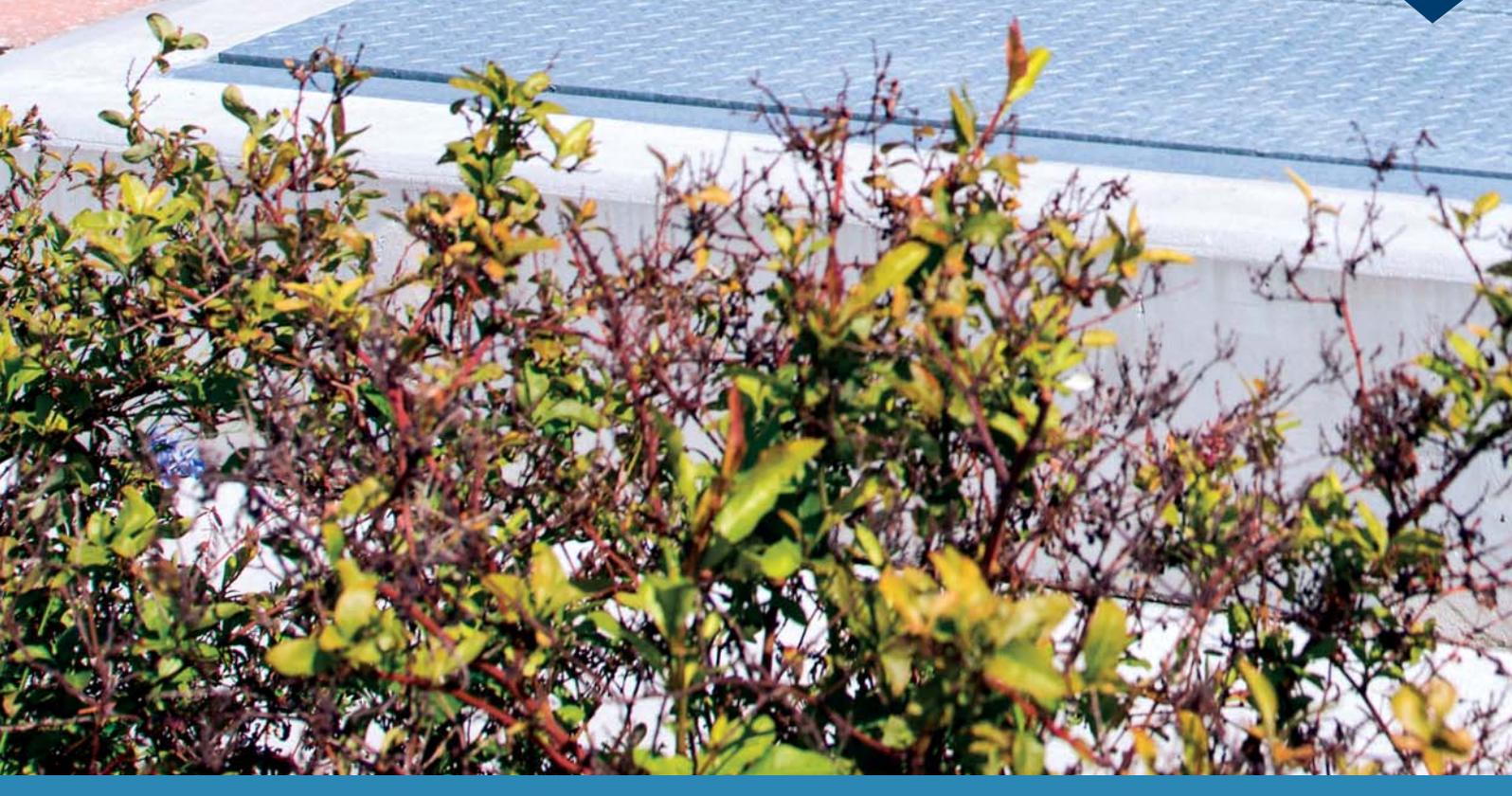




# SUSTAINABILITY REPORT 2012

RESPONSIBLE PERFORMANCE & GROWTH





CRH is an international leader in the building materials sector and is committed to sustainably and responsibly managing all aspects of its operations relating to employees, customers, neighbours, local communities, shareholders and other stakeholders.

Sustainability and Corporate Social Responsibility concepts have been embedded as integral components of CRH's performance and growth strategy.

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CRH reports annually on its performance in this area and this is CRH's tenth such Report.

This Report relates to activities in 2012.

Data from 100% of Group Subsidiaries is included and data from joint ventures and/or associates is noted as appropriate on a percentage shareholding basis where relevant.



**Case Study:** Sustainability in Action: During 2012, Oldcastle completed installation of one of its cutting-edge precast products, a Storm Capture™ Module System, at the Tampa Bay Area Housing Authority "Encore" urban regeneration project in Florida, US. The Storm Capture™ system comprises a subsurface storm water retention structure, specifically engineered and designed to accommodate both the storm water storage capacity demands and the load-bearing needs of the land use above them. It harvests, treats and stores stormwater runoff, that is then used in irrigation of the 35 acres site. A solar array covers the open sand filter area. The front cover of this Report features (*left*) Wally Berner, Marketing Director (*center*) Mike Recker, VP of Engineering and (*right*) Jan Olsen, President, all of the Oldcastle Precast Meadow Burke Division, viewing the landscaped system, which also includes pavers manufactured by the Oldcastle Architectural Products Group. All new building units at Encore have been designed and registered under the U.S. Green Building Council LEED scheme and the Oldcastle products work together with other systems to achieve a sustainable, environmentally friendly, socially conscious redevelopment.

# Table of Contents

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1	A Message from the CEO
4	Sustainability in CRH
18	Health & Safety
28	Environment & Climate Change
46	Governance
54	People & Community
69	Appendices
71	DNV Assurance Statements
75	GRI Guidelines and Statement

## A Message from the CEO

"Since our first CSR Report was published 10 years ago, CRH has progressed and developed in all areas of sustainability and sought to ensure that the key elements are embedded within our business model."



Myles Lee

### Welcome

Welcome to our tenth annual report describing our approach to sustainability and corporate social responsibility (CSR) within our Group. On the world stage, during those ten years, global recognition of the need for sustainable development has increased, with wider understanding and acceptance leading to coordinated action in many areas. The scope of sustainability as a concept has extended from a relatively narrow focus to a broader approach integrating economic, social, environment and governance requirements within the sustainable development framework. In that time too, since our first report was published in 2004, CRH has progressed and developed in all areas of sustainability and has sought to ensure that the key elements are embedded within our business model. In our Materials Divisions, of particular note during 2012 was a substantial step-up in alternative fuel usage in our European cement operations and increased usage of recycled asphalt in our paving activities in North America. These initiatives mitigated cost inflation in energy-related inputs. For our Products Divisions, our ongoing portfolio review process is aimed at identifying those businesses which we wish to actively develop, those we wish to sustain for their ongoing cash generating characteristics and those which it

is appropriate to divest. Product innovation and sustainability is a key consideration in this review process.

We continue to measure and assess our performance both through recognised Key Performance Indicators and through dialogue with our stakeholders at all levels of our Group and throughout our businesses. As a core member of the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development ([www.wbcdcement.org](http://www.wbcdcement.org)), we also work with our industry peers both in benchmarking performance and in promoting sustainability.

We are pleased that during the year we maintained our distinguished record of being ranked among sector leaders by a number of prominent Socially Responsible Investment (SRI) rating agencies. CRH continues as a constituent member of the Dow Jones World and STOXX Sustainability Indexes and the FTSE4Good Index.

### Key Aspects of our Performance

#### Health & Safety

Health and safety remains a core focus of CRH operations. Our key accident frequency metric showed further improvement in 2012. In comparison with 2011, the number of accidents across the Group decreased by 11% and our accident frequency rate fell by 13%. Over a 10 year period, both accident frequency and severity rates have decreased by 75%.

Despite this, we deeply regret that three fatalities (two employees and one contractor) occurred within our subsidiaries during 2012. We continue to ensure that each incident is thoroughly understood, circumstances promptly identified and recommendations communicated and implemented across the Group. Our Fatality Elimination Plan remains a cornerstone of our health and safety strategy and is a fundamental element of the approach to safety within each and every one of our operations. New acquisitions are also fully integrated into our safety systems, structures and culture.

# A Message from the CEO

## Environment & Climate Change

CRH promotes a proactive approach to all environmental issues and our compliance with all applicable environmental laws and regulations remains at a very high level. We apply strict environmental due diligence procedures to new acquisitions which we seek to integrate quickly into the Group.

As part of our responsibilities as a member of the CSI, in 2007 CRH made a public commitment to a reduction in specific carbon dioxide emissions from our cement plants. This was followed with a commitment to reduce other air emissions from cement plants. I am pleased to report that CRH has achieved all of these targets a full three years ahead of the planned date. Specific carbon dioxide (CO<sub>2</sub>) emissions have been reduced by 15% on 1990 levels, nitrogen oxides (NO<sub>x</sub>) by 10% on 2006 levels and particulates by 50% on 2006 levels. This has been achieved through sustained investment in energy efficient processes and abatement systems, increased use of alternative fuels and raw materials and the technical development of lower carbon intensity products. We are now focusing on achieving our new public commitments in these areas by the target date of 2020.

## Governance

CRH retains its firm commitment to governance and business ethics. Honesty, integrity and respect for the law remain at the core of all our business interactions and in 2012, further progress was made in developing our governance systems. These included a strengthening of our compliance organisation together with an update of our Code of Business Conduct and associated guidelines. In addition, during the year, we enhanced our compliance & ethics training programmes and relaunched communication channels for reporting any suspected breaches.

## People & Community

CRH believes that continued sustainable business success depends on the excellent relationships maintained with stakeholders-

employees, customers, suppliers, neighbours and others. During 2012, on-going stakeholder dialogue at company, business platform and group level continued. Our companies support a wide variety of community initiatives and charitable partnerships and examples of these are profiled in this Report.

## Communication

Communications with all stakeholders is a priority throughout CRH and in 2012 we maintained our open door policy on stakeholder engagement. During the year, we communicated regularly with key stakeholder groups on a broad range of issues, from financial, business and development updates through to sustainability commitments and performance.

The independent verification of our sustainability and CSR reporting also demonstrates a strong commitment to sustainability and transparency. This 2012 Report has been verified in its entirety by DNV Business Assurance UK (DNV) to Global Reporting Initiative (GRI) A+ level. The verification process for this report included engagement with a number of community groups in order to assess how CRH is perceived in the community. These meetings proved most worthwhile and will continue as part of our future stakeholder engagement.

## Conclusion

Sustainability performance in CRH remains deeply rooted in our overall business strategy. For 2013 we plan to further assess key issues and identify links to add value to our businesses and so enhance our global sustainability performance.

I would like to acknowledge the dedication and efforts of everyone around the Group who continue to demonstrate full commitment to developing our performance and have enabled our many achievements in this area. We welcome feedback from all our stakeholders and we will continue to keep you informed of our sustainability progress.



Loaded railcars leave Oldcastle Material's newest greenfield quarry – Warren County – located in Camak, Georgia, US. The award-winning granite quarry incorporates the latest technology in operational control to promote sustainable use of resources – for example, 90% of water used in the energy efficient plant is recycled.

# Sustainability in CRH

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Sustainable business development is a fundamental objective of CRH. This section profiles CRH's approach to integrating sustainability and corporate social responsibility concepts into all aspects of its operations. It outlines CRH's history, distinctive culture, unique geographic, segmental and market balance and its global range of activities across 35 countries at over 3,500 locations. Further information on CRH's activities and performance is available in the CRH Annual Report 2012 and in the CRH 2012 Annual Report on Form 20-F filed with the US Securities & Exchange Commission, both available on [www.crh.com](http://www.crh.com)

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|---|---|
| <b>5</b> CRH Profile                                    | <b>11</b> Organisation Structure            |
| <b>6</b> Developing Sustainability                      | <b>12</b> Responsible International Leader  |
| <b>8</b> Sustainability across a Diversified Business   | <b>13</b> Performance 2012                  |
| <b>9</b> Areas of Sustainability Impact and Opportunity | <b>14</b> Development Strategy and Activity |
|   | <b>15</b> Communications                    |

## CRH Profile

**Sustainability and corporate social responsibility concepts are integral components of the Group's performance and growth strategy.**

CRH plc, a FTSE 100 and Fortune 500 company, is a diversified international building materials group which manufactures and distributes a broad range of building materials and products. CRH employs approximately 76,000 people at over 3,500 locations in 35 countries worldwide, mainly in Western Europe and North America as well as in developing economies in Eastern Europe, South America, China and India.

CRH's strategic vision is to be a responsible international leader in building materials, delivering superior and sustained shareholder returns. The Group is committed to managing all aspects of its business – relating to employees, customers, suppliers, neighbours, local communities, shareholders and other stakeholders – in a sustainable and responsible manner.

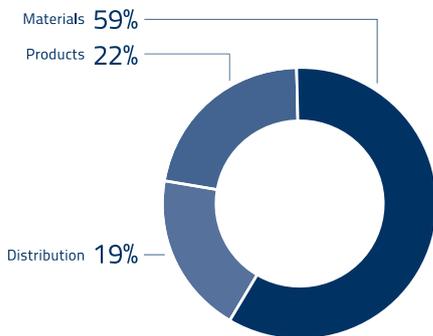
CRH is a constituent member of FTSE 100, ISEQ 20, Euro STOXX 50 the Euro STOXX Select Dividend 30 equity indices, and its shares are listed on the London, Dublin and New York stock exchanges. CRH is also ranked among sector leaders by a number of Socially Responsible Investment (SRI) rating agencies for its sustainability and corporate social responsibility performance.

CRH plc was formed through a merger in 1970 of two leading Irish public companies, Cement Limited (established in 1936) and Roadstone Limited (established in 1949). The newly-formed group was originally called "Cement Roadstone Holdings", later abbreviated to CRH. Today, CRH is one of the five largest international groups in its sector and has its headquarters at Belgard Castle in Dublin, Ireland.

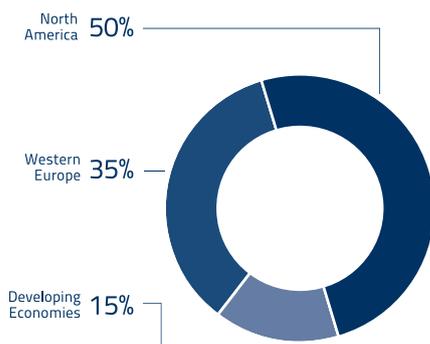
CRH excels in its business operations, develops its people and builds regional market leadership positions across an actively managed portfolio. Its federal structure effectively combines large company resources with local company entrepreneurship. The portfolio is balanced across geographies, sectors and end-uses, thus providing exposure to multiple demand drivers which help smooth the effects of varying economic cycles.

Note that the breakdown shown in the graphs below is by annualised Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA), which includes joint ventures on a percentage shareholding basis.

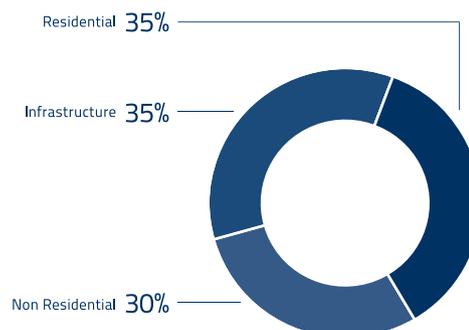
### Segments



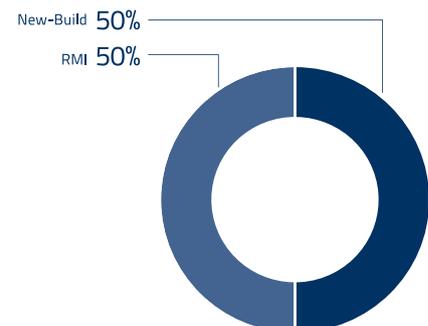
### Geographies



### Sector Exposure



### End-Use



## Developing Sustainability

**By developing sustainable businesses, CRH aims to remain an industry leader creating long term value for all stakeholders.**

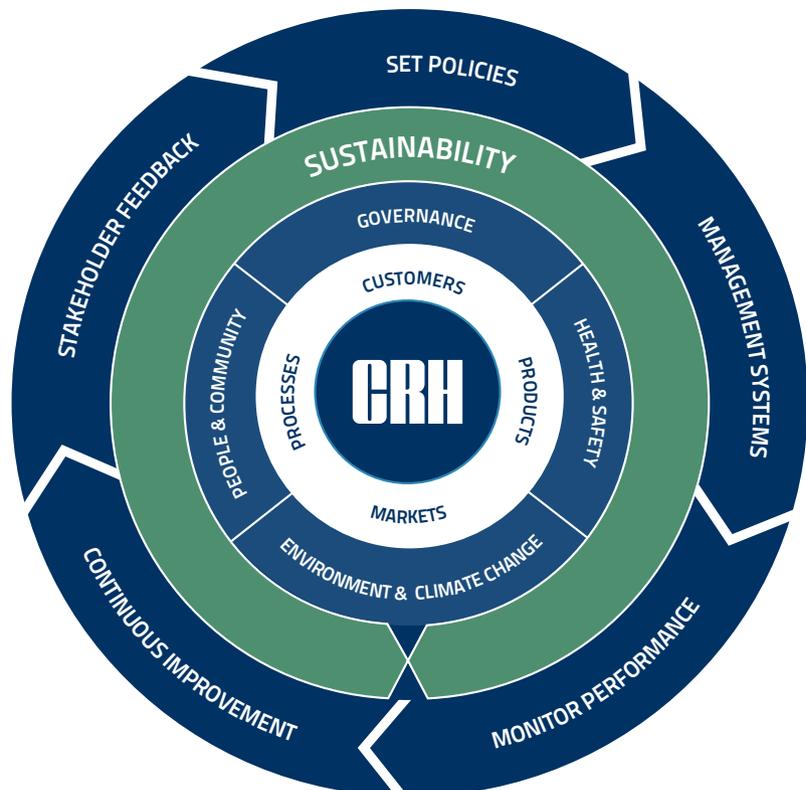
CRH has operated successfully for over 40 years. This success has been based on a solid foundation and commitment to fundamental aspects of business – strong customer and supplier relationships, value added products, efficient processes and targeted markets, balanced across both sectoral and geographic areas. These fundamentals of business are managed within a strong framework and focus on health & safety, environment & climate change, people & community and corporate governance. In all of these areas, CRH sets policies, implements management systems, monitors performance and incorporates stakeholder feedback at each stage aiming all the time for continuous improvement across its activities. The chart below illustrates this approach to sustainable business development.

