52	Reporting cycle	p. 62	
102-53	Contact point for questions regarding the report	Back cover	
102-54	Claims of reporting in accordance with the GRI Standards	p. 62, 77	
102-55	GRI Content index	p. 69-76	
102-56	External assurance	p. 77, 78	

GRI 200 Economic Topics

GRI 201	Economic Performance		
103-1	Explanation of the material topic and its Boundary	p. 3, 4, 5, 6, 16; AR p. 1-3, 8	
103-2	The management approach and its components	p. 3, 5, 6, 17, 58-60, 62; AR p. 56-59	
103-3	Evaluation of the management approach	p. 3, 5, 6, 17, 58-60, 62; AR p. 56-59	
201-1	Direct economic value generated and distributed	€25.1 billion sales (p. 70; AR p. 1-3). See comment	CRH discloses financial information in the Annual Report and the Annual Report Form 20-F in line with International Financial Reporting Standards (IFRS). CRH also publishes a payments to Governments for Extractive Activities Report, available on www.crh.com .
201-2	Financial implications and other risks and opportunities due to climate change	p. 25-29; AR p. 18, 22, 110	
201-3	Defined benefit plan obligations and other retirement plans	p. 70; AR p. 136, 192-197. See comment	Information is not available on the level of participation in retirement plans as CRH does not collect this data centrally. CRH is currently developing its internal reporting in this area.
201-4	Financial assistance received from government	p. 70. See comment	No significant assistance.
GRI 202 Market Presence			
103-1	Explanation of the material topic and its Boundary	p. 3, 38, 70; AR p. 1-3. See comment	Note that the topics covered by the indicators within this aspect are managed through the Social Policy, evaluated and monitored through the Social Review, and the results of the Social Review are reviewed by the CRH Board.
103-2	The management approach and its components	p. 3, 38, 70; AR p. 1-3. See comment	Note that the topics covered by the indicators within this aspect are managed through the Social Policy, evaluated and monitored through the Social Review, and the results of the Social Review are reviewed by the CRH Board.
103-3	Evaluation of the management approach	p. 3, 38, 70; AR p. 1-3. See comment	Note that the topics covered by the indicators within this aspect are managed through the Social Policy, evaluated and monitored through the Social Review, and 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	p. 70. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
202-2	Proportion of senior management hired from the local community	p. 38, 70; AR p. 1-3. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 203 Indirect Economic Impacts			
103-1	Explanation of the material topic and its Boundary	p. 6, 7-9, 70. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
103-2	The management approach and its components	p. 6, 7-9, 70. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
103-3	Evaluation of the management approach	p. 6, 7-9, 71. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
203-1	Infrastructure investments and services supported	p. 7, 8, 9, 23, 71. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
203-2	Significant indirect economic impacts	p. 6, 7-9, 14, 23, 30, 32, 43, 45, 71. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
GRI 204	Procurement Practices		
103-1	Explanation of the material topic and its Boundary	p. 49-51	
103-2	The management approach and its components	p. 49-51	
103-3	Evaluation of the management approach	p. 49-51	
204-1	Proportion of spending on local suppliers	p. 50, 51, 71. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 205	Anti-corruption		
103-1	Explanation of the material topic and its Boundary	p. 56, 57; AR p. 72, 73, 102, 238	
103-2	The management approach and its components	p. 56, 57; AR p. 72, 73, 102, 238	
103-3	Evaluation of the management approach	p. 56, 57; AR p. 72, 73, 102, 238	
205-1	Operations assessed for risks related to corruption	p. 56, 57, 71; AR p. 72, 73, 102.	100% of operations are assessed for risks related to corruption. Further details on risks are disclosed in the 2019 Annual Report on Form 20-F.
205-2	Communication and training on anti-corruption policies and procedures	p. 56-58, 71; AR p. 73, 102, 172.	Some breakdowns requested by GRI are currently unavailable, including business partners.
205-3	Confirmed incidents of corruption and actions taken	p. 56, 57, 71. 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 2019. No contracts with business partners were terminated or not renewed due to violations related to corruption.
GRI 206	Anti-competitive Behaviour		
103-1	Explanation of the material topic and its Boundary	p. 56, 57	
103-2	The management approach and its components	p. 56, 57	
103-3	Evaluation of the management approach	p. 56, 57	
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	p. 56, 57, 71. See comment	Certain breakdowns required by GRI cannot be disclosed for confidentiality reasons.

GRI 300 Environmental Topics

GRI 301	Materials		
103-1	Explanation of the material topic and its Boundary	p. 28, 43, 45	
103-2	The management approach and its components	p. 28, 43, 45	
103-3	Evaluation of the management approach	p. 28, 43, 45	
301-1	Materials used by weight or volume	p. 28, 43, 45, 68, 71. See comment	Alternative raw materials are those that replace traditional raw materials. For CRH, the more significant alternative raw materials used are 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.
301-2	Recycled input materials used	p. 45	
301-3	Reclaimed products and their packaging materials	p. 71. See comment	Not applicable for CRH as most product (by weight) is delivered in bulk, without packaging.
GRI 302	Energy		
103-1	Explanation of the material topic and its Boundary	p. 15, 16, 26, 28, 30, 45, 62	
103-2	The management approach and its components	p. 28, 30, 45	
103-3	Evaluation of the management approach	p. 28, 30, 45	
302-1	Energy consumption within the organisation	p. 62. 200.8 PJ (55.8 TWh, p. 30)	In 2019, total energy was reported as 201.1 PJ; electricity 26.2 PJ, heating 174.9 PJ, cooling n/a, steam n/a. 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	p. 71. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
302-3	Energy intensity	p. 71. See comment	Energy intensity for cement is 890 kcal/kg clinker. Refers to kiln fuels (internal energy).
302-4	Reduction of energy consumption	p. 28, 30, 62, 71. 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	p. 28, 45, 71. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
GRI 303	Water and Effluents		
103-1	Explanation of the material topic and its Boundary	p. 16, 33	
103-2	The management approach and its components	p. 15, 16, 33	
103-3	Evaluation of the management approach	p. 15, 16, 33	
303-1	Interactions with water as a shared resource	p. 33	
303-2	Management of water discharge-related impacts	p. 33	
303-3	Water withdrawal	p. 33, 68, 72. See comment	None identified as significantly affected. 3.9m m ³ of water was abstracted from areas designated for water-stress. In 2019, total water withdrawal in areas of water stress was reported as 2.6m m ³ ; surface water 1.1m m ³ , groundwater 1.1m m ³ , quarry water 0.1m m ³ , rainwater 0.2m m ³ , utility water 0.1m m ³ . In 2019, total water withdrawal in areas of water stress was reported as 2.6m m ³ ; fresh water 2.6m m ³ and other n/a.
303-4	Water discharge	p. 33, 68, 72. See comment	In 2019, total water discharge was reported as 33.1m m ³ ; surface water 28.4m m ³ , sewer water 0.9m m ³ , and other 3.8m m ³ . In 2019, total water discharge was reported as 33.1m m ³ ; fresh water 28.4 m ³ and other 4.7m m ³ . In 2019, total water discharge in areas of water stress was reported as 0.1m m ³ ; fresh water 0.1 m ³ and other n/a.
303-5	Water consumption	p. 33, 68, 72. See comment	In 2019, total water consumption in areas of water stress was reported as 2.5m m ³
GRI 304	Biodiversity		
103-1	Explanation of the material topic and its Boundary	p. 16, 34, 35	
103-2	The management approach and its components	p. 15, 16, 34, 35	
103-3	Evaluation of the management approach	p. 15, 16, 34, 35	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	p. 34, 68, 72. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
304-2	Significant impacts of activities, products, and services on biodiversity	p. 34, 35	
304-3	Habitats protected or restored	p. 34, 35, 68, 72. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	p. 72. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 305	Emissions		
103-1	Explanation of the material topic and its Boundary	p. 13, 16, 26-28, 31	
103-2	The management approach and its components	p. 26-28, 31	
103-3	Evaluation of the management approach	p. 26-28, 31	
305-1	Direct (Scope 1) GHG emissions	p. 27, 62, 66	
305-2	Energy indirect (Scope 2) GHG emissions	p. 27, 62, 66, 72. See comment	Scope 2 emissions are calculated using the location-based method using country-specific International Energy Agency Factors; apart from for operations in the US where subregion-specific factors from eGRID are used. CRH does not centrally collect data on supplier specific factors, and hence a market-based calculation of Scope 2 emissions cannot be provided.
305-3	Other indirect (Scope 3) GHG emissions	p. 27, 62, 72. See comment	An assessment of Scope 3 GHG emissions was carried out during 2016, in line with the World Resources/WBCSD Institute Greenhouse Gas Protocol Corporate Value Chain (Scope 3) and CRH Scope 3 emissions reported for 2017 have been expanded to include contract transport, employee commuting, purchased goods and waste generated. Biogenic emissions are not included in the scope of the factors used.
305-4	GHG emissions intensity	p. 27, 72. See comment	Sales intensity in 2019 was 1.3 kg/€ revenue.
305-5	Reduction of GHG emissions	p. 27, 62	
305-6	Emissions of ozone-depleting substances (ODS)	p. 72. See comment	No significant emissions.
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	p. 13, 31, 62, 66, 67	
GRI 306	Effluents and Waste		
103-1	Explanation of the material topic and its Boundary	p. 16, 32, 33	