### Assessing Materiality

Although this on-going engagement and feedback has proved effective, it was decided that a more formal approach to assessing

materiality should be carried out during 2013. This materiality assessment will be undertaken in conjunction with an appropriate external organisation to ensure a fully objective evaluation is achieved. The review of sustainability will cover the full breadth of CRH activities, highlight the issues that are considered to have the potential to impact significantly on CRH's business, including non-financial drivers, and assess the extent and level of interest of CRH stakeholders in these issues. The development of additional metrics and appropriate KPIs to further drive and improve sustainable business performance will be a key outcome of the process.

In this way CRH can ensure it continues to identify key sustainability issues, respond to the challenges in this area and take advantage of the opportunities arising from business development. By developing sustainable business, CRH aims to remain an industry leader creating long term value for all stakeholders.



## Case Study

**The Europe Products & Distribution Division has embedded sustainability as a driver for business development.**

## Developing Sustainability

CRH's Europe Products and Distribution Division has established a centralised team, headed by the Sustainability Director, to develop and co-ordinate initiatives across the Division.

The Division operates in mature European economies and is proactively establishing itself to achieve business benefits from economic, demographic, social, technological and environmental trends in its main markets, while contributing to the sustainability of the built environment.

Key sustainability principles have been defined, which focus on putting the customer first and enabling open dialogue with stakeholders. Learning and sharing internally, together with collaborating with external partner organisations, are also key considerations. Europe Products and Distribution continues

to work on improving its environmental footprint by supporting its business partners in their individual efforts and encouraging the development of innovative products. During 2012, the first steps were taken towards a carbon footprinting tool, which will be rolled out across the Division. Energy and resource efficiencies are also being pursued across the Division. The CRH Europe Sustainable Concrete Centre has been established to progress innovations in the area.

Europe Products and Distribution endeavours to act as an advisor to its customers on sustainable construction. Some of the Division's sustainable products and services include customised branding on sustainable building products, insulated façade replacement systems, water management systems, "living" roofs and precast concrete building solutions.



*(Top)* A green roof at a regeneration scheme in London, UK, was installed by Cityroofs, a business unit of Zoontjens Beton that provides complete elevated landscape solutions.

*(Bottom right)* During 2012, over 500 people attended "Sustainability Into Action" workshops across the Europe Products and Distribution Division. The workshops are organised by country and language so that there is a cross-company and cross-functional interaction between participants. The photo shows UK participants at the Sustainability into Action workshop held in June 2012 in the UK.



*(Bottom left)* QUESTER (Builders Merchants, Austria) signals its sustainable products with the green Q! on market shelves and in advertisements. QUESTER employees have been trained as energy advisors and serve as "environmental ambassadors", using the slogan: "Quester - your specialist for a better environment".

# Sustainability across a Diversified Business

**CRH's sustainability programmes positively benefit the bottom line: the alternative fuels programme has led to savings of €25m in 2012.**

Sustainability is a fundamental objective for CRH in all its businesses from materials extraction through the production of value-added building materials and products to final delivery to the customer.

## Materials

CRH operates strong vertically-integrated primary materials businesses which continuously invest in plant and equipment for safety, quality, efficiency and customer service. Carbon emissions from energy use and from decarbonation bring about a focus on emission reduction and improving energy efficiency. The production of lower carbon cements is a priority. Of particular note in 2012 was a substantial step-up in alternative fuels usage in Europe and increased usage of recycled asphalt pavement in US. These sustainability initiatives mitigated cost inflation in energy related inputs – the Alternative Fuels project in Europe brought about savings of €25m in 2012. In the US, each percentage point increase in Recycled Asphalt Pavement (RAP) usage saves the Group €10m, replacing virgin bitumen and aggregates. Waste management and recycling represent significant business opportunities while contributing to resource efficiencies.

## Products

CRH manufactures products for use in residential, non-residential and infrastructure

construction applications. Complementary value-added exterior products include architectural glass, aluminium glazing systems, clay, brick and block, outdoor security products and shutters and awnings. The development of innovative, sustainable products is seen as a significant business opportunity and a wide variety of products that positively impact the built environment are produced and distributed. Concrete is a well-established solution in applications such as flood defence systems and stormwater management systems and its thermal mass properties can positively benefit energy requirements when used in buildings. Other products with environmental benefits range from sustainable fencing systems to "green" roofs.

## Distribution

CRH distributes building materials to general building contractors, specialist Sanitary, Heating and Plumbing (SHAP) contractors and DIY customers in Europe and to professional roofing/siding and interior products contractors in the United States. CRH's distribution businesses put the customer first and are increasingly promoting environmentally-driven products in the marketplace. The businesses manage their direct potential impacts by focusing on energy efficiency, transportation efficiencies and recycling.

1. Oldcastle Enclosure Solutions manufactured and installed 504 solar ballast footings, each weighing over two tonnes, to anchor solar panels at a project in Dinuba, California, US.



2. In 2012, Heras Mobile Fencing & Security was the first mobile fence supplier in Europe to be awarded the CO<sub>2</sub> Certificate level 3 under the scheme run by ProRail, the Dutch railway network.



3. Oldcastle BuildingEnvelope™ won a contract from a US retail chain to provide building envelope components for use in the construction of 195 new stores and remodelling of 35 stores. The work will incorporate best practices in sustainable design.



# Areas of Sustainability Impact and Opportunity

**CRH has now met its CO<sub>2</sub>, Particulate and NO<sub>x</sub> air emission targets, three years ahead of the target date.**

## Key Sustainability Areas

The table below outlines the key sustainability topics within each of the main areas of sustainability performance: health & safety, environment & climate change, governance and people & community. In addition, stakeholder dialogue is also included due to its importance to CRH in developing, implementing and continuously improving its policies covering the sustainability and corporate social responsibility aspects of its business.

The progress to date in each of these key topics, together with future objectives, is outlined below. These represent the main material focus items for CRH at Group and company level and encompass all that is material to the Group's performance and reporting in terms of sustainability and corporate social responsibility. They also reflect the interests of all stakeholders.

Health & Safety		
Topic	Progress to 2012	Future Objectives
<b>Policy Implementation</b>	Health & safety policy fully embedded throughout the organisation.	Continue to refine & roll out to acquisitions as soon as possible.
<b>Review Process</b>	Annual review carried out & results for 2012 reported to Board.	Continue to refine process, improve efficiency, further increase accuracy of data.
<b>Safety Management</b>	Achieved a 13% reduction in accident frequency rate compared to 2011. Key management focus.	Aim for zero fatalities & ultimately zero accidents.
<b>Fatality Elimination</b>	Fatality Elimination Plan developed, implemented and audited. Remains a central focus of health & safety activity.	Continue implementation and audits of Fatality Elimination Plan.
<b>Initiatives</b>	New initiatives implemented in 2012.	Continue to develop safety management initiatives.

Environment & Climate Change		
Topic	Progress to 2012	Future Objectives
<b>Policy implementation</b>	Environmental policy fully embedded throughout the organisation.	Continue to refine & roll out to acquisitions as soon as practicable.
<b>Review process</b>	Annual review carried out & results for 2012 reported to Board.	Continue to refine process, improve efficiency, further increase accuracy of data.
<b>Climate change</b>	Met target to reduce specific cement CO <sub>2</sub> emissions by 15% on 1990 levels in advance of 2015 target.	Achieve new target to reduce specific cement CO <sub>2</sub> emissions by 25% on 1990 levels by 2020.
<b>Air emissions</b>	Met target to reduce specific cement particulate emissions by 50% & NO <sub>x</sub> by 10% on 2006 in advance of 2015 target, while maintaining low SO <sub>x</sub> .	Achieve new targets to reduce specific cement particulate emissions by 80% and specific cement NO <sub>x</sub> emissions by 22%, on 2006 levels by 2020.
<b>Energy, water, waste, recycling</b>	Progressive improvements being achieved on all parameters.	Continue to reduce specific energy consumption, specific emissions & increase recycling.
<b>Quarry &amp; pit reinstatement, Biodiversity</b>	98% of quarries/pits now have reinstatement plans. Biodiversity plans continue to be developed.	Continue to develop reinstatement plans for all quarries & pits. Continue to develop biodiversity plans where appropriate.

# Areas of Sustainability Impact and Opportunity

## Governance

Topic	Progress to 2012	Future objectives
<b>Compliance &amp; Ethics</b>	Further strengthened compliance organisational structures, reporting continued to meet all requirements, training programme extended.	Ensure ongoing highest standards of corporate governance.
<b>Risk Management</b>	Significant review of risk management framework.	Continue to proactively manage all risks, including new risks.
<b>Code of Business Conduct</b>	Code Revised in 2012, additional guidelines and policies developed.	Continue to refine & roll out to acquisitions as soon as possible.

## People & Community

Topic	Progress to 2012	Future objectives
<b>Policy Implementation</b>	Social policy fully embedded throughout the organisation.	Continue to refine & roll out to acquisitions as soon as practicable.
<b>Review Process</b>	Annual review carried out & results for 2012 reported to Board.	Continue to refine process, improve efficiency, further increase accuracy of data.
<b>Employee Development</b>	Programmes rolled out throughout the Group.	Continue to be an employer of choice.
<b>Management Development</b>	Management development programmes continued.	Extend the development programmes to continue to supply the depth & breadth of skills for a global organisation.
<b>Knowledge Transfer</b>	Best practice activities continued in all key activities.	Continue to drive horizontal knowledge-sharing.
<b>Supply Chain</b>	Ethical Procurement Policy implemented, sustainable supply chain management work continues.	Continue to develop policies, drive sustainability.

## Sustainability and Stakeholder Dialogue

Topic	Progress to 2012	Future objectives
<b>Materiality</b>	Established structure to carry out materiality assessment of sustainability issues.	Complete materiality assessment and develop metrics and monitoring systems.
<b>Sustainable Products</b>	Many products have environmental benefits and applications both in production and use.	Continue to develop and promote products to benefit the built environment.
<b>Stakeholder Communications</b>	Extensive communication programmes continued with employees, investors, local NGOs & other interested parties.	Further develop community engagement, continue to communicate openly with stakeholders & respond to feedback.
<b>Community Liaison</b>	Extensive programmes continued at local & community levels.	Continue to grow these programmes in all regions of operation.
<b>Awards</b>	Continued high number of awards.	Continue to promote awards.
<b>SRI Rating Agencies</b>	Positive reviews received from leading Agencies.	Maintain high level position.
<b>GRI Guidelines</b>	Adopted the GRI G3 guidelines, achieved the "A+" level.	Continue to achieve "A+" application level, prepare to report to GRI G4 guidelines.
<b>External Verification</b>	2012 Report verified by DNV.	Maintain Sustainability external verification, continuously improving reporting.

## Organisation Structure

**CRH is a federal group, organised to achieve sustainable, responsible performance and growth.**

CRH plc is the parent company of an international group of businesses which are organised into six business segments; Europe Materials, Europe Products, Europe Distribution, Americas Materials, Americas Products and Americas Distribution, as illustrated in the organisation chart below.

CRH is organised on a federal basis and combines large company disciplines and local company entrepreneurship, giving a strong management commitment to both the local company and to the CRH Group. Experienced operational management is given a high degree of individual autonomy and responsibility to accommodate national and cultural needs and to leverage local market knowledge, consistent with key centrally defined policies and requirements. Guidance, support, functional expertise and control are provided as appropriate by lean Group headquarter teams in areas including finance, risk management, human resources, investor relations, development and sustainability.

The Group's size and structure is leveraged to drive margin improvement and earnings growth and to achieve the twin imperatives of

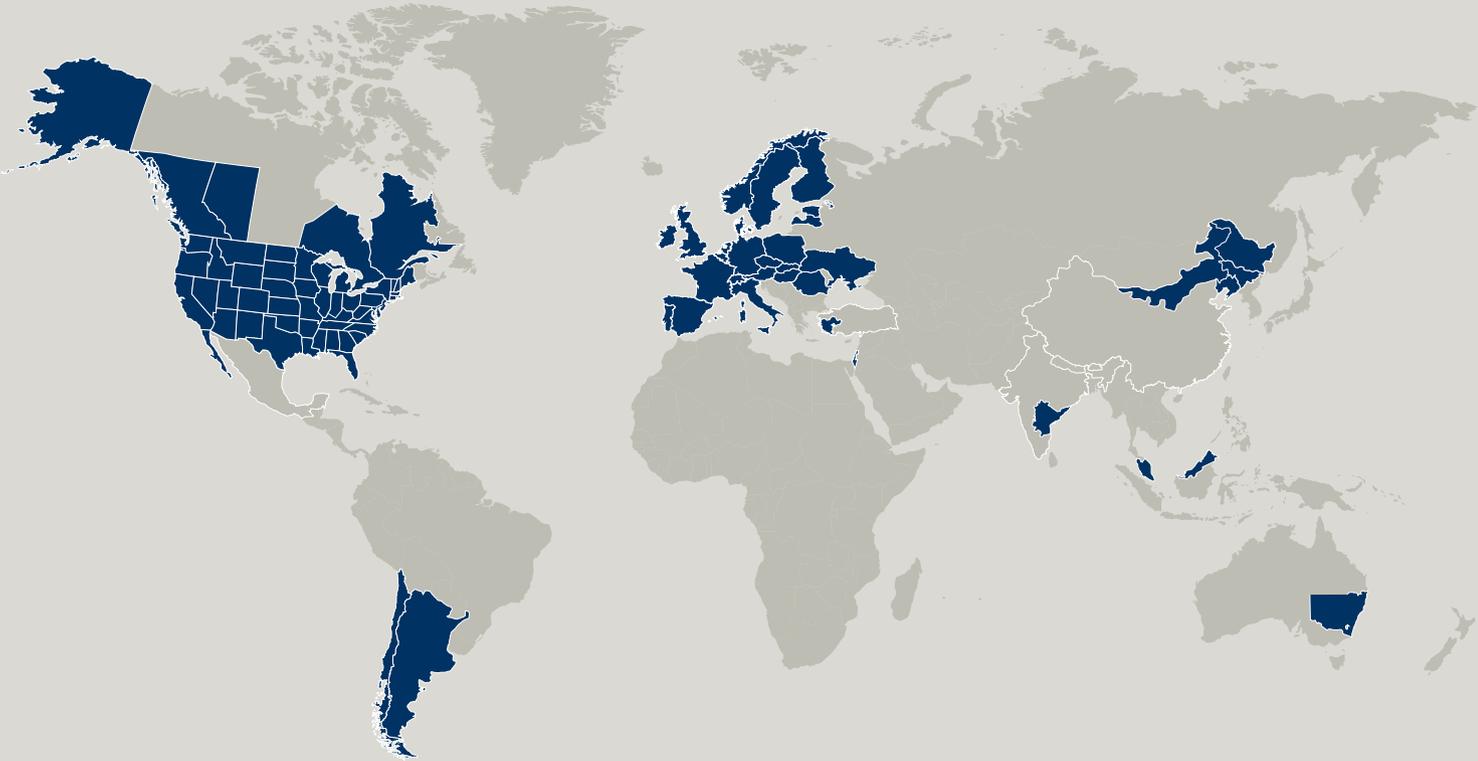
performance and growth. Best-practice teams promote performance improvement through the sharing of experience, technologies and ideas across products and regions.

Policies related to sustainability and CSR are defined at Group level and implemented systematically in each of the six business segments by line management, assisted by safety officers, environmental liaison officers, country compliance coordinators and human resource managers in the operating companies. Group sustainability performance is monitored and reported at business level and also centrally by the Group Sustainability Manager and a small support team.

CRH is incorporated and domiciled in the Republic of Ireland and is a public limited company operating under the Companies Acts of Ireland 1963-2009 and the Investment Funds, Companies and Miscellaneous Provisions Act 2006, each as amended. CRH shares are listed on the London Stock Exchange (primary listing since November 2011), Irish Stock Exchange and on the New York Stock Exchange (NYSE) in the form of American Depositary Receipts (ADRs). CRH is a constituent of the FTSE 100 Index.



## Responsible International Leader



## Leadership Positions

## United States

- No. 1 Asphalt
- No. 3 Aggregates
- Top 3 Readymixed concrete
- No. 1 Concrete products
- No. 2 Construction accessories
- No. 3 Roofing/siding distributor

## Europe

- Top 10 Cement
- Regional leadership in aggregates and readymixed concrete
- No. 1 Concrete products
- No. 1 Construction accessories
- Top 3 Building materials distributor

## Developing Economies

- No. 1 Building Materials in Poland
- No. 1 Cement in northeast China (26% CRH share)
- No. 2 Cement in Andhra Pradesh, India (50% CRH share)

## Annualised Production Volumes

Cement 11.3m tonnes	BuildingEnvelope Products 9.6m m <sup>2</sup> glass
Aggregates 169.9m tonnes	Pre-packaged Concrete Mixes 2.2m tonnes
Asphalt 43m tonnes	Pre-packaged Lawn & Garden Products 3.6m tonnes
Readymixed Concrete 14m cubic metres	Builders' Merchants 426 branches
Lime 1.0m tonnes	DIY 238 stores
Concrete and Precast Products 28.1m tonnes	SHAP 119 stores
Clay Products 2.9m tonnes	Exterior Products 136 branches
Fencing & Security 14.2m lineal metres	Interior Products 48 branches

**Note:** These annualised production volumes include subsidiaries and joint ventures on a percentage shareholding basis and exclude CRH's share of cement (c. 6.1m tonnes) and readymixed concrete (c. 0.6m tonnes) attributable to associates Uniland in Spain(26%), Mashav in Israel (25%) and Yatai Building Materials in China (26%).