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
103-2	The management approach and its components	p. 15, 16, 32, 33	
103-3	Evaluation of the management approach	p. 15, 16, 32, 33	
306-1	Water discharge by quality and destination	p. 33, 68, 73. See comment	Water was discharged to: surface water (28.4m ³), sewer water (0.9m ³), and other (3.8m ³). Inclusive of this was 0.1m ³ of water abstracted from areas designated as 'high' or 'extremely high' risk for water-stress.
306-2	Waste by type and disposal method	p. 32, 68, 73. See comment	Breakdown of waste by: inert (1.53m tonnes), hazardous (0.76m tonnes) and non-hazardous (0.06m tonnes) and there were two methods of waste treatment: recycling (1.90m tonnes) and disposal (0.50m tonnes).
306-3	Significant spills	p. 73. See comment	No significant spills.
306-4	Transport of hazardous waste	p. 32, 73. See comment	Total hazardous waste was 62k tonnes. However, data in the breakdown requested by GRI is not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
306-5	Water bodies affected by water discharges and/or runoff	p. 73. See comment	None identified as significantly affected.
GRI 307	Environmental Compliance		
103-1	Explanation of the material topic and its Boundary	p. 25	
103-2	The management approach and its components	p. 25	
103-3	Evaluation of the management approach	p. 25	
307-1	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	p. 25, 73. See comment	There were no material non-monetary sanctions or material cases brought through dispute resolution mechanisms.
GRI 308	Supplier Environmental Assessment		
103-1	Explanation of the material topic and its Boundary	p. 49-51	
103-2	The management approach and its components	p. 49-51	
103-3	Evaluation of the management approach	p. 49-51	
308-1	New suppliers that were screened using environmental criteria	p. 49-51, 73. See comment	Note that CRH's Supplier Code of Conduct, available on www.crh.com, includes safety, environmental, labour practice, human rights, society and other people & 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.
308-2	Negative environmental impacts in the supply chain and actions taken	p. 49-51, 73. See comment	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 400 Social Topics

GRI 401	Employment		
103-1	Explanation of the material topic and its Boundary	p. 36-41	
103-2	The management approach and its components	p. 36-41, 49	
103-3	Evaluation of the management approach	p. 36-41, 49	
401-1	New employee hires and employee turnover	p. 65, 73. 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 43% and in the category "over 50 years" is 27%.
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	p. 41	Data on life insurance (I) and health care is not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
401-3	Parental leave	p. 73. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 402	Labour/Management Relations		
103-1	Explanation of the material topic and its Boundary	p. 41, 49, 73. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
103-2	The management approach and its components	p. 41, 49	
103-3	Evaluation of the management approach	p. 41, 49	
402-1	Minimum notice periods regarding operational changes	p. 41, 73. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
GRI 403	Occupational Health and Safety		
103-1	Explanation of the material topic and its Boundary	p. 18-23	

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
103-2	The management approach and its components	p. 16, 18-23	
103-3	Evaluation of the management approach	p. 16, 18-23	
403-1	Occupational health and safety management system	p. 20, 63	
403-2	Hazard identification, risk assessment, and incident investigation	p. 20-22, 63, 74. See comment	Absenteeism was 2.5% in total. It was 81% in the category "medically certified", in the category "medically uncertified" was 15%, in the category "other" was 2% and in the category "accidental injury" was 2%. The occupational illness rate was 0.20 cases per million man-hours. Accidents to females account for just 7% of all accidents and 5% of all work days lost in 2019. Accident data cannot be disclosed by region due to confidentiality concerns.
403-3	Occupational health services	p. 23	
403-4	Work participation, consultation, and communication on occupational health and safety	p. 22, 23	
403-5	Worker training on occupational health and safety	p. 22, 23	
403-6	Promotion of worker health	p. 23	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p. 23	
403-8	Workers covered by an occupational health and safety management system	p. 20, 22, 23, 63, 65	
403-9	Work-related injuries	p. 21, 74. See comment.	In 2019, 'employee only' FR was 1.3.
403-10	Work-related ill health	p. 23, 74. See comment.	Note that one breakdown required by GRI for this indicator is not available. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this indicator.
GRI 404	Training and Education		
103-1	Explanation of the material topic and its Boundary	p. 39, 57	
103-2	The management approach and its components	p. 39, 57	
103-3	Evaluation of the management approach	p. 39, 57	
404-1	Average hours of training per year per employee	p. 39, 65, 74. See comment.	Note that relevant training is provided equally to both genders.
404-2	Programs for upgrading employee skills and transition assistance programs	p. 39, 41	
404-3	Percentage of employees receiving regular performance and career development reviews	p. 39, 74. See comment	Note that performance reviews are provided equally to both genders.
GRI 405	Diversity and Equal Opportunity		
103-1	Explanation of the material topic and its Boundary	p. 8, 12, 40, 58; AR p. 69, 70	
103-2	The management approach and its components	p. 8, 12, 40, 58; AR p. 69, 70	
103-3	Evaluation of the management approach	p. 8, 12, 40, 58; AR p. 69, 70	
405-1	Diversity of governance bodies and employees	p. 8, 12, 40, 58, 65; AR p. 56-59, 67, 70	
405-2	Ratio of basic salary and remuneration of women to men	p. 74. See comment	Currently unavailable. CRH does not centrally collect data on pay to each of its employees in all operating countries by gender. CRH reviews annually the scope of data collection and where appropriate and practicable in future will gather and report on this topic.
GRI 406	Non-discrimination		
103-1	Explanation of the material topic and its Boundary	p. 40, 49	
103-2	The management approach and its components	p. 40, 49, 56	
103-3	Evaluation of the management approach	p. 40, 49, 56	
406-1	Incidents of discrimination and corrective actions taken	p. 74. See comment	There were a total of 8 alleged instances of discrimination in 2019, reported through our Social Review. All were investigated fully with policies and training reinforced wherever necessary and disciplinary action taken as appropriate.
GRI 407	Freedom of Association and Collective Bargaining		
103-1	Explanation of the material topic and its Boundary	p. 49-51	
103-2	The management approach and its components	p. 49-51	
103-3	Evaluation of the management approach	p. 49-51	
407-1	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be at risk	p. 49-51, 74. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 408	Child Labour		
103-1	Explanation of the material topic and its Boundary	p. 49-51	
103-2	The management approach and its components	p. 49-51	
103-3	Evaluation of the management approach	p. 49-51	