## Performance 2012

**CRH continues to focus on implementing cost savings initiatives and operational excellence and is well positioned to benefit as economic growth returns.**

CRH's operations across the globe faced mixed economic circumstances during 2012. In the Group's main markets, there was ongoing improvement in overall economic activity in the US, which saw a recovery in residential construction, while consumer and investor confidence continued to be slow in European economies. Against this backdrop, Group profit before tax amounted to €674 million and earnings per share were 76.5c. The profit and earnings per share outturns represented downturns of 5% and 7%, respectively, in comparison with 2011 outturns of €711 million and 82.6c.

Reported sales at €18.7 billion showed an increase of 3%. Underlying like-for-like sales fell 2%, comprising a 3% increase in the Americas outweighed by a 6% decline for European operations.

Earnings before Interest, Tax, Depreciation and Amortisation (EBITDA) amounted to €1,640 million, a 1% decline on the €1,656 million reported for 2011. EBITDA is stated after charging costs of €60 million (2011: €61 million) associated with the Group's ongoing restructuring initiatives.

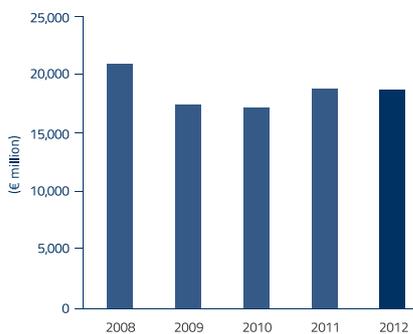
The market capitalisation of CRH at year end was €11.1 billion, ranking the Group at number four in its building materials peer group. The Group remains in a very strong and flexible

financial position with €1.8 billion of cash, cash equivalents and liquid investments together with €1.8 billion of undrawn committed bank facilities at year-end; year-end cash balances would cover all debt maturities in 2013 and 2014. Net debt of just under €3 billion at year-end 2012 was €0.5 billion lower than year-end 2011.

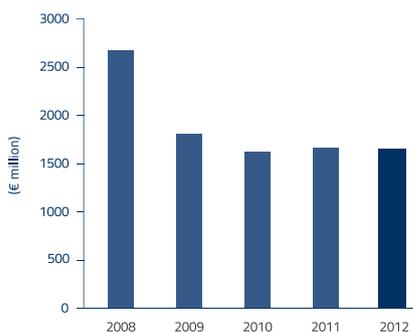
During 2012, CRH continued to advance the significant cost reduction initiatives which have been progressively implemented since 2007 and which by year-end had generated cumulative annualised savings of €2.2 billion. CRH continues to seek opportunities to generate sustainable savings, which will improve its operational performance and enhance its competitive position in the light of current market conditions. Of particular note was the increase in alternative fuels use in European cement operations and increase in recycled asphalt use in paving operations in North America, which mitigated cost inflation in energy-related inputs.

Significant portfolio changes occurred during 2012. These included the sale of CRH's 49% shareholding in Secil, the Portuguese cement joint venture in May. In addition, Magnetic Autocontrol, which manufactures and supplies access control products, was disposed of, also in May. Total proceeds from disposals in 2012 amounted to €0.86 billion.

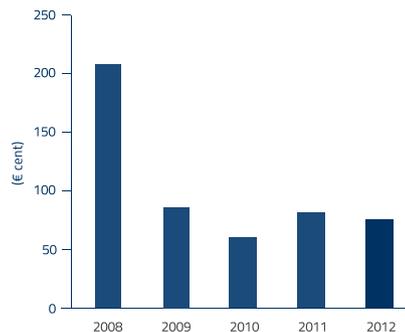
### Sales



### EBITDA

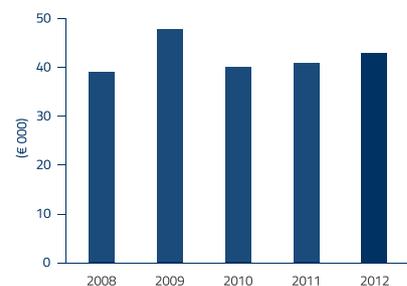


### Earnings per share



### Total Shareholder Return

Total Shareholder Return calculated at each period end on an initial €100 investment in 1970. (Averaging 15.5% per annum since 1970).



## Development Strategy and Activity

**All potential acquisitions are carefully examined for material Sustainability and Corporate Social Responsibility issues and matters that may affect both the valuation of the purchase and the reputation of the Group.**

CRH continues its rigorous approach to acquisition evaluation. Companies joining the CRH Group are integrated into health & safety, environmental, social and Code of Business Conduct reporting systems, together with CRH governance systems. Extensive due diligence is carried out and for acquisitions in developing economies, this also covers human rights and other social and ethical issues.

Development activity completed during 2012, which amounted to €0.65 billion, reflected CRH's long-term, value-based approach to developing the Group's balanced portfolio.

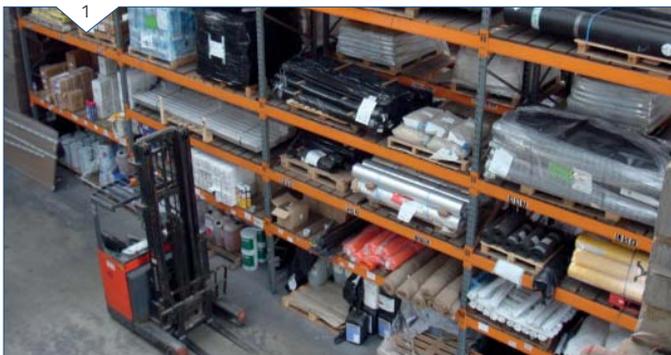
Of the €0.33 billion of Materials development activity, roughly 70% arose in the United States where the Group added a total of 0.6 billion tonnes of strategically located aggregates reserves, most particularly through the acquisition of a majority share of New Jersey based Trap Rock Industries. In Europe, the Group substantially increased its presence in the Finnish readymixed concrete and concrete products market, with the acquisition of Lemminkäinen Rakennustuotteet OY. In early 2013, CRH completed an asset swap, transferring its stake in Corporacion Uniland SA to Cementos Portland Valderrivas (CPV) in consideration for a 99% stake in Cementos Lemona SA, an integrated cement, readymixed concrete and aggregates business located in Northern Spain.

Total 2012 development spend in the Products segment amounted to €0.27 billion with a focus on RMI and sustainability segments together with the optimisation of production networks in core markets. In Europe, CRH significantly expanded its Shutters & Awnings business through the acquisition of Alulux Erhardt, a major German player and expanded its Construction Accessories business with the acquisition of Anchor Bay Construction Products, a leading UK company. In North America, businesses acquired served to strengthen core operations in packaged products, concrete pavers and precast products.

Distribution acquisitions in Europe totalled €0.05 billion during 2012 with the bulk of this expenditure incurred on the expansion of the Sanitary, Heating and Plumbing business in Belgium.

CRH has built, and continues to develop, a portfolio that is balanced by geography, by product and by end-use sector. In addition to regional development teams, the Group has established a dedicated base in Moscow focussed on identifying development opportunities in Russia and a regional CRH headquarters in Singapore to oversee the expansion of existing interests in India and China and to pursue further development opportunities in the wider region.

1. Anchor Bay Construction Products, UK, acquired in January 2012, received the prestigious Safety Innovation Award at the Annual Construct Awards for its 'Rebar Safety Strip', a recycled plastic strip, which allows greater protection for site workers and cost savings.



2. A majority share in Trap Rock Industries, New Jersey, US, was acquired in December 2012. An integrated aggregates and asphalt business, the company operates several recycling facilities for construction & demolition waste.



## Communications

**CRH maintains an open door policy on stakeholder engagement and communicates regularly with all stakeholder groups on a broad range of issues, including its sustainability commitments and performance.**

CRH attaches great importance to its communications with all stakeholders. Stakeholders are identified as including employees, shareholders, the investment community, socially responsible investment rating agencies, legislative and regulatory authorities, industry peers, government representatives, contractors, customers and suppliers, as well as neighbours, local NGOs and community groups. The company welcomes enquiries from those interested in increasing their knowledge of CRH and its activities.

CRH and its companies engage as appropriate with relevant associations and individuals. At company level, CRH is in regular dialogue with customers, suppliers, neighbours and local communities. Communications with legislative and regulatory authorities are handled at company and regional level as appropriate. In addition, company representatives maintain a range of contacts with educational institutions, particularly universities, throughout the countries in which CRH companies operate. The Community section of this Report provides examples of the many ways in which CRH and its companies engage with stakeholders at all

levels of the organisation with the overall aim of being a good neighbour in every community in which CRH companies operate.

At Group level, CRH engages with shareholders and the investment community, third-party survey and assessment organisations and other interested parties. Communications with shareholders and the investment community are promoted through the award-winning Investor Relations (IR) team, based at Group headquarters at Belgard Castle. In 2012, key topics discussed included: CRH's performance in the context of continued challenging global markets, cost reduction initiatives and sustainability policy implementation. IR data is downloadable from the CRH website ([www.crh.com](http://www.crh.com)).

In November 2012, the Group organised capital markets days for investors and sector analysts in London and New York. These events included presentations on various aspects of CRH's operations and strategy and in keeping with the Group's practice of open dialogue, provided an opportunity for attendees to meet with the senior executive and Divisional management teams.

1. In 2012, CRH hosted capital markets days in London and New York which provided investors an opportunity, outside of the regular results announcement schedule, to receive an update on various aspects of CRH's operations and strategy, and also an opportunity to meet with CRH's senior executive and Divisional management teams.



2. In October 2012, Irish President Michael D. Higgins and his wife Sabina (pictured, centre) visited Argentina. Juan Carlos Girotti, President of CRH South America met the President and other dignitaries.



## Communications

Internal communications make a valuable contribution to CRH's success in the competitive environment of the building materials industry. Divisions, regions and product groups have strong traditions of regular and open communication.

The employee voice within CRH is heard directly through a variety of representative structures depending on the business or country concerned. Mechanisms exist throughout the Group for informing and consulting employees on matters impacting on them directly and on the businesses in which they work.

In the European Union, the CRH Euroforum (in compliance with the European Works Council Directive) provides a regular opportunity for employee representatives to discuss a wide range of business and social issues, including sustainability strategies, with company management.

In 2012, approximately 87% of all Group companies held regular formal employee briefings. In addition, smaller companies provided information on a more informal basis. This reflects the ongoing open dialogue across the organisation.

The CRH internal newsletter "Contact" is produced annually in ten languages from articles submitted by individuals and companies throughout the Group. Additionally, 40% of companies have their own newsletters with many opting for electronic newsletters, which can be circulated more rapidly and efficiently.

The CRH Group website and extensive internal intranet provides an effective means of information sharing, learning and communication on a variety of subjects including health & safety, technical best practice, sustainability, business ethics and other areas.

1. In its continuing effort to enhance communications across Oldcastle Materials, which operates across the US, regular "Town Hall" meetings are held. All employees are invited to participate and submit questions. Replays and slide shows are available on the Oldcastle intranet.





Employees at the Tilburg General Merchants location in the Netherlands promoting the zero accident philosophy at Europe Distribution. The employees have achieved the "Level 4+ : Outstanding Safety Culture" on the Safety Cultural Ladder and have been 8 years without an accident.

# Health & Safety

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Health and safety is a core value at CRH. During 2012 CRH implemented further strategies and initiatives to enhance safety performance and increase safety awareness throughout the Group. In this section the CRH Health & Safety Policy and its implementation across the Group is described. The Fatality Elimination Plan, with a target of zero fatalities, is a key objective. The annual review process is described and the results for 2012 are summarised.

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**19** Health & Safety Policy

**20** Annual Review Process

**21** Safety Record

**23** Fatality Elimination

**24** Safety Training

**25** Safety Management

## Health & Safety Policy

### Implementation

The health and safety of everyone working for CRH continues to receive the highest priority across all operations. The implementation of health and safety policies is the responsibility of line management up to Divisional Managing Director, the Chief Operating Officer, the Chief Executive Officer and ultimately to CRH Board level. The network of Safety Officers assists the line managers in developing safety management and improving safety performance. Safety Officers share best practice extensively, as well as working closely with the Group Sustainability Manager and his team.

Company management is responsible for ensuring that the CRH Health & Safety Policy is strictly adhered to and that site managers and employees understand health and safety risk analysis and accident prevention principles.

CRH's experience indicates that contractors have a higher risk of being involved in a fatal accident than employees. As a result, contractor management receives a high priority, with contractor procedures embedded in day to day operations at all locations. 2012 has seen enhancement of these contractor management systems to further improve and monitor safety performance.

The elimination of fatalities remains a fundamental objective within the Group. CRH continues to enhance its safety systems to eliminate fatalities from all operations. Where fatalities occur the circumstances surrounding such events are thoroughly investigated and the lessons learned communicated throughout the Group as a matter of urgency.

### Policy

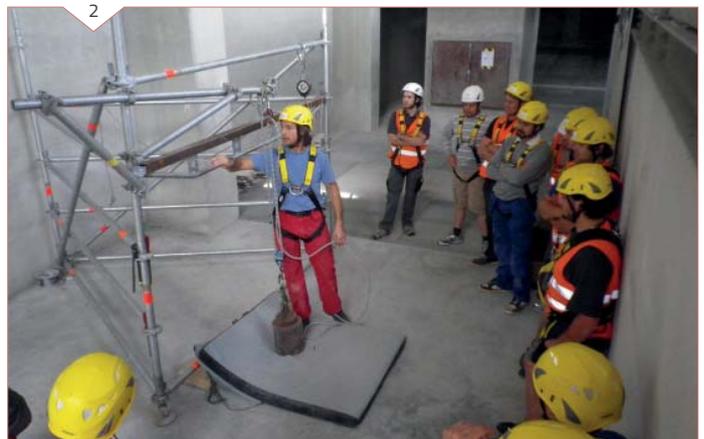
CRH's Health & Safety Policy, applied rigorously across all Group companies, is to:

- Comply, at a minimum, with all applicable legislation and continually improve our health & safety stewardship towards industry best practice.
- Ensure that our employees and contractors respect the Group's health & safety guidelines.
- Ensure that our companies provide a healthy and safe work place for all our employees and contractors and take due care of customers and visitors at our locations.
- Require all our employees and contractors to work in a safe manner as mandated by law and industry best practice.

1. Dycore personnel working safely during the installation of roof sections at the Eenspan project in Zeewolde, Netherlands.



2. Jura personnel taking part in a 'Work at Height' safety campaign which took place at Jura Cement's Wildegg plant in Switzerland.



## Annual Review Process

**The 2012 review confirmed that all CRH locations have appropriate safety management systems in place.**

The Group Sustainability Manager and his team, together with Safety Officers across the Group carry out a detailed assessment of health and safety performance at each year-end. Every Group company completes and submits a detailed health & safety questionnaire by mid-January each year and by the end of March a comprehensive report is reviewed by the CRH Board. Acquisitions are systematically introduced to the review process to ensure that all subsidiaries are covered each year. Most joint ventures and associates also actively participate in the review process.

This annual review process uses an on-line questionnaire system to gather the data from across the Group. Many companies now also submit their data directly from their own online systems. The information from this health and safety review has been used to provide the performance information in this Report.

The year-end review addresses key areas including:

- Implementation of CRH's safety policy.
- Analysis of all fatalities focusing on direct and root causes.
- Implementation of the Fatality Elimination Plan.

- Analysis of all lost time injuries focusing on trends in root cause, injury type and employed person's profile.
- Safety management relating to employees and contractors, including, recording of near misses, minor injuries and recordable incidents, frequency of safety meetings, hours of safety training, use of disciplinary measures and incentives to reduce accidents, use of personal protective equipment.
- Details relating to internal and external safety audits and risk assessments.
- Workplace hygiene and employee health management.

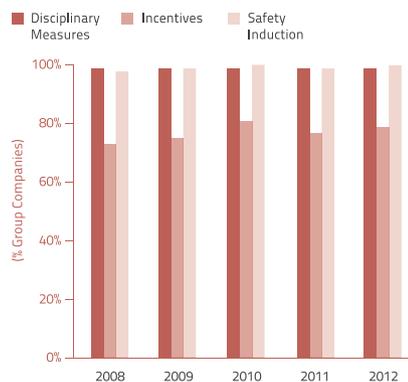
The results of this review are fed back to operating companies through the network of Safety Officers and through safety best practice groups during the year and ensures a culture of continuous improvement in safety performance at all Group companies.

The data below demonstrates the progress being achieved on several safety management indicators. In addition to these indicators, 74% of CRH locations carried out formal safety audits, in respect of health and safety including formal external audits from specialists and legislative authorities.

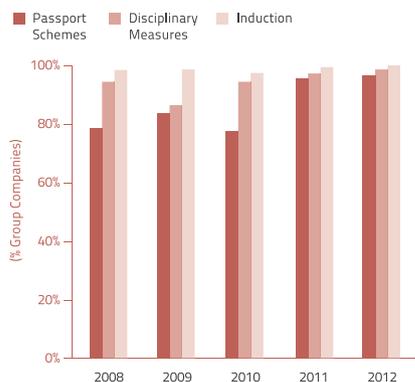
### Safety Management



### Employee Safety Management



### Contractor Safety Management



# Safety Record

The number of accidents is at a historic low, down 11% on the previous year.

## Accidents

The 2012 review demonstrated further improvement in safety management and practice across the Group. The 2012 Accident Frequency Rate (combining both employees and contractors) improved to 2.6 lost time accidents per million manhours, down 13% on the 2011 figure. The Accident Severity Rate was 68 lost working days per million manhours, similar to the previous year (2011: 67).