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
408-1	Operations and suppliers at significant risk for incidents of child labour	p. 49-51, 75. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 409	Forced or Compulsory Labour		
103-1	Explanation of the material topic and its Boundary	p. 49-51	
103-2	The management approach and its components	p. 49-51	
103-3	Evaluation of the management approach	p. 49-51	
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	p. 49-51, 75. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
GRI 410	Security Practices		
103-1	Explanation of the material topic and its Boundary	p. 49, 56, 63, 75. See comment	Group companies operate in accordance with the Social Policy and CoBC.
103-2	The management approach and its components	p. 49, 56, 63, 75. See comment	Group companies operate in accordance with the Social Policy and CoBC.
103-3	Evaluation of the management approach	p. 49, 56, 63, 75. See comment	Group companies operate in accordance with the Social Policy and CoBC.
410-1	Security personnel trained in human rights policies or procedures	p. 75. See comment	Note that in 2019, 33% of Group companies had security personnel on-site and 83% of companies provided human rights training to security personnel. Training is generally equally provided to security personnel that are the employees of third parties.
GRI 411	Rights of Indigenous Peoples		
103-1	Explanation of the material topic and its Boundary	p. 75. See comment	Not applicable. CRH does not have a presence in countries of concern.
103-2	The management approach and its components	p. 75. See comment	Not applicable. CRH does not have a presence in countries of concern.
103-3	Evaluation of the management approach	p. 75. See comment	Not applicable. CRH does not have a presence in countries of concern.
411-1	Incidents of violations involving rights of indigenous peoples	p. 75. See comment	Not applicable. CRH does not have a presence in countries of concern.
GRI 412	Human Rights Assessment		
103-1	Explanation of the material topic and its Boundary	p. 16, 49	
103-2	The management approach and its components	p. 16, 39, 49	
103-3	Evaluation of the management approach	p. 15, 16, 39, 49	
412-1	Operations that have been subject to human rights reviews or impact assessments	p. 49, 75. See comment	Note that 69% of companies carried out human rights assessments, similar to the past 3 years (Europe: 59%, Americas: 80%, Asia: 78%). The challenge of gender diversity was the only topic reported to have been identified.
412-2	Employee training on human rights policies or procedures	p. 39, 75. See comment	Note that in 2019 there were c.43,000 hours of training in human rights and 95% of relevant employees received training in human rights policies or procedures concerning aspects of human rights that are relevant to operations.
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	p. 51, 75. See comment	100% of significant investment agreements and contracts were screened in line with the supplier code of conduct which includes specific human rights clauses. Significant suppliers in this case are those who we deem to have a higher potential CSR risk because of the value of their contract with CRH, the location of the source of supply or some other risk factor.
GRI 413	Local Communities		
103-1	Explanation of the material topic and its Boundary	p. 16, 52, 53	
103-2	The management approach and its components	p. 16, 52, 53	
103-3	Evaluation of the management approach	p. 15, 16, 52, 53	
413-1	Operations with local community engagement, impact assessments, and development programs	p. 52, 53, 75. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI. CRH is currently developing its internal reporting in this area.
413-2	Operations with significant actual and potential negative impacts on local communities	p. 47, 52, 53, 75; AR p. 231. See comment	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.
GRI 414	Supplier Assessment for Labour Practices		
103-1	Explanation of the material topic and its Boundary	p. 50, 51	
103-2	The management approach and its components	p. 50, 51	
103-3	Evaluation of the management approach	p. 50, 51	