Over the last decade, the Group Accident Frequency rate has reduced by an average of 15% per annum, a significant improvement over the period. There is a particular focus on bringing acquisitions up to Group safety standards. CRH continues to advance its safety philosophy across all companies and while challenges remain where CRH does not have full management control good progress continued to be made in 2012.

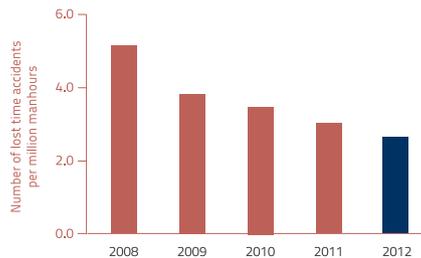
A significant 89% of CRH active locations were accident free in 2012. CRH continuously strives to improve this figure through ongoing intensive

safety management, training and sharing of safety best practice. Operations with poorer safety performance continue to be subject to intense management focus for improvement.

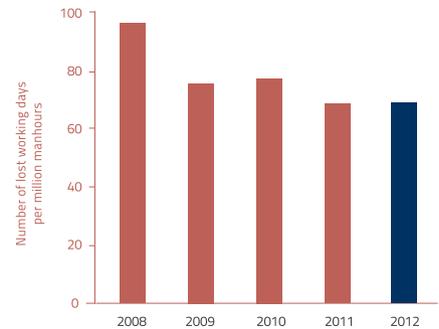
The Accident Frequency Rate for joint ventures and associates, where CRH does not have full management control, (if counted on a 100% basis) was 1.9 and the Severity Rate was 71.

Safety best practice is also actively shared on an industry-wide basis through the CSI Health & Safety Task Force. All CSI Members are strongly committed to improving the safety performance of the industry, with specific initiatives currently being rolled out relating to mobile plant and contractor safety management. CRH contributes actively to the CSI safety programmes and amongst its activities in 2012, presented a comprehensive handbook on the "Safe handling, storage and use of alternative fuels in the manufacture of cement" at the CSI Forum in Guangzhou, China.

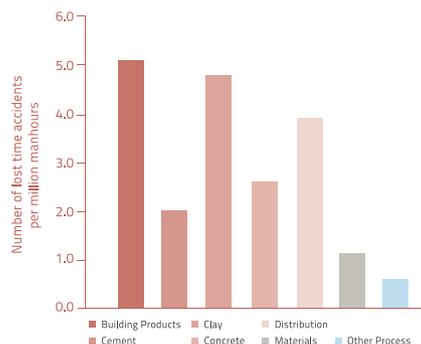
## Group Frequency Rate



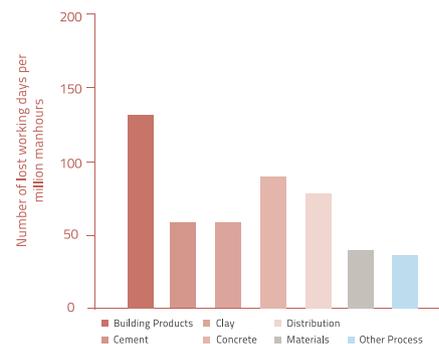
## Group Severity Rate



## Frequency Rate by Activity



## Severity Rate by Activity



Note: All Frequency and Severity Rates shown here are on a million manhour basis, in accordance with CSI definitions. Internally, CRH continues to use a 100,000 manhour basis, the corresponding rates being of lower magnitude by a factor of ten.

**CRH aims to achieve world class performance in all areas of safety.**

## Safety Record

### Accident Causes

Each year, CRH extensively analyses all accidents by direct cause, root cause and type of injury and also age, length of service and job category of those injured, in order to better understand the causes of accidents and structure training and accident prevention programmes.

The data from 2012 was consistent with previous years and indicated that the three main accident causes continued to be due to falling and moving objects; slips, trips and falls on the same level; and lifting or overload. The most frequent injuries were to the arms, hands, legs and feet. Detailed analysis of near misses and incidents are carried out to further understand causes and enhance risk awareness. In 2012 accident prevention measures included a focus on employee engagement through training programmes, toolbox talks and safety awareness workshops, safety meetings and circulation of safety alerts.

### Fatalities

Despite the very considerable focus on safety, CRH deeply regrets that there were 3 fatalities (2 employees and 1 contractor) in subsidiaries in the United States during 2012.

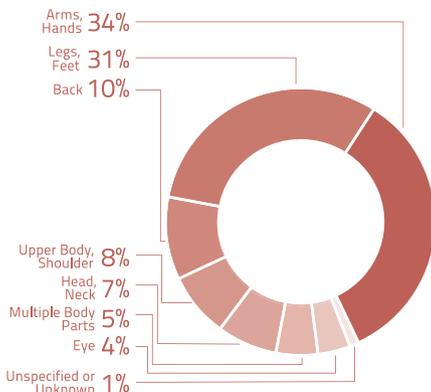
These fatalities correspond to Fatality Rates (number of Fatalities per 10,000 employed) of 0.27 (0.53 in 2011) for employees and 0.96 (2.92 in 2011) for contractors, equivalent to 0.35 (0.82 in 2011) on a combined basis. There was 1 third-party fatality reported in 2012.

In addition to the figures reported for subsidiary companies CRH also deeply regrets to report 3 employee fatalities in an associated company, in China. CRH strives to ensure that all joint ventures and associates adopt the Group's safety culture and strong commitment to effective safety management.

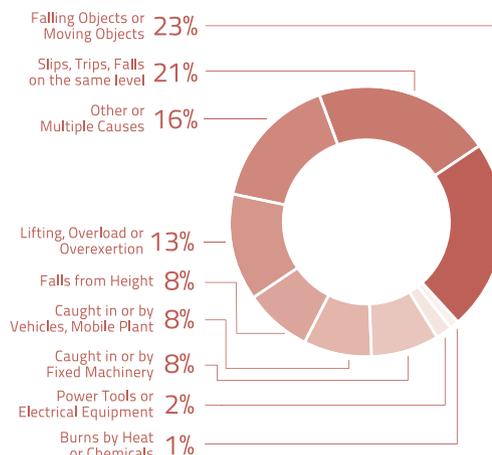
Zero fatalities is the only acceptable figure and the Group wide Fatality Elimination Plan is being rigorously pursued.

Fatalities over the last decade have been thoroughly examined and the elimination of fatalities continues to receive the highest priority. Over the decade the three main causes of fatalities have been identified as mobile plant movements; falls from height; and failures by individuals to abide by established plant isolation (Lock Out/Tag Out) procedures. The examination has also highlighted the higher risk of contractors being involved in fatal accidents.

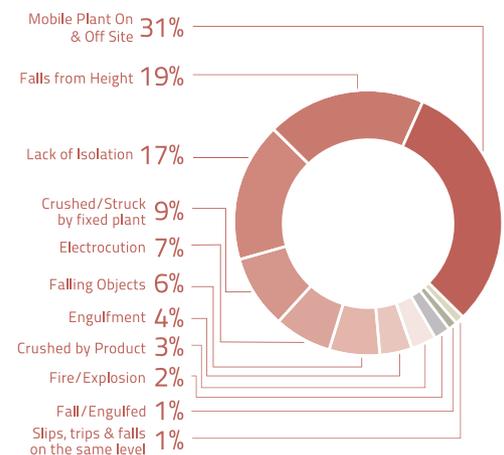
Accidents by Injury Type 2012



Accidents by Cause 2012



Fatalities by Cause 2003-2012



## Fatality Elimination

**The elimination of fatalities is a fundamental objective of CRH.**

The fatality elimination plan is a Group-wide initiative aimed at eliminating fatalities from operations. It is based on the implementation of 11 Fundamentals for Fatality Elimination relevant to Group operations, which are mandatory across the Group. The Fundamentals for Fatality Elimination were developed 4 years ago to target the identified causes of fatalities, which have been shown to be different to the causes of accidents. This focus has continued since the launch of the Plan.

Auditing of the implementation of the Fatality Fundamentals is ongoing and audits were completed across all Divisions in accordance with an agreed Plan in 2012. The audit process has been very positive and has assisted in maintaining focus on the Fundamentals and has further enhanced sharing of specific safety best practice throughout the Group. The audits carried out to date confirm the high level of implementation of the Plan across the Group and the significant management attention on a daily basis. Deficiencies identified during the audit process are addressed by local management and reviewed through follow up audits and inspections.

A Group-wide Fundamental Safety Alert continues to be distributed every month to supplement ongoing initiatives within the four Divisions. Each Division has also developed specific programmes focusing on the 11 Fundamentals and during 2012 further initiatives have been developed across the Group. In addition working groups set up to investigate specific issues (Tyre Safety Management and Hollow Core Production Electrical Safety) made several recommendations which are currently being implemented throughout the Group.

A comprehensive fatality prevention benchmarking review targeted at emerging markets was completed in 2012. The review indicated that across all industries in emerging regions there are significant differences in safety standards and variations in the level of enforcement of safety regulations, along with high levels of transient workers, particularly on construction sites. Among the benchmarked companies, fatality prevention strategies employed included CEO led fatality prevention programmes, focused employee engagement practices and operational excellence systems. The review also recognised the importance of a separate safety approach for major construction projects.

1. Employees at the Manitou Concrete plant in Rochester, New York, US carrying out a Fatality Elimination Audit to ensure that safety at the location continues to comply with the CRH Fundamentals for Fatality Elimination.



2. CRH's UK companies, Ibstock, Supreme and Kevington, have taken delivery of almost 100 replacement fork trucks fitted with the new innovative reverse detection and speed reduction technology, developed in conjunction with the supplier.



## Case Study

**During 2012 over 1 million hours of safety training was completed in subsidiary companies.**

## Safety Training

Training of CRH employees at all levels throughout the Group is an essential element to the safety management system and to developing competency. Safety training programmes are focused and presented in a concise and understandable manner. Development of employee safety awareness and understanding is an on-going management objective across the Group. Senior management training and development programmes also include strategic safety modules.

On average, employees receive 13 hours training specifically on health and safety every year. In 2012, 80% of the safety training hours were completed by operational employees. Significant resources are directed at developing employee competency to ensure they can carry out tasks

safely and without risk of accident or incident.

Training needs are identified through task risk assessments, formal employee appraisals and review of near miss or accident data. At a Divisional level specific programmes are developed and rolled out on an annual basis. Training is carried out through a variety of techniques including face to face meetings, workshops, on line tutorials and presentations. In addition, specific training material is presented on DVDs and translated into different languages as required. This material is incorporated into company programmes and can be company or location specific. Training programmes, including driver training, also include mandatory training as required by national and state law.



In Europe specific training materials have been designed to enhance training programmes and ensure the competency of employees. In addition to ongoing training, major campaigns targeted at machine isolation (Lock-out/Tag-out) and working at heights were launched in 2012. High quality specialised training materials were produced in 12 languages and circulated to companies across Europe. Safety standards have also been produced outlining safety requirements. *(Photo taken at Stradus Aqua, Belgium).*



In the United States training included the development of a supervisory leadership programme. This training will enhance the skills of the frontline leadership teams. The training programme has been developed with a train-the-trainer approach which brings a consistent message to employees. The training has been integrated with other talent, human resources and safety training initiatives. *(Photo taken during an Oldcastle Materials train-the-trainer session in Pittsburgh, Pennsylvania, US).*

## Safety Management

**Comprehensive employee engagement in all aspects of safety is a key objective.**

Safety is a core value and is the responsibility of all working in CRH. Throughout the Group systems have been developed to cover all aspects of health and safety, incorporating comprehensive safety procedures and risk assessment. These systems also ensure that safety induction programmes are in place for new employees, that employee participation in safety is facilitated through safety meetings, that accidents and near misses are investigated with follow up actions implemented and also that safety alerts are circulated. Safety management is coordinated throughout the Group by the network of Company Safety Officers.

Companies continue to drive employee engagement and support safety leadership teams to further improve safety culture and awareness. Regular safety meetings with employees took place at all companies during 2012 and in addition, 66% of all Group employees were involved either directly or indirectly in formal joint management/worker safety dialogue. Safety improvement forms an integral part of discussions with trade unions where applicable. Topics discussed include safety initiatives and ongoing implementation of the Fatality Elimination Plan. In many companies safety performance is incentivised and

throughout the Group, any safety negligence identified is subject to disciplinary action.

There is a strong focus on the integration of the CRH safety management culture into acquisitions as rapidly as is possible. This can present significant challenges in countries and regions that traditionally have a poor safety culture, but CRH remains fully committed to this policy. In 2012, CRH companies incurred a number of minor fines totalling €302k with over 90% of these occurring in the United States, mostly resulting from OSHA and MSHA inspections. All deficiencies notified have been rectified.

CRH has invested approximately €139 million over the last five years on upgrades on all aspects of health and safety across the Group. The level of spending underlines a dedication to improvements in safety, ergonomics and general workplace conditions. Behavioural safety has remained a focus in 2012 with many companies further enhancing their progress towards best practice. Companies continue to collaborate with safety specialists and consultants to roll out employee behaviour programmes. Divisions have also set out metrics to monitor employee and contractor involvement and participation.

1. Allied Building Products employees, placing tiles on the roof of New Hope Presbyterian Church in Castle Rock, Colorado. Allied rolled out an ergonomic initiative in 2012 to improve the manual handling across all work activities.



2. Oldcastle Lawn & Garden's Bostwick, Florida facility celebrated over 8 years without a recordable incident.



## Safety Management

### Contractor safety continues to be prioritised across the Group.

CRH strives to promote its safety philosophy across all joint ventures and associates although challenges remain where the Group does not have direct responsibility for safety management. In most cases CRH partners actively embrace Group safety policy, report safety data and willingly participate in CRH best practice activities.

In addition to the implementation of the industry developed CSI guidelines on driver safety, technical improvements to increase driver safety awareness have also been introduced.

### Contractors

Many of the initiatives rolled out over recent years have now been embedded into day to day operations. Contractor pre-qualification systems are in place for vetting the safety record of contractors before selection. In addition, contractor safety inductions and formalised evaluation and disciplinary procedures are also in place across the Group. Companies are also implementing the Recommended Good Practice Guidelines for Contractor Safety developed by the CSI.

### Employee Health

The 2012 review captures extensive data on employee health and well-being and indicates that workplace hygiene monitoring is taking place across the Group in accordance with local and national requirements as appropriate.

There was a very low incidence of occupational illness claims recorded in Group companies in 2012, indicating a positive position in occupational health across the Group.

In the EU, relevant companies participate in the European Social Dialogue Agreement (ESDA) on respirable crystalline silica exposure. Where necessary, CRH companies have also actively planned upgrades to comply with developing legislative requirements.

Furthermore, 64% of Group companies provide well-being programmes for their employees. These typically include smoking cessation, weight control, vaccinations and drug and alcohol rehabilitation programmes. In addition, 74% of Group companies offer assistance on employee health insurance.

1. Senior contract managers from contract companies attending a safety management programme at Rudus, Finland.



2. An employee at Cementownia Ożarów, Poland, having their blood pressure checked as part of the employee welfare programme.





A bald eagle at Tilcon's Mt. Hope facility in New Jersey, US. Tilcon has been working with the Wildlife Habitat Council for almost 10 years in enhancing the wildlife habitat for this protected species and other flora and fauna at Mt. Hope and the "Wildlife at Work" programme for the site was successfully recertified in 2012. An established research programme is in place, including a lake study conducted under the auspices of William Patterson University, a fish study and a baseline study of bald eagle habitat.

# Environment & Climate Change

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With ever increasing demands on world resources and mounting pressures on the global environment, CRH continues to focus on achieving the highest standards of environmental management in all its activities and is proactively addressing the challenges of climate change. This section describes the Group's Environmental Policy and how it is implemented. CRH's responses to the challenges of climate change in cement and other activities are addressed and detailed environmental performance data from across the Group is presented and reviewed.

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|----|---|----|---|
| 29 | Environmental Policy                    | 37 | Climate Change: Energy Use and Efficiency |
| 30 | Annual Review Process                   | 38 | Air Reduction Commitment                  |
| 31 | Environmental Investment                | 39 | Air Emissions                             |
| 32 | Climate Change: A Key Challenge for CRH | 40 | Materials Recycling                       |
| 33 | Climate Change: Reduction Commitment    | 41 | Waste Management                          |
| 34 | Climate Change: Emissions               | 42 | Water Management                          |
| 35 | Climate Change: Cement                  | 43 | Restoration and Heritage                  |
| 36 | Climate Change: Other Activities        | 44 | Biodiversity                              |

## Environmental Policy

**CRH is committed to the highest standards of environmental management in all its activities.**

### Implementation

Company and plant managers throughout CRH are responsible for implementing the Environmental Policy and achieving its objectives. This responsibility continues through company Managing Directors to Divisional Managing Directors, the Chief Operating Officer, the Chief Executive Officer and ultimately to the CRH Board.

Line managers in each Group company are assisted by designated Environmental Liaison Officer's (ELO). In each region, the ELOs network with each other and the Group Sustainability Manager and his team in the sharing of environmental best practice. Acquisitions are systematically integrated into the ELO network as soon as is practicable.

All companies are required to have an appropriate environmental management system, the scope of which will depend on the type of operating activity concerned and the specific demands of the local permitting regime. The total number of Group locations with ISO14001 certification is now 530 (487 in 2011) and 80% of CRH's subsidiary cement plants are also certified. It should be noted that ISO Environmental Certification is not common in industrial operations in the United States.

An overview of the various environmental impacts associated with CRH activities, which are addressed in the sections which follow, is provided in the table below.

### Policy

The CRH Environmental Policy, applied across all Group companies, is to:

- Comply, at a minimum, with all applicable environmental legislation and to continually improve our environmental stewardship towards industry best practice.
- Ensure that our employees and contractors respect their environmental responsibilities.
- Proactively address the challenges and opportunities of climate change.
- Optimise our use of energy and all resources.
- Promote environmentally-driven product and process innovation and new business opportunities.
- Be good neighbours in every community in which we operate.

ENVIRONMENTAL IMPACTS BY ACTIVITY	CLIMATE CHANGE/CO <sub>2</sub>	OTHER AIR EMISSIONS	WATER	WASTE	REINSTATEMENT	BIODIVERSITY	TRANSPORT
Cement	▪	▪	▪	▪	▪	▪	▪
Other Process	▪	▪	▪	▪	▪	▪	▪
Materials	▪	▪	▪	▪	▪	▪	▪
Concrete Products	▪		▪	▪			▪
Clay Products	▪	▪	▪	▪	▪	▪	▪
Building Products	▪			▪			▪
Distribution	▪			▪			▪

## Annual Review Process

**The 2012 review confirmed that environmental responsibilities are being well managed.**

The sustainability team in CRH together with ELOs conduct a comprehensive annual review of environmental performance across the Group. The objective of the review is to verify implementation of CRH Environmental policy, ensure environmental issues and risks are being proactively managed and to identify and prepare for future environmental developments. The review covers all subsidiary companies. Most joint ventures and associates also actively participate in the review process. In March each year a detailed report on environmental performance is presented to the CRH Board.

The information from this environmental review has been used to provide the environmental performance information in this Report. The pages that follow summarise the key 2012 data and compare performance with that in previous years. The year-end review encompasses the following key areas:

- Compliance with Group environmental policy, local regulations and national legislation.
- Environmental audits and certification.
- Environmental upgrades and improvements.
- Mitigating climate change and minimising energy and fuel usage.
- Improving air quality.
- Water and waste management.
- Recycling activities.
- Biodiversity and restoration activities.

- Environmentally-driven product developments and opportunities.
- Local stakeholder and community engagement.

As part of this process, any compliance deficiencies are actively addressed and resolved. Fines from regulatory authorities in 2012 amounted to €70k and related to relatively minor issues, none of which caused significant environmental impact. In addition, 81 Group companies were satisfactorily externally audited during 2012.

The environmental review process ensures environmental risks, as detailed in this section and on pages 51-52, are being managed appropriately. There were no significant fuel spills and unprotected underground fuel storage tanks continue to be phased out in accordance with Group policy. The small number of locations with electrical equipment containing polychlorinated biphenyls (PCBs) and with a potential for Legionnaire's disease are being well managed. Reviews of all locations for asbestos containing material (ACM) have been completed and any identified risks are being managed appropriately.

No new significant risks of an environmental nature, which had not already been previously well documented, were identified. Sites with historical contamination or landfill issues are well understood and are being appropriately managed.

1. In September 2012 the annual Poland Environmental Feedback meeting was held at Cementownia Ożarów. This meeting, which included an ecology-themed tour of the area, was one of many regional sessions within the Group that facilitated feedback on the annual review together with internal discussions on specific projects and environmental best practice.



## Environmental Investment

# €68m

invested in environmental improvement processes.

As part of its continuous environmental improvement process, CRH regularly invests in processes which improve performance or that offer innovation opportunities. In 2012, CRH invested €68m (excluding major cement plant capital expenditure), a 29% increase on 2011, in a wide range of environmental projects and upgrades that encompassed all the Group's activities and countries of operation. This figure includes investment in specific environmental projects and an appropriate proportion of expenditure on other major investment projects. This level of expenditure has been sustained over recent years to ensure CRH operates at industry best practice, despite mixed economic circumstances across the globe in 2012. Significant areas of expenditure (with the associated % of the 2012 spend) were:

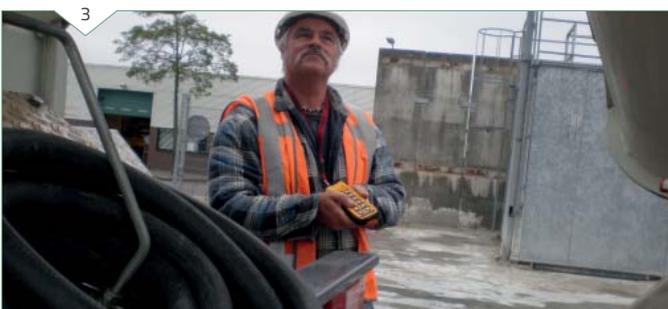
- Restoration, landscaping, paving and other location upgrades (9%).
- Reduction of water usage and discharges (23%).
- Improved waste reduction and management (7%).
- Energy reduction and process optimisation (7%).
- Increased use of alternative materials and fuels (6%).
- Monitoring and licensing (24%).

The total environmental expenditure in 2012, excluding major cement plant capital expenditure, for CRH subsidiary companies and joint ventures and associates, when included on an equity share basis, was €74m.

- Reduction in emissions to air (24%).

1. Comela, Argentina, has recently improved the storage and handling of fuels at its clay brick factory to reduce the risk of potential ground contamination.
3. Cementbouw readymix trucks have become the first in the Netherlands to be equipped with the Litronic EMC truck mixer control system from Liebherr, which allows for reduced pollution and safer operation through regulation of the mixer's running speed.

2. Pennsy Supply's North Region recently commissioned an energy efficient 350 tonne/hr Astec Double Drum asphalt plant, at the new Lawton Quarry in Susquehanna County, Pennsylvania, US.
4. Marlux, Belgium, in conjunction with RBC – a leading transportation company specialised in handling building materials – developed an improved lighter vehicle, which can reduce transport CO<sub>2</sub> emissions by up to 25 per cent.



## Climate Change: A Key Challenge for CRH

**CRH is evaluating its range of metrics to assess performance and monitor progress.**

The challenges posed by climate change together with changing environmental legislation and regulation, heightened consumer awareness and expectations and developments in product and process standards are fully recognised by CRH and integrated into the management strategy. CRH is actively evaluating its range of metrics to ensure it can assess performance and monitor progress in all areas of climate change including emission reductions, energy efficiency improvements, increased use of alternative fuels and raw materials, expanded recycling capability, improved water and biodiversity management along with other areas.

CRH is a core member of the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development, a voluntary initiative by 24 major global cement players to address the sustainability challenges of the industry in consultation with a wide range of stakeholders. Through its membership of CSI and regional industry associations including

CEMBUREAU and EuLA in Europe and NAPA and PCA in the US, CRH is actively involved in global and regional discussions on the climate change agenda. Relevant facilities in Europe operate within EU ETS boundaries.

A key area of climate change mitigation is the Group's many approaches towards reducing specific CO<sub>2</sub> emissions. The majority of CRH Group CO<sub>2</sub> emissions arise from cement and lime production. In these processes, CO<sub>2</sub> arises both from the high temperature chemical decarbonation of the limestone raw material, and also from fuel combustion. Group CO<sub>2</sub> emissions also arise from the firing at high temperatures of clay and ceramic products, as well as from lightweight aggregate production and from the drying and heating of raw materials in asphalt mixing plants. Minor CO<sub>2</sub> emissions arise from fuel use in other activities and from transport. The table below summarises CRH's approaches towards reducing specific CO<sub>2</sub> emissions in all of its activities.

### Addressing the Challenges of Climate Change

#### CEMENT

- Optimally operating cement plants.
- Reducing clinker factor by producing blended cements (low carbon "green" cements).
- Using alternative fuels where available and permitted.
- Reducing power consumption.
- Investing in new and replacement state-of-the-art plants.
- Research into new cement/concrete technologies.

#### OTHER PROCESS

- Lime – optimising existing plants and investing in new state-of-the-art plants.
- Lightweight aggregates – optimising plant operation.

#### MATERIALS

- Optimising quarrying, aggregates crushing and recycling activities.
- Optimising mix design in readymixed concrete.
- Using cementitious by-products where commercially available.
- Optimising asphalt mixing plant operations.
- Using recycled asphalt pavement (RAP) and alternative fuels.

#### TRANSPORT

- Optimising logistics and modes of transport.

#### CONCRETE PRODUCTS

- Optimising mix design in all products.
- Using the heat of reaction in curing.
- Using recycled materials where practicable.
- In precast products, pioneering the use of carbon-fibre reinforcement.

#### CLAY PRODUCTS

- Optimising plant operation and fuel usage.
- Using alternative fuels where available and permitted.
- Insulation of brick kilns to minimise heat loss.
- Progressively upgrading plants to latest technology.
- Introducing unfired bricks for certain indoor applications.

#### BUILDING PRODUCTS

- Developing innovative energy-saving solutions.

#### DISTRIBUTION

- Optimising product distribution logistics.
- Promoting sustainable products.

## Climate Change: Reduction Commitment

**Achieved 15%**  
reduction in cement  
specific net CO<sub>2</sub> by 2012,  
ahead of target.

Having met its 15% reduction commitment ahead of the 2015 target date, CRH is now committing to a 25% reduction in specific net CO<sub>2</sub> cement plant emissions by 2020 compared with 1990 levels (0.761t CO<sub>2</sub>/tonne cementitious product).

The commitment covers a defined portfolio of cement plants within the CRH Group at the beginning of 2013 and includes facilities in Belgium, Finland, Ireland, Poland, Spain, Switzerland and Ukraine. CRH is confident that its strategic programmes will deliver this commitment on target.

In 2007, CRH, in fulfilling its obligations as a member of the Cement Sustainability Initiative of the WBCSD, publicly committed to a 15% reduction in specific net CO<sub>2</sub> cement plant emissions by 2015, compared with the 1990 emissions from a defined portfolio of cement plants. The 2012 specific CO<sub>2</sub> emissions were 15% below 1990 levels, thereby delivering CRH's 2007 commitment 3 years ahead of the target date.

Key projects in the context of achieving this commitment were the replacement of wet process kilns at Podilsky in the Ukraine

with a single dry process line, which was commissioned in 2011; the commissioning of a new kiln at Lappeenranta in Finland in 2007; the commissioning of a new kiln at Platin in Ireland in 2008 and upgrades at Ożarów in Poland. In addition, the setting of clinker factor reduction targets, the development of blended cements, the use of alternative fuels including biomass and significant investment in Best Available Techniques (BAT) based plants and equipment have been significant in reducing specific CO<sub>2</sub> emissions and will continue to be significant in meeting the new commitment.

1. In May 2012 Finnsementti's Lappeenranta Plant achieved its plant target of substituting 40 per cent of fossil fuels with alternative fuels. The project involved two years of process development and fuel quality improvement, together with mechanical, electrical and automation improvements.



# Climate Change: Emissions

Total CRH direct CO<sub>2</sub> emissions (designated as Scope 1 under the Greenhouse Gas Protocol) from all wholly-owned subsidiaries amounted to 9.2m tonnes in 2012, compared with 10.3m tonnes emitted in 2011. The decrease in 2012 is due to a combination of factors, including improved efficiencies and the increased use of alternative fuels and materials. In addition, reduction of output in some markets and the divestiture of some businesses also influenced the overall outcome. The new dry process plant at Podilsky significantly reduced emissions on both a specific and total basis and will be significant in continuing to drive further emission reductions in future years.

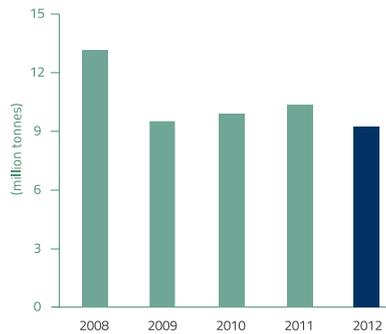
The breakdown of CO<sub>2</sub> emissions by source was broadly similar to the previous year, as was the breakdown of CO<sub>2</sub> emissions by activity. Cement clinker production accounted for 63% of direct Group emissions, which is reflected in the fact that decarbonation is the largest single

source of direct CO<sub>2</sub> emissions in the Group. For its cement activities, CRH reports on the agreed CSI key performance indicators (KPIs) on page 69 of this Report and those indicators related to CO<sub>2</sub> emissions showed significant improvements for the reasons outlined above.

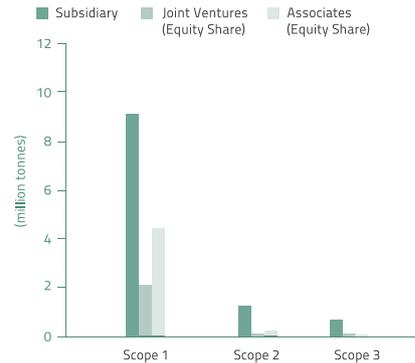
Scope 2 2012 CO<sub>2</sub> emissions, calculated on a total electrical energy usage of approximately 2.8TWh, are estimated to be in the order of 1.2m tonnes. Scope 3 emissions for contracted transport are estimated to be of the order of 1.0m tonnes.

As indicated above, this data relates to wholly-owned subsidiaries. When joint ventures and associates are included on a basis proportionate to CRH's shareholding, the combined Scope 1 emissions amount to 15.7m tonnes. The combined Scope 2 and 3 emissions is correspondingly estimated to be in the order of 1.5m tonnes and 1.1m tonnes, respectively.

CO<sub>2</sub> Emissions by Year (Scope 1)

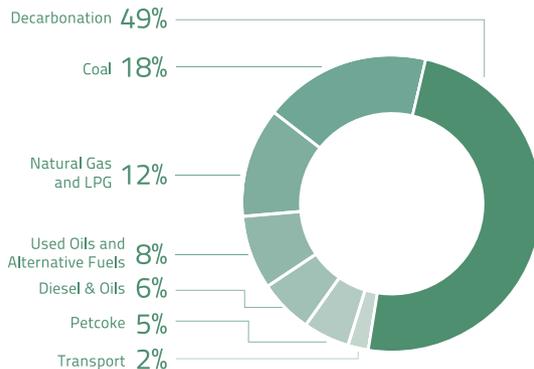


CO<sub>2</sub> Emissions (Equity Basis)



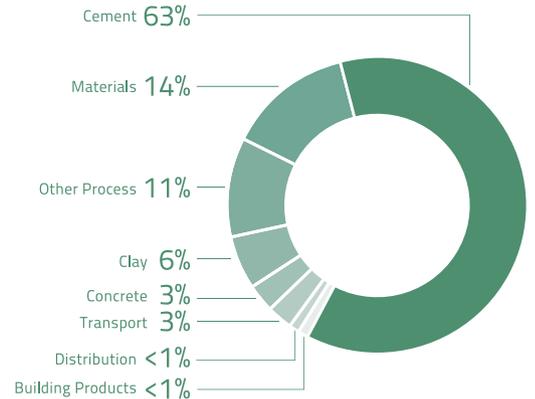
CO<sub>2</sub> Emissions by Source (Scope 1)

Total: 9.2m tonnes



CO<sub>2</sub> Emissions by Activity (Scope 1)

Total: 9.2m tonnes



**CRH's strategy is to continue to increase the use of alternative materials and fuels as far as practicable in the years ahead.**

## Climate Change: Cement

### Alternative Fuels

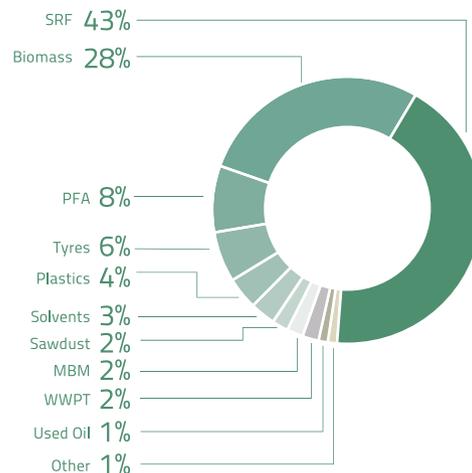
Approximately 40% of the CO<sub>2</sub> generated in the production of cement clinker arises from the carbon content of the fuels used. This arises due to the traditional reliance on fossil fuels within the industry. The remaining CO<sub>2</sub> from decarbonation, is the product of a chemical reaction and cannot be decreased at source. Therefore, alternative fuels, together with energy efficiency, is key to reducing CO<sub>2</sub> emissions in the production of clinker and ultimately, cement. In CRH plants, initiatives being adopted include:

- Use of biomass alternative fuels, such as sawdust, waste water treatment plant (WWTP) outputs and meat and bone meal (MBM), which are carbon neutral.
- Use of other alternative fuels, such as solid recovered fuels (SRF), tyres and solvents, thus making beneficial use of waste materials that would otherwise go to landfill or incineration.

Alternative fuels used in Group cement plants in 2012 amounted to 440k tonnes, a 30% increase on the quantity used in 2011. In the broader context of all Group activities, in 2012 the total usage of alternative fuels was 554k tonnes, a 15% increase on 2011. The CSI KPI (refer to page 69 of this Report) on alternative fuels, which expresses alternative fuels as a percentage of the fuel mix, increased and energy efficiency also improved by approximately 10%.

### Alternative Fuels used in CRH Cement Plants

Total: 440K tonnes



### Alternative Materials

Increasing the portion of alternative raw materials, both in the raw meal kiln input and in the production of blended cements has many environmental benefits. Initiatives include:

- Use of alternative materials to replace virgin quarried raw materials in the kiln raw meal, thus conserving resources.
- Use of alternative materials (such as ground limestone, fly-ash (PFA) and slag) in so far as permitted by technical standards to replace a proportion of clinker in cement (thereby proportionately reducing the CO<sub>2</sub> per tonne of cement).

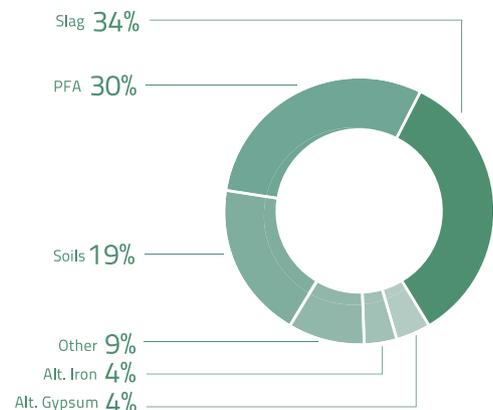
In 2012, a total of 1.5m tonnes of alternative materials were used in Group cement plants. The CSI KPI on alternative materials (refer to page 69 of this Report) as a percentage of clinker and cement improved, due to increased demand in some markets for cement blends containing secondary cementitious materials. Considering all CRH Group activities, in 2012 the total usage of externally sourced alternative materials amounted to 20.1m tonnes.