Our sustainability performance - continued

GRI Code	Description	Reference	Comment
414-1	New suppliers that were screened using social criteria	p. 50, 51, 76. See comment	100% of new suppliers were screened in line with the CRH Supply Code of Conduct. Where social risks were identified, additional screening was completed.
414-2	Negative social impacts in the supply chain and actions taken	p. 50, 51, 76. See comment	Not available. CRH does not centrally collect information to report on this indicator in the breakdowns required by GRI.
GRI 415	Public Policy		CRH is currently developing its internal reporting in this area
103-1	Explanation of the material topic and its Boundary	p. 76. See comment	Not applicable. No significant contributions.
103-2	The management approach and its components	p. 76. See comment	Not applicable. No significant contributions.
103-3	Evaluation of the management approach	p. 76. See comment	Not applicable. No significant contributions.
415-1	Political contributions	p. 76. See comment	Not applicable. No significant contributions.
GRI 416	Customer Health and Safety		
103-1	Explanation of the material topic and its Boundary	p. 44	
103-2	The management approach and its components	p. 44	
103-3	Evaluation of the management approach	p. 44	
416-1	Assessment of the health and safety impacts of product and service categories	p. 44	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	p. 76. See comment	None known.
GRI 417	Marketing and Labelling		
103-1	Explanation of the material topic and its Boundary	p. 44, 76. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
103-2	The management approach and its components	p. 44, 76. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
103-3	Evaluation of the management approach	p. 44, 76. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
417-1	Requirements for product and service information and labelling	p. 44	
417-2	Incidents of non-compliance concerning product and service information and labelling	p. 76. See comment	None known.
417-3	Incidents of non-compliance concerning marketing communications	p. 44, 76. See comment	The organisation has not identified any non-compliance with regulations and/or voluntary codes.
GRI 418	Customer Privacy		
103-1	Explanation of the material topic and its Boundary	p. 76. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
103-2	The management approach and its components	p. 76. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
103-3	Evaluation of the management approach	p. 76. See comment	Not material. The page references cover the topic in general terms rather than meet the precise requirements of the GRI for this indicator.
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	p. 76. See comment	In 2019, there were no substantiated complaints concerning breaches of customer privacy and losses of customer data.
GRI 419	Socioeconomic Compliance		
103-1	Explanation of the material topic and its Boundary	p. 56, 57. See comment	
103-2	The management approach and its components	p. 56, 57. See comment	
103-3	Evaluation of the management approach	p. 56, 57. See comment	
419-1	Non-compliance with laws and regulations in the social and economic area	p. 56, 57, 76. See comment	No significant fines.

DNV GL assurance statement

DNV GL assurance statement

Scope of engagement

DNV GL Business Assurance Services UK Limited (“DNV GL”, “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’s Sustainability Report 2019 (the “Report”) for the reporting year ended 31st December 2019.

Subject Matter

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

1. ISAE3000 Selected Information

The performance indicators included within the Report (the “Selected Information”), listed below:

Global Cement and Concrete Association (GCCA) indicators

- Climate Change: Total CO₂ emissions (Gross) (metric tonnes); and Total CO₂ emissions (Net) (metric tonnes);
- Emissions Monitoring: % Clinker produced with monitoring of major and minor emissions; and % Clinker produced using continuous monitoring of major emissions; % CO₂ emissions covered;
- Emissions: Particulates, specific (g/tonne of clinker); Particulates, total (tonnes per year); NO_x, specific (g/tonne of clinker); NO_x, total (tonnes per year); and SO_x, specific (g/tonne of clinker); SO_x, total (tonnes per year); NO_x, SO_x and Particulates emissions coverage rate (%);
- Minor Emissions: VOC/THC, specific (g/tonne of clinker); VOC/THC, total (tonnes per year); PCDD/F, specific (ng/tonne of clinker); PCDD/F, total (mg per year); Hg, specific (mg/tonne of clinker); Hg, total (kg per year); HM1, specific (mg/tonne of clinker); HM1, total (kg per year); HM2, specific (mg/tonne of clinker); and HM2, total (kg per year);
- Water: Total water withdrawal by source; total water consumption; and total water discharge;

- Health and Safety: Number of fatalities (directly and indirectly employed); Fatality rate per 10,000 (directly employed); Number of fatalities (involving third parties); Number of lost time injuries (directly and indirectly employed); Lost Time Incident (LTI) rate per 1 million man hours (directly and indirectly employed); Number of lost days (directly employed); and Severity rate per 1 million man hours (directly employed).

Group level indicators

- Environment: Total greenhouse gas (GHG) emissions (Scopes 1, 2 & 3) (million tonnes); Total NO_x emissions (thousand tonnes); Total SO_x emissions (thousand tonnes); Total Particulates emissions (dust) (thousand tonnes); and Total water withdrawal (million m³); and
- Health and Safety: Group fatalities (directly and indirectly employed); Group lost time injuries; Group LTI; and Group severity rate.
- Social: Total number of employees (headcount).

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 page 65 of the Report.