### Clinker Factor Reduction

CRH is committed to reducing its clinker factor to the lowest possible figure consistent with market requirements for specific products. Reducing the clinker factor of cement is also a key element of reducing CO<sub>2</sub> emissions.

### Alternative Materials used in CRH Cement Plants

Total: 1.5m tonnes



## Case Study

**Reducing specific CO<sub>2</sub> emissions is an imperative in all CRH's activities.**

Energy efficiency and climate change mitigation is a driving force in process and product development in all CRH's activities.

The Group wide specific CO<sub>2</sub> emission from lime production in 2012 was approximately 1.0t/t product, in line with previous years. This level reflects the Group fuel mix portfolio and the significant investments in modern technology in recent years when CRH progressively invested in high efficiency lime kilns which are over 20% more efficient than older kilns.

In the production of asphalt mixes, CRH in the United States has pioneered "warm mix" technology which can reduce energy usage and CO<sub>2</sub> emissions by up to 30% compared to conventional "hot-mix" technology. At the end of 2012, Oldcastle Materials had over

195 warm mix asphalt plants producing over eight million tonnes of warm mix asphalt per annum accounting for 33% of asphalt production. Increased quantities of recycled asphalt pavement (RAP) can be used in warm mix asphalt production, further enhancing the sustainability aspects of the product.

In the production of clay bricks and ceramic tiles, CRH has recently modernised many kilns, each investment yielding significant energy efficiency improvements and CO<sub>2</sub> emission reductions.

Several innovations are also coming through in the production of concrete products and readymixed concrete leading to greater efficiency in the use of cement and in improvements in energy and fuel consumption, hence reducing the carbon footprint of concrete operations.

The transformation of the Ibstock factory at Chesterton, Staffordshire, UK is now nearing completion. The installation of the latest kiln and brick manufacturing technology will make the Chesterton site one of the most energy efficient and environmentally sustainable brickworks of its type in the world today. In addition to energy and water conservation, both noise and transport mitigation measures have been incorporated to minimise external impacts.

The factory represents the largest investment in the region's ceramic industry for many years. One of the most popular cladding materials in the UK is clay brick, finding favour with architects and housebuilders for its aesthetics, value and sustainable credentials.



# Climate Change: Energy Use and Efficiency

**96%**  
of Group own  
transport optimised.

1. Transport of bulk cement by rail from Jura's Wildegg Cement plant in Switzerland provides a fuel-efficient, sustainable means of transport.



## Energy Use and Management

Total Group energy usage in all subsidiaries was 20.8TWh (75.0PJ) in 2012, compared with 22.6TWh in 2011. The decrease is due to improved efficiencies and lower production in some activities. The breakdown of energy usage by fuel type was similar to previous years. Energy efficiency improvements are being rigorously pursued at all CRH's production locations globally and specific energy management teams have been established. Formal energy management systems are being increasingly introduced across the Group. Energy from renewable resources is actively pursued by many companies through use of alternative fuels and purchase of electricity generated from renewable resources.

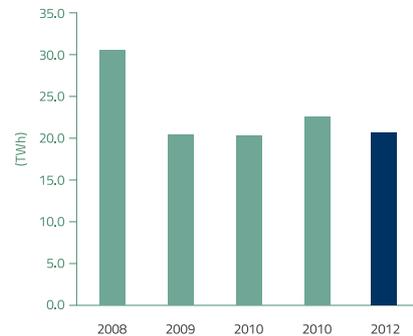
Cement operations accounted for 39% of energy use across the Group. Specific (per tonne of product) energy efficiency data for cement production is given for 2012 and previous years on Page 69, where CSI KPIs are reported for cement activities (including joint ventures and associates on a percentage shareholding basis).

## Transport

CRH Companies are focusing on optimising transport to reduce fuel usage and correspondingly their overall carbon footprint. Transport optimisation also has the benefit of reducing other air emissions. Transport by road is the most common mode, driven by the imperatives of timely delivery to a diverse and local customer base. Where possible, Group companies use fuel-efficient rail, boat or barge transport. These modes are ideal for larger bulk consignments over generally longer distances to fixed destinations. In the United States, CRH has invested specifically in rail, boat and barge transport companies and facilities.

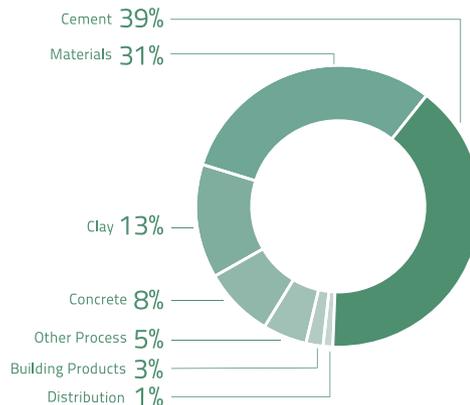
Most CRH Group companies have initiatives in place to optimise transport through, for example, use of GPS in route planning, ensuring full loads, fleet management, engine idling alerts and maximising back-loading. These initiatives, not only reduce emissions, but also contribute towards improved customer service and reduced delivery costs.

## Energy Use



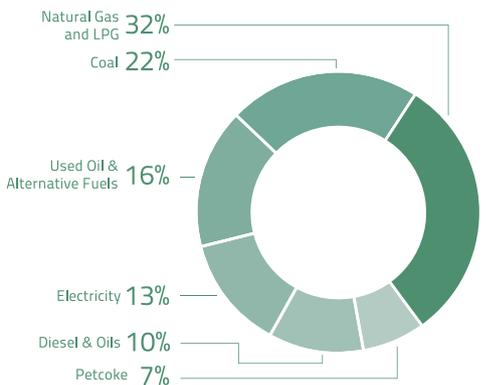
## Energy Use by Activity

Total: 20.8TWh (75.0PJ)



## Energy Use by Source

Total: 20.8TWh (75.0PJ)



## Air Reduction Commitment

**Achieved 50%**  
reduction in cement  
specific particulates by  
2012, ahead of target.

**Achieved 10%**  
reduction in cement  
specific NO<sub>x</sub> by 2012,  
ahead of target.

Having met its air emission reduction commitments ahead of the 2015 target date, CRH is now committing to further reductions as follows:

- 80% reduction in mean specific particulate emission by 2020 compared with 2006 levels (437g/t clinker).
- 22% reduction in mean specific NO<sub>x</sub> emissions by 2020 compared with 2006 levels (1,763g/t clinker).

The commitment covers a defined portfolio of clinker plants within the CRH Group at the beginning of 2013 and includes facilities in Finland, Ireland, Poland, Spain, Switzerland and Ukraine. CRH is confident that its strategic programmes will deliver this commitment on target.

As part of its strategic vision of being a responsible leader in building materials and in line with its CSI sustainability obligations, CRH is committed to reducing air emissions from clinker production. In 2008, CRH committed to achieving a 50% reduction in the mean specific particulate emissions by 2015 compared with the 2006 specific emissions and in addition, to achieving a 10% reduction in the mean specific NO<sub>x</sub> emissions by 2015 compared with the 2006 specific emissions.

Particulate emissions at many plants were reduced significantly in recent years as a result of filter upgrades and plant optimisation. With the coming on-stream of the new dry process line at Podilsky Cement in Ukraine, particulate

emissions substantially decreased compared to past values. In 2012, a particulate reduction of 50% on the base year was achieved.

NO<sub>x</sub> emissions for the plants within the commitment reduced, as a result of the use of alternative fuels, installation of Selective Non-Catalytic Reduction (SNCR) equipment on many kilns and other performance improvements. In 2011, a NO<sub>x</sub> reduction of 15% on the base year had already been achieved, and this has been maintained for 2012.

As CRH is already at a very low SO<sub>x</sub> level, it is not technically practicable to attain further decreases; accordingly a reduction commitment is not appropriate.

1. The energy-efficient dry process line at Podilsky Cement in Ukraine incorporates sophisticated air emission abatement equipment which also includes several energy saving features and results in very low stack particulate emissions.



# Air Emissions

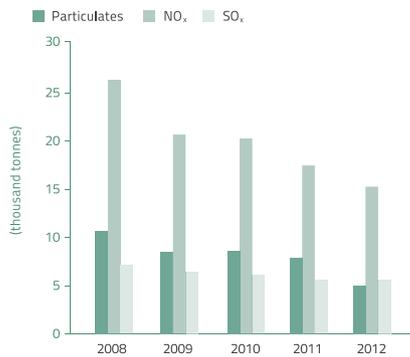
Within the CRH Group, the greater proportion of stack air emissions arise from cement plants, with cement accounting for a significant portion of particulate, NO<sub>x</sub> and SO<sub>x</sub> emissions. CRH's air emissions reduction commitment is therefore focused on cement production. In addition, many Group companies have programmes to improve air quality, which generally include investing in new abatement technology and implementing operational efficiencies to reduce potential air emissions. For the entire CRH Group, particulate emissions, at 4.8k tonnes, are reduced on the 2011 figure of 7.8k tonnes. This decrease is largely attributed to reductions in emissions from the Podilsky Cement Plant due to the new dry process cement plant. NO<sub>x</sub> emissions (Nitrogen Oxides), in 2012 decreased to 15.2k tonnes from the 2011 figure of 17.5k tonnes due to increased abatement in cement activities. SO<sub>x</sub> emissions (Sulphur Oxides), in 2012, at 5.6k tonnes, were unchanged from the 2011 quantities.

## CSI Key Performance Indicators

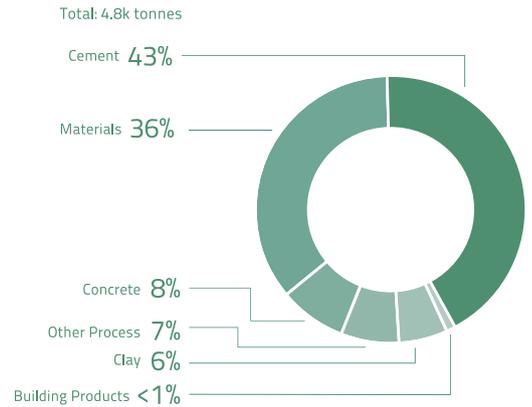
CRH Reports on the agreed CSI key performance indicators (KPIs) for its cement activities as shown on page 69. It should be noted that many of these KPIs include subsidiaries in addition to joint ventures and some associates on a percentage shareholding basis and the resultant figures should be reviewed separately from those relating to the commitments noted on page 38 and the total Group air emissions.

Regarding the CSI air emissions KPIs, the particulate and NO<sub>x</sub> emissions declined due to the reasons outlined earlier. The marginal increase in SO<sub>x</sub> reflects an increased use of alternative fuels in some plants. SO<sub>x</sub> emissions in general are low due to low sulphur raw materials and the scrubbing effect of clinker production.

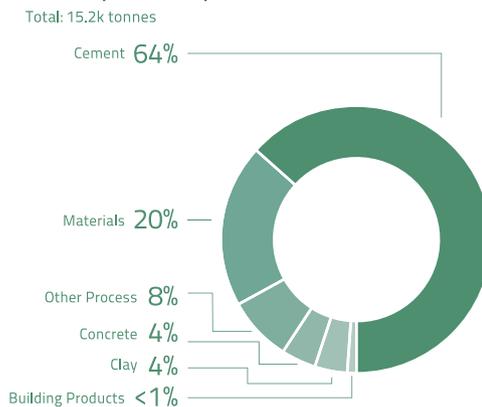
### Air Emissions - Particulates, NO<sub>x</sub>, SO<sub>x</sub>



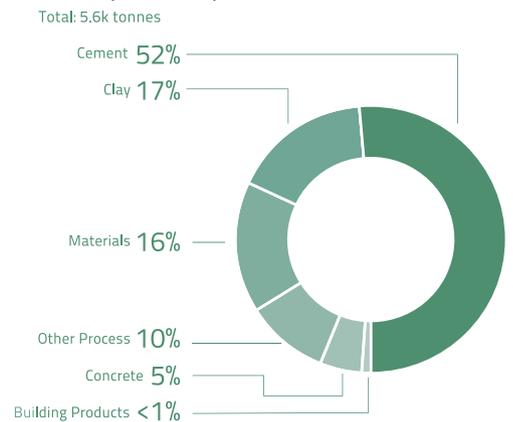
### Particulates by Activity



### NO<sub>x</sub> by Activity



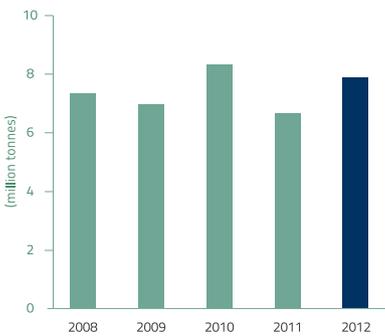
### SO<sub>x</sub> by Activity



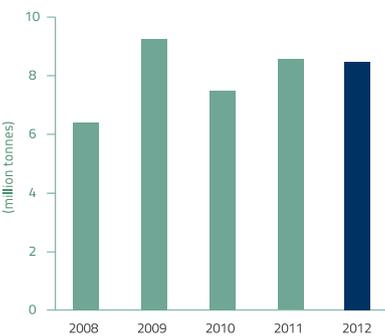
# Materials Recycling

**20m tonnes**  
of materials recycled  
by Group companies.

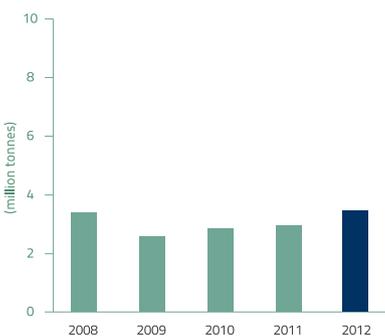
Alternative Raw Materials  
RAP



Alternative Raw Materials  
C&D



Alternative Raw Materials  
Other



CRH's environmental policy requires optimisation of the use of resources. Where practicable and technically feasible, CRH recycles externally sourced used inert materials in its production processes, using materials that would otherwise go to landfill. This has both environmental and financial benefits. The percentage of recycled materials used in finished products depends on the product and process and averages approximately 9% overall.

CRH strives to maximise the quantities of recycled materials used according to local market availability. The components of the 20.1m tonnes of recycled materials used by Group companies in 2012 were:

- 8.0m tonnes of Recycled Asphalt Pavement (RAP) materials: these arise when existing road or runway surfaces are milled or crushed and reused as a raw material for new asphalt mixes.
- 8.6m tonnes of Construction & Demolition (C&D) materials: these arise from construction and demolition activities and can replace virgin aggregates or can be reused for fill applications.
- 3.5m tonnes of fly-ash, slag and other materials with cementitious properties which are by-product materials sourced mainly from external power generation and steel production respectively.

1. Rinke Veld commercial director of Struyk Verwo Infra with officials from the city of Purmerend and examples of the "C4C – Cycle 4 Concrete" service that is offered, where end of life paving materials are collected and processed into high quality paving products for supply back to the client.



# Waste Management

**700k tonnes**  
waste recycled.

CRH's environmental policy is to minimise waste generation and to recycle waste where possible. Hence CRH companies operate to the following principle: In production processes, any by-product is internally recycled back into the process where possible, thereby reducing raw material usage and enhancing process efficiency. In 2012, 41% of companies noted such internal recycling. Remaining waste is minimised and recycled externally where possible. This is mostly inert waste and predominantly comprises concrete from readymixed and concrete products production.

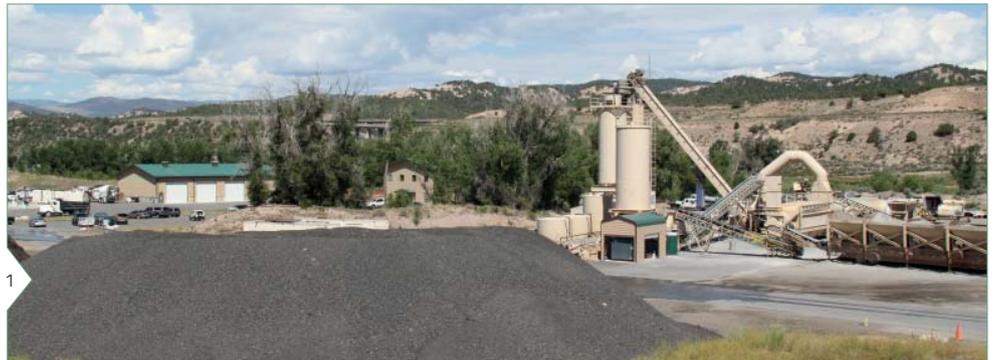
recycled is maximised as a matter of policy, but will vary from year to year depending on local conditions and in 2012 was approximately 72%. The quantity of waste generated that can be externally recycled decreased in 2012 thus contributing to the reduction in the percentage of waste recycled by Group companies.

CRH is committed to participating in European national packaging waste recycling schemes and the total number of active Group locations currently participating in such schemes is now 852 (808 in 2011). Such schemes are not a feature of industrial waste management in the United States.

Most locations make every effort to maximise the recycling of waste going off-site. When not possible, waste is sent for final disposal to licenced sites. Over a five year period the total amount of waste generated has decreased by 40% (1.0m tonnes in 2012). External recycling accounted for 700k tonnes with 300k tonnes sent for disposal. Only 3k tonnes disposed were hazardous. The portion of waste being

A small number of Group companies are permitted to landfill waste on-site and in these cases it is carried out strictly to the permit requirements. All Group companies take extensive precautions to prevent any incidents of unauthorised waste disposal.

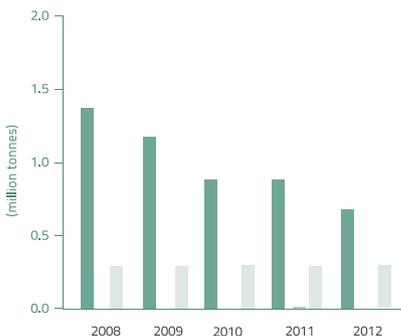
1. B&B Excavating, part of Oldcastle SW Group, US, is one of Western Colorado's leading producers of sand, rock, ready mixed concrete, asphalt and paving and three years ago set a goal to reduce its environmental footprint. The company designated a plan of action at its Montgomery operation site in Eagle, Colorado that included 13 goals, action steps and desired results. The first one of these goals was a targeted reduction in materials sent to landfill through development of recycling asphalt capabilities. The success has led to the diversion of over 40,000 tonnes of waste from landfill per year. The company is also now a leader in the industry for the utilization of RAP and production of WMA.



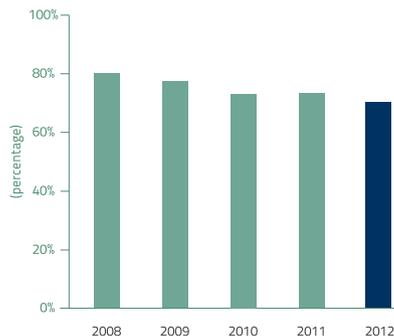
## Waste Generation

Total: 1.0m tonnes

■ External Recycling ■ Hazardous Disposed ■ Other Disposed

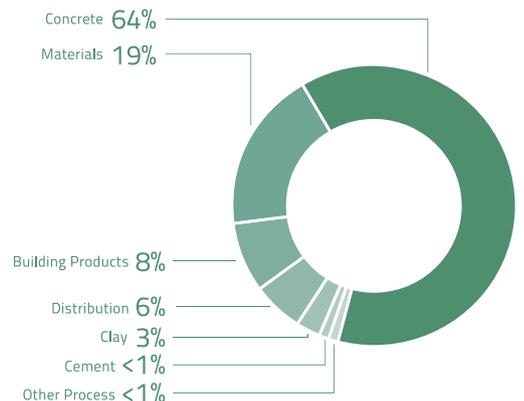


## Waste Recycled



## Waste by Activity

Total: 1.0m tonnes



# Water Management

CRH's environmental policy is to minimise its use of natural resources including water. Water is an area of interest for many stakeholders. Efficiency of resource use, particularly in regions deemed to be subject to water-stress, is a key concern.

Intake of water for process activities can often be abstracted from several sources all of which may not be metered; hence precise determination of intake quantities is sometimes difficult, though this remains the Group's objective. As a best estimate, CRH water intake in 2012 was 36m m<sup>3</sup>. The largest usage is in Materials activities, where water is used for processing, washing and dust suppression. Some 60% of water intake is sourced as surface water including rainwater, while well water accounts for 27% and mains supply for 13%.

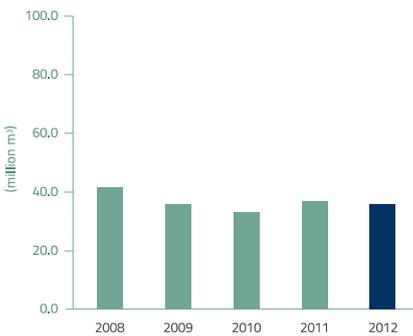
CRH emphasises reduction in process water intake through water recycling. In 2012, 764 active Group locations recycled process water and this represented an estimated 77% of Group total water usage. Additionally, 323 active locations used rainwater in their operations.

As with water intake, water discharge can also be difficult to quantify, not only because it is

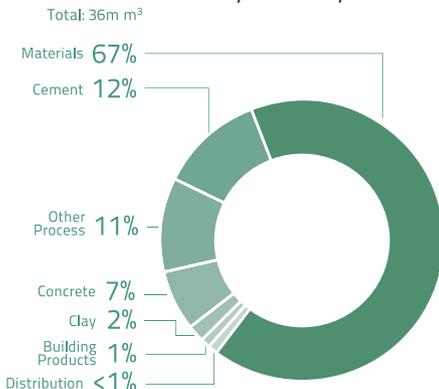
often not metered, but also because of the contribution of stormwater. Locations employ settling ponds and other solutions to ensure suspended solids meet good practice discharge limits, while pH can also be brought to acceptable levels if the natural neutralisation process is insufficient. Oil-water separators are used if there is a risk of oil spillage from a plant.

Water-stressed regions are defined by the World Business Council for Sustainable Development (WBCSD) as being regions where water availability does not meet the demand from all industrial, agricultural and domestic users. Although it is difficult to determine a precise measure for water-stress, the World Resources Institute proposes that it is experienced by countries suffering from periodic water shortages, where water supplies are below 1,700m<sup>3</sup>/person/annum. CRH does not generally operate in areas which are water stressed. The only operations within or close to areas of water stress are small localised quarries, production plants and distribution outlets in the southwest of the United States.

## Water Usage



## Water Intake by Activity



1. Pennsy Supply, Pennsylvania, US worked with the Doc Fritchey Chapter of Trout Unlimited, a charity aiming to conserve, protect and restore the coldwater resources of south central Pennsylvania, in a stream diversion project near the Prescott Quarry. In September 2012, the newly-constructed stream channel was opened. As the original streamflow receded, DFTU members joined Pennsy volunteers to net and transport trout and macroinvertebrates to the newly-opened channel.



## Restoration and Heritage

# 97%

of Group quarries  
& pits have formal  
reinstatement plans.

### Restoration

A significant proportion of the raw materials used by CRH Group companies is extracted from quarries, sand & gravel pits and clay pits, typically over a long operating lifetime. When these raw materials are fully extracted, good environmental stewardship demands that CRH reinstates these areas or finds another appropriate after-use, in consultation with the local permitting authorities, neighbours and other stakeholders.

Each year, Group companies continue to reinstate and landscape worked-out quarries and pits. In 2012, a total of 698 hectares were reinstated. The reinstated areas average out at about 1.0% per annum of total quarry and pit area. The actual amount of reinstatement achieved in any one year depends on the closure of specific quarries or pits as reinstatement and landscaping can typically only be carried out close to completion of excavation activities.

A significant 97% of Group quarries and pits have formal reinstatement plans. Reinstatement often includes tree planting and a further 430,000 trees were planted in 2012 bringing to 1.3m the number of trees planted by Group companies over the last five years.

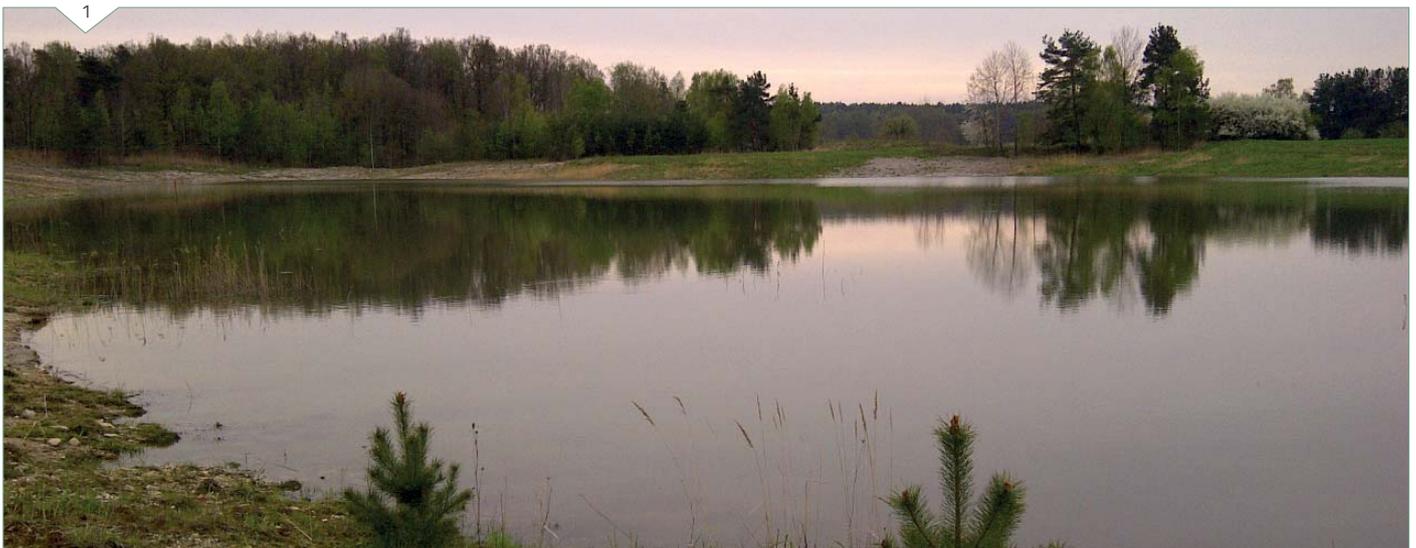
### Heritage

CRH considers that protecting and preserving cultural heritage for future generations is an essential aspect of being a responsible company as the heritage that survives from the past is non-renewable and may be unique.

All new quarries and pit areas are surveyed where appropriate by archaeologists to check if there is potential for any archaeological interest on the site.

Within the CRH Group, there are 13 Group companies protecting particular cultural heritage features at 26 locations. Joint ventures and associates are preserving cultural heritage aspects at a further six locations.

1. CRH Clay Solutions is restoring a worked-out area of its clay pit in Oberlausitz, Germany. The slopes have been re-graded and the pit allowed to fill with water, providing a new aquatic habitat for wildlife in the area. The surrounding area has been landscaped and planted with native plant species.



## Case Study

## Biodiversity

Many CRH Group quarries and pits, even during normal operations, are favoured by wildlife as a safe and natural habitat, and, with appropriate restoration, can become even more enriched after final reinstatement takes place. Biodiversity can be enhanced and protected both during and after extraction of raw materials and this is important for the protection and preservation of special species as well as for the enhancement of local biodiversity. At many extractive locations, in particular, wetland and terrestrial habitats can be created and maintained.

Biodiversity management strives to enhance natural habitats while mitigating potential negative impacts of operations such as fragmentation of biodiversity corridors, impacts on water quality and disturbance to birds or animals. All environmental impact assessments associated with permit

applications require management plans for site biodiversity.

Working with local and national stakeholders has become a key feature of biodiversity management at many Group locations. Areas where wildlife is fostered can become an educational resource for students of all levels.

While almost every quarry and pit has some form of associated biodiversity, several quarries and pits are noted for special biodiversity such as particular species of flora and fauna. Specific biodiversity is currently being actively managed at 128 locations across the CRH Group in Argentina, China, Finland, Ireland, the Netherlands, Poland, Switzerland, UK, Ukraine and the United States. A further two locations within joint ventures and associates are noted for special biodiversity species.



Since 2004, Oldcastle Materials has partnered with the Wildlife Habitat Council (WHC) to improve biodiversity on its corporate lands. This partnership provides an opportunity for Oldcastle Materials locations to establish wildlife habitat sites on the company's landholdings. Oldcastle Materials' wildlife habitat sites vary in type and scope. Some are large-scale restorations of prairies and wetlands, while others are designed to foster individual species of animals or plants. The establishment of a wildlife habitat site is strictly voluntary, and the sites can be on excess property, in buffer zones, on small plots adjacent to active facilities or even at facilities' entrances. Oldcastle Materials actively supports this program and has 15 wildlife habitat sites certified by the WHC. The public recognition gained by these sites demonstrates the commitment of Oldcastle Materials to improving biodiversity.

*(Photo (top): Volunteers improving wildlife habitat at Shelly Company's Ostrander location, Ohio, US. (bottom): Wildlife at Tilcon's Mount Hope location, New Jersey, US).*





*The CRH Board, photographed during a visit to the APG Research and Development facility in Montreal, Canada. Left to right: Bill Egan, Mark Towe, Maeve Carton, Albert Manifold, Dan O'Connor, John Kennedy, Nicky Hartery, Jan Maarten de Jong, Utz-Hellmuth Felcht, Ernst Bärtschi, Myles Lee, Heather Ann McSharry.*

# Governance

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CRH is widely recognised as operating to the highest standards of corporate governance. This section provides an overview of the Group's governance structures at Board and at operating level and explains how the Group ensures that its governance principles are implemented in an appropriate manner. It also records compliance with the relevant statutory and regulatory guidelines. Further detailed information may be found in the 2012 Annual Report and in the 2012 Annual Report on Form 20-F filed with the US Securities & Exchange Commission, both of which are available on [www.crh.com](http://www.crh.com).

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**47** Board of Directors  
**48** Corporate Governance

**49** Compliance and Ethics  
**51** Risk Management

## Board of Directors

**The Directors and management of CRH are committed to maintaining the highest standards of corporate governance and ethical business conduct.**



Mr. Nicky Hartery, Chairman since May 2012, has been a member of the CRH Board since June 2004. On his appointment as Chairman, he met the independence criteria set out in the UK Corporate Governance Code.

### The Board

The CRH Board is responsible for the leadership, oversight, control, development and long-term success of the Group. The Board is also responsible for instilling the appropriate culture, values and behaviour throughout the organisation. There is a formal schedule of matters reserved to the Board for consideration and decision. This includes Board appointments, approval of the Annual Report, the Interim Results and the annual budget, major acquisitions, significant capital expenditure and approval of the strategic plans for the Group. There were eight full Board meetings during 2012.

It has been CRH's practice since the formation of the Group in the 1970s that the roles of Chairman and Chief Executive are not combined. A clear division of responsibilities is set out in the Corporate Governance Report of the Annual Report. The Board has delegated responsibility for the management of the Group, through the Chief Executive, to executive management.

It is also the practice that a majority of the Board comprises non-executive Directors. At present, there are four executive and eight non-executive Directors. The independence of non-executive Directors is considered annually and all non-executive Directors are considered by the Board to be independent. Non-executive Directors are expected to challenge management proposals constructively and to examine and review management performance in meeting agreed objectives and targets. In addition, they are expected to draw on their experience and knowledge in respect of any challenges facing the Group and in relation to the development of proposals on strategy. The non-executive Directors generally meet before or after each Board meeting without executives being present.

Directors are appointed for specified terms and are subject to the Memorandum and Articles of Association of the company. The Directors are committed to ensuring that the Board is sufficiently diverse and appropriately balanced.

In terms of Board renewal, four criteria are taken into consideration: (i) international business experience; (ii) skills, knowledge and expertise in areas relevant to the operation of the Board; (iii) diversity, including nationality and gender; (iv) the need for an appropriately sized Board. Each, or a combination, of these factors can take priority. Consequently, to date the Board has not set specific objectives in relation to diversity.

All Directors retire at each Annual General Meeting and submit themselves to shareholders for re-election. Directors who are seeking re-election are subject to a satisfactory performance appraisal.

### Induction and Development

New Directors are provided with extensive briefing materials and a tailored induction programme on the Group and its operations. The Chairman conducts a formal evaluation of individual Directors annually, which includes review of training needs where appropriate. Directors can also avail of opportunities to hear the views of and meet with the Group's investors and analysts. Directors regularly receive copies of research and analysis conducted on CRH and the building materials sector. The Board receive regular updates from the external auditors in relation to regulatory and accounting developments. Updates in relation to other relevant matters, for example, changes in company law, are provided from time to time. Directors also meet with key executives and, in the course of twice-yearly visits by the Board to Group locations, see CRH businesses at first hand and meet with local management.

### Company Secretary

All Directors have access to the advice and services of the Company Secretary, who is responsible to the Board for ensuring that Board procedures are complied with.

## Corporate Governance

### Senior Independent Director

Dan O'Connor was appointed as Senior Independent Director in 2012. He is available to shareholders who have concerns that cannot be addressed through the Chairman, Chief Executive or Finance Director.

### Board Evaluation

The Senior Independent Director conducts an annual review of corporate governance, the operation and performance of the Board and its Committees and the performance of the Chairman.

In 2012, the board evaluation process was supplemented by an external evaluation exercise. The overall outcome of this exercise was very positive. A small number of relatively minor and focussed adjustments were recommended, which have either been implemented or will be implemented during 2013.

### Sustainability - CSR

Sustainability and Corporate Social Responsibility concepts are embedded in all CRH operations and activities. Excellence in these areas is a daily key priority of management. The Group Chief Executive, through the executive management, is responsible for ensuring the Group's sustainability and CSR policies are continuously implemented. Reports on these are regularly provided to the Board.

### Board Committees

The Board has established five permanent Committees to assist in the execution of its

responsibilities. These are the Acquisitions Committee, the Audit Committee, the Finance Committee, the Nomination & Corporate Governance Committee and the Remuneration Committee. Ad hoc Committees are formed from time to time to deal with specific matters.

Each of the permanent Committees has terms of reference, under which authority is delegated to them by the Board. The Chairman of each Committee reports to the Board on its deliberations and minutes of all Committee meetings are circulated to all Directors.

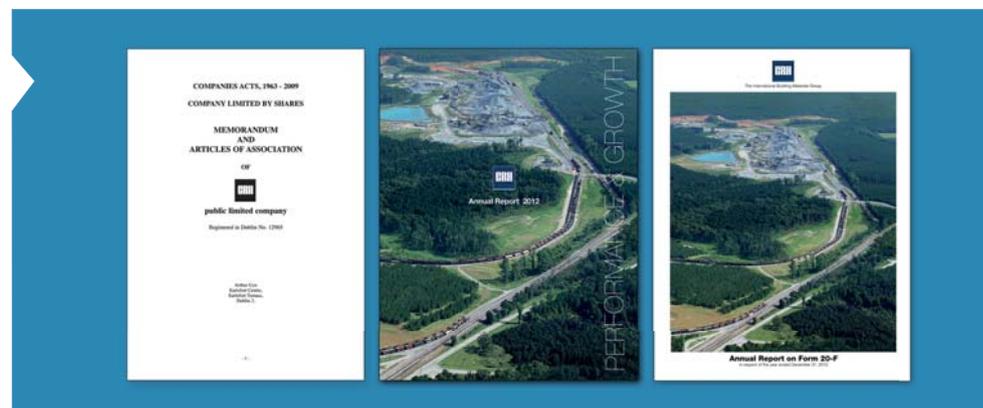
The current memberships and terms of reference are available on the Group's website.