2. AA1000 Principles

The nature and extent of adherence of the Report to the AA1000 AccountAbility principles of inclusivity, materiality and responsiveness (the “AA1000 Principles”). To assess the AA1000 Principles we have used the publicly available AA1000 AccountAbility Principles (AA1000AP) 2018 (the “Principles Criteria”).

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 2018 (the “Consolidated set of GRI Sustainability reporting standards 2018”).

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 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 “Comprehensive” requirements of the GRI Standards 2018.

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) 2008. For consistency, in this Assurance Report we also refer to this scope as limited assurance.

DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - 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:

- 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 levels, 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;
- Visits to sites selected in conjunction with CRH, including: Ash Grove Cement Company, (Foreman cement plant), USA; Ash Grove Cement Company, (Midlothian cement plant), USA; Oldcastle Infrastructure Inc., (Mansfield plant), USA; Cubis Systems Limited, (Lurgan plant), Northern Ireland; Trzuskawica S.A., (Sitkowska Lime Plant), Poland; Irish Cement Limited, (Platin cement plant), Ireland; Tarmac Cement and Lime Limited, (Dunbar cement plant), Britain; EQIOM Cement, (Héming cement plant), France; to review 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

DNV GL assurance statement - continued

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 based on whether the site was a legacy plant or a recent acquisition. The percentage contribution of cement plants visited to overall cement-related CO₂ gross emissions was 12.0%.

- Visiting CRH's headquarters in Dublin (Ireland) to review the processes for gathering and consolidating the Selected Information and checking its consolidation;
- Reviewing that 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 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.

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 GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Report.

Our competence, independence and quality control

DNV GL established policies and procedures are designed to ensure that DNV GL, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV GL) 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 GL

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.

Our responsibility is to plan and perform our work to obtain limited assurance about:

- Whether the Selected Information has been prepared in accordance with the Data Criteria and to report to CRH in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained; and
- Whether the Report is in adherence to the AA1000 Principles as described in the Principles Criteria, and comment on the nature and extent of each individually.

We have not been responsible for the preparation of the Report.

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 senior management commitment to sustainability performance, and there continued to be a thorough review of performance at Board level
- 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.
- CRH continues to optimise its data collection processes and it was noted that the major and minor air emissions data reporting systems were further streamlined in 2019
- We noted CRH continues to gather data that enables reporting of CRH's Scope 3 GHG emissions data. We recommend that CRH expands the scope of reporting for this indicator to include business travel for non-production sites.
- We noted a small number of immaterial corrections to Selected Information data submitted from sites visited. Updated data was provided in all cases and incorporated correctly in consolidated data presented in this Report.

2. AA1000 Principles

- Inclusiveness: CRH engages with a wide range of stakeholders, at site as well as Group level. Feedback from stakeholders interviewed was largely positive.

- Materiality: CRH undertook an updated materiality process in 2019, as a result of which the placement of some of its material issues was adjusted based on stakeholder feedback.
- Responsiveness: Information received from the Stakeholder interviews we conducted demonstrated a high level of responsiveness to stakeholder feedback.

DNV GL Business Assurance Services UK Limited

London, UK

27th of March 2020

DNV GL Business Assurance Services UK Limited is part of DNV GL – Business Assurance, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. www.dnvgl.co.uk/BetterAssurance



AA1000
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Our sustainability performance - continued

External recognition and benchmarks



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Note on forward-looking statements

In order to utilise the “Safe Harbor” provisions of the United States 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.

This document contains certain forward-looking statements with respect to the financial condition, results or operations, business, viability and future performance of CRH and certain of the plans and objectives of CRH.

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: economic and financial conditions generally in various countries and regions where we operate; the pace of recovery in the overall construction and building materials; 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.



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**We welcome feedback and comments from
stakeholders on our sustainability reporting.**

Cover image: Stradus, part of our Building Products Division, supplied c.1,000 Hydro Lineo XL grass tiles to pave the surroundings of an office complex in Doornik, Belgium. The lattice structure allows water to slowly drain away, keeping the surface free from water while not overloading drainage systems.