Chairmen of the Committees attend the Annual General Meeting and are available to answer questions from shareholders. During the year each of the relevant Committees reviewed its performance and terms of reference. Further detailed information on the roles and responsibilities of the Board and its Committees and the work undertaken during 2012 are available in the CRH 2012 Annual Report.

### Compliance

In 2012, CRH complied with the provisions of the 2010 UK Corporate Governance Code. The Company also complied with the rules issued by the United States Securities and Exchange Commission to implement the Sarbanes-Oxley Act 2002, in so far as they apply to the Group.

Further detailed information on Corporate Governance may be found in the Memorandum and Articles of Association, the Annual Report 2012 and in the 2012 Annual Report on Form 20-F filed with the US Securities & Exchange Commission, all of which are available on [www.crh.com](http://www.crh.com).



## Compliance and Ethics

**At CRH there is never a right business reason to do the wrong thing.**

CRH is firmly committed to working ethically and responsibly and upholding its core values of integrity, honesty and respect for the law in all business interactions. Only in this way can the Group maintain its continued success and safeguard its excellent reputation. Ensuring that managers and employees act in a manner consistent with these core values becomes of greater importance as CRH develops a more diverse, global footprint.

CRH's approach is to prevent compliance-related issues through appropriate policies, procedures, training and communication, while also ensuring an appropriate response to suspected or actual compliance breaches, through requisite monitoring, assurance and investigative procedures. In recent years CRH has enhanced its compliance and ethics (C&E) structures so that they are fully aligned with Group values and objectives and underpin a consistency of approach across key governance areas. Specific improvements included:

- Strengthened C&E organisation.
- Updated Code of Business Conduct and related policies.
- Expanded training programmes.
- Promoted honesty and integrity awareness through group-wide communications and briefings.
- Formalised C&E due diligence processes in M&A, supply chain and with business partners.
- Improved communication channels for reporting unethical conduct and enhanced investigation procedures.
- Revised monitoring protocols.

### Compliance & Ethics Organisation

The Head of Group C&E, who has direct access to the CRH Group Chief Executive, is responsible for the design and implementation of the C&E strategy and reports to the Executive and Audit committees.

Senior managers in each division oversee the implementation of the programme with support from dedicated Country Compliance Coordinators. During 2012, additional dedicated compliance resources were committed to drive further programme effectiveness.

### Codes and Policies

CRH has implemented a formal Code of Business Conduct since 2003. The Code was updated in February 2012 in line with legislative developments and best practices, translated into 21 languages and distributed across the Group. It is available at [www.crh.com](http://www.crh.com) and systematically addresses: protecting integrity; doing business in a responsible way; dealing with customers, suppliers & the community; treating people with honesty & respect; managing health & safety and the environment.

Ancillary policies have also been updated during 2012 to incorporate practical guidelines and accessible language, clarify reporting requirements and include sources of further support and advice. These include the Code of Business Conduct Guidelines, Anti-Bribery Policy (in line with the requirements of the UK Bribery Act), Anti-Fraud Policy, Competition/Anti-Trust Compliance Code, Shares and Securities Dealing Policy, Ethical Procurement Code and the C&E Mergers, Acquisition and Joint Venture Due Diligence Programme.



## Compliance and Ethics

CRH operates an open culture where employees are encouraged, without any fear of retaliation, to “Speak Up” if they see, hear or suspect inappropriate, illegal, unsafe or unethical behaviour.

### Training and Communication

A rigorous and comprehensive training programme on the Code of Business Conduct is in place to ensure all relevant employees understand their compliance responsibilities and are supported in their ethical decision making. This programme is undertaken by employees at minimum every two years and by new employees as part of their induction.

A risk-based approach is taken to identify training requirements in Anti-Bribery, Corruption & Fraud and Competition/Anti-Trust Law. All management levels and a broad cross-section of sales staff receive this training.

In 2012, there were a total of 261 hotline calls (359 in 2011), mostly in US. An analysis by type is shown below. As in prior years, the majority of cases relate to human resource issues. All of the issues raised have either been resolved or are being appropriately managed.

In 2012, investigations following “Hotline” calls resulted in seven employee terminations. In addition, a communication received from outside the Hotline in 2012 resulted in the termination of four employees.

### Monitoring and Review

Every year each company and division formally certifies their compliance with the programme. The certificates for 2012 were reviewed and assessed by the C&E team, rated and combined with an assessment of underlying market risk for each country and reported to the CRH Audit Committee.

Other than those referred to in the Hotline section above, no other serious breaches of the Code of Business Conduct or related policies were reported during the year.

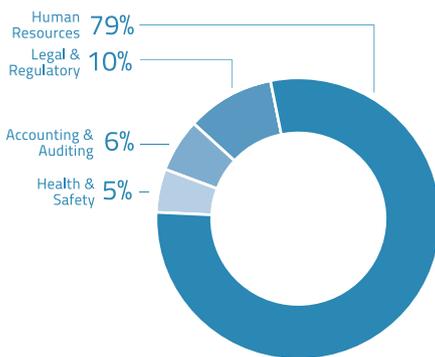
The C&E team and Internal Audit work together in an integrated way and have developed Internal Audit Programmes to test the effective implementation and application of the new policies and procedures.

### Employee Hotline

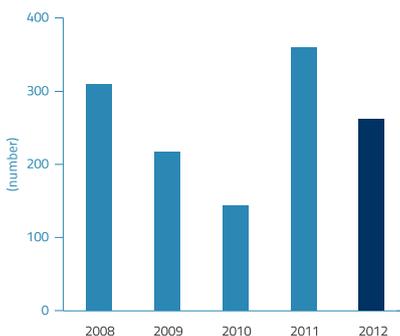
CRH operates a confidential telephone line (“Hotline”) for those who wish to raise a concern. The “Hotline” operates 24/7 in 35 countries and in over 20 languages. A web-based alternative is also available. Procedures ensure that concerns are systematically dealt with and appropriate actions taken.

In addition, the C&E helpdesk is available to assist employees with any questions or concerns. Contact details for these services and the persons to whom concerns can be addressed are communicated within the Code of Business Conduct, on the CRH website and in various company communications.

Hotline Calls by Type



Hotline Calls



1. Participants at the Compliance network's annual conference in Amsterdam in November 2012. The Compliance network has an agreed schedule of meetings, webinars and an annual conference in addition to regular updates including monthly alerts and quarterly newsletters while a dedicated intranet site helps facilitate information exchange and sharing of best practice.



## Risk Management

**The Board and Audit Committee receive, on a regular basis, reports from management on the key risks.**

The Board has delegated responsibility for the monitoring of the effectiveness of the Group's risk management and internal control systems to the Audit Committee. Such systems are designed to manage rather than eliminate the risk of failure to achieve business objectives and, in the case of internal control systems, can provide only reasonable and not absolute assurance against material misstatement or loss. Group management has responsibility for major strategic development and financing decisions. Responsibility for operational issues is devolved, subject to limits of authority, to product group and operating company management. Management at all levels is responsible for internal control over the business functions that have been delegated. This embedding of the system of internal control throughout the Group's operations ensures that the organisation is capable of responding quickly to evolving business risks and that significant internal control issues, should they arise, are reported promptly to appropriate levels of management. This system of risk management and control is supported by the Group Strategic Financial Risk Manager, Head of Internal Audit, Head of Compliance & Ethics and Group Sustainability Manager. Management of sustainability-related risk at CRH falls within these structures for risk management throughout the Group.

In compliance with the Group's Enterprise Risk Management framework, a regular review of the appropriateness of the principal risks and uncertainties facing the Group and its

subsidiaries, joint ventures and associates is undertaken by management. This review has confirmed that the systems in place are robust and appropriately reflect the organisational structure and diversity of the Group. The Board and Audit Committee receive, on a regular basis, reports from management on the key risks to the business and the steps being taken to manage such risks and consider whether the significant risks faced by the Group are being identified, evaluated and appropriately managed, having regard to the balance of risk, cost and opportunity. In the 2012 Annual Report, the Directors confirmed that, in addition to the monitoring carried out by the Audit Committee under its terms of reference, they had reviewed the effectiveness of the Group's risk management and internal control systems up to and including the date of approval of the financial statements. This had regard to all material controls, including financial, operational and compliance controls, that could affect the Group's business.

The sustainability risk table below focuses solely on sustainability-related risks. A full list of the Principal Risks and Uncertainties faced by the Group is provided on pages 68 and 69 of the 2012 Annual Report and pages 23 to 28 of the 2012 Annual Report on Form 20-F. In addition, further disclosure in relation to risk management and internal controls is provided on pages 50 and 51 of the 2012 Annual Report and pages 66 and 67 of the 2012 Annual Report on Form 20-F.

### Sustainability Risk Table

Health, Safety and Social	
Examples of Risk Factors	Mitigation
CRH is subject to stringent and evolving Corporate Social Responsibility principles including health and safety management and social performance laws, regulations and standards which may give rise to compliance costs.	To comply with Health and Safety and Social regulations, CRH has developed a Group Health and Safety Policy (page 19) and a Group Social Policy (page 55), both of which are approved by the CRH Board and implemented across all Group companies. Health and safety management is a daily priority of line management in every CRH location. CRH companies support, in so far as they are applicable, the principles as set out in the articles of the United Nations' Universal Declaration of Human Rights and the International Labour Organisation (ILO) Core Labour Principles.

## Risk Management

### Environment and climate change

Examples of Risk Factors	Mitigation
<p>CRH is subject to a broad and increasingly stringent range of existing and evolving environmental laws, regulations, standards and best practices in each of the jurisdictions in which it operates giving rise to significant compliance costs, remediation costs, potential legal liability exposure and potential limitations on the development of operations. These laws, regulations, standards and best practices relate to, amongst other things, climate change, noise, emissions to air, water and soil, the use and handling of hazardous materials and waste disposal practices. The risk of increased environmental and other compliance costs and unplanned capital expenditure is inherent in CRH's business.</p>	<p>To comply with environmental regulations, CRH has developed a Group Environmental Policy (page 29), approved by the CRH Board and applied across all Group companies. The environmental policy includes proactively addressing the challenges of climate change and the Group is actively engaged in carbon mitigation strategies. CRH applies strict environmental operating standards and undertakes extensive environmental due diligence in relation to acquisitions including use of third-party experts.</p>

### Governance, Laws and Regulations

Examples of Risk Factors	Mitigation
<p>CRH is subject to many laws and regulations (both local and international), including those relating to competition law, corruption and fraud, throughout the many jurisdictions in which it operates and is thus exposed to changes in those laws and regulations and to the outcome of any investigations conducted by governmental, international and other regulatory authorities, which may result in the imposition of fines and/or sanctions for non-compliance.</p>	<p>The Group's policies and procedures detailed in the Code of Business Conduct (page 49) are designed to reinforce high standards of business conduct and to ensure employees everywhere act in a manner consistent with CRH's core values. The Head of Compliance and Ethics reports regularly to the Audit Committee.</p>

### Human Resources

Examples of Risk Factors	Mitigation
<p>Existing processes to recruit, develop and retain talented individuals and promote their mobility within a decentralised Group may be inadequate thus giving rise to management attrition and difficulties in succession planning and potentially impeding the continued realisation of the Group's core strategy of performance and growth.</p>	<p>The identification and subsequent assessment, management, development and deployment of the human resource management framework focuses on the operation of integrated and targeted programmes of performance management, leadership development (including international assignments, where appropriate), coaching and mentoring. The appropriateness of these programmes is reviewed on a regular basis to ensure that they mirror best practices.</p>

### External Communications

Examples of Risk Factors	Mitigation
<p>The company's sustainability-related communications often contain forward-looking statements which by their very nature involve uncertainty. The Group's actual sustainability performance may differ from what has been communicated due to a variety of internal and external factors.</p>	<p>CRH undertakes regular communication with its stakeholders. Sustainability communications with the outside world play a very important part in the reputational and financial evaluation of the Group. All communications to the media relating to financial performance, acquisitions, disposals and any matter which could have a reputational impact on the Group are handled exclusively by persons nominated by the CRH Group Chief Executive Officer.</p>



CRH maintains close relationships with local stakeholders in the countries in which it operates. Shown are some of the 40 staff of the local authority Aargau Cantonal Civil Engineering Office, who visited the dredging plant at Jura's WABAG operation on Lake Lucerne, Switzerland.

# People and Community

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At the heart of CRH are the people and communities which both support and are supported by Group companies operating at over 3,500 locations in 35 countries. CRH believes that continued sustainable business success depends on the excellent relationships maintained with stakeholders and this section describes CRH's approach to this wide area. It covers the Social Policy and its implementation and profiles some of the many social and community initiatives in place, as well as providing examples of the charitable partnerships that exist across the Group.

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- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| <b>55</b> Social Policy           | <b>62</b> Supply Chain Management |
| <b>56</b> Employment Features     | <b>63</b> Community Engagement    |
| <b>57</b> Employee Development    | <b>64</b> Community Activities    |
| <b>59</b> Human and Labour Rights | <b>65</b> Community Support       |
| <b>60</b> Management Development  | <b>67</b> Sustainability Awards   |
| <b>61</b> Customer Service        | <b>68</b> External Endorsements   |

## Social Policy

# 76,000

employed in Group  
Companies in 35  
countries worldwide.

### Implementation

CRH fully respects the various cultures and traditions which prevail in the regions in which the Group operates and believes that continued business success is rooted in the excellent relationships maintained with all stakeholders – including employees, customers, suppliers, neighbours and other stakeholders.

The Social Policy, together with the CRH Code of Business Conduct and associated policies, outlines key management responsibilities in relation to employment, purchasing, competition and customer relationships. Company Managing Directors are responsible for the implementation of CRH employment policies, guidelines and objectives in their areas of responsibility. They are supported in this role and in reporting at

Group level by their Human Resources (HR) teams which have a functional reporting line through product group and Divisional HR Directors. Operating company management is responsible for managing customer and supplier relations in local markets in accordance with overall CRH policy. This work is supported by national, regional or product group contacts with large customers and with suppliers of critical inputs such as raw materials and energy.

The thorough implementation of the CRH Social Policy is verified through the Code of Business Conduct Certification, the Social component of the Sustainability Reviews and ongoing engagement at every level of the Group.

### Policy

CRH's Social Policy, applied across all Group companies, is to:

- Comply, at a minimum, with all applicable legislation and ensure that our social stewardship is consistent with industry best practice.
- Manage our businesses in a fair and equitable manner, meeting all our social responsibilities as both a direct and indirect employer.
- Support freedom of association and recognise the right to collective bargaining.
- Prohibit forced, compulsory and child labour.
- 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.
- Ensure that we deal responsibly with our suppliers and customers in accordance with our Code of Business Conduct and proper business practice.

1. In May 2012, a cross-product group Oldcastle team including the Oldcastle Strategic Sourcing Team, Staker Parson Companies and Amcor Masonry, joined together to make a positive impact in the Salt Lake City community, Utah, US. The three groups collaborated to enhance the experience for children, staff and volunteers at the Christmas Box House, a non-profit transitional facility that improves the quality of life for hundreds of children each year. The 60 volunteers focused their efforts on creating a wonderful entrance and beautiful grounds using materials donated by their companies.



# Employment Features

Details of the geography, age, gender and employment category of the 76,000 people working for CRH is outlined in the graphs on this page.

When analysing employment data, certain characteristics of the industry should be noted. Many jobs in CRH companies are physically demanding, often outdoors. Also, the seasonal and cyclical nature of the industry places particular demands on management and the workforce to deal with peaks and troughs in demand. As CRH continues to develop, there is an ongoing need to acquire new skills, both at an operational level and related to continuous improvement of safety, quality and environmental performance.

The number of employees by principle country of operation is also shown. At all locations, the majority of CRH employees come from the local population, typically reflecting its ethnic diversity and strengthening the links with local communities.

The construction industry traditionally has employed a largely male workforce and this aspect of the sector is reflected in the Group's statistics. Currently 88% of operational staff and 85% of senior management are male, while 45% of clerical and administrative staff are female. The Group is committed to extending opportunities

to all individuals in line with its stated policies.

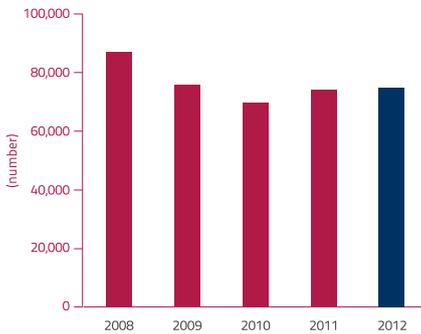
At every level and across all businesses, CRH encourages personal development and aims to create opportunities for employees at all levels, as it meets the leadership challenge of sustainable performance.

Key items include a focus on:

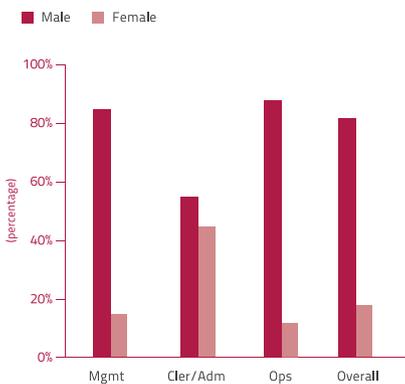
- All aspects of safety.
- Personal training and career development.
- Succession planning.
- Improving employee welfare in line with best practices.
- Improving workplace ergonomics and automation of certain operations.
- Implementing specific policies to assist management and employees with retirement planning and with downsizing when necessary. For major operational changes appropriate notice periods are implemented.

While the nature of the industry makes it difficult to employ people with physical disabilities, CRH takes its responsibilities in this area seriously. In 2012, 53 companies employed a total of 473 people with disabilities.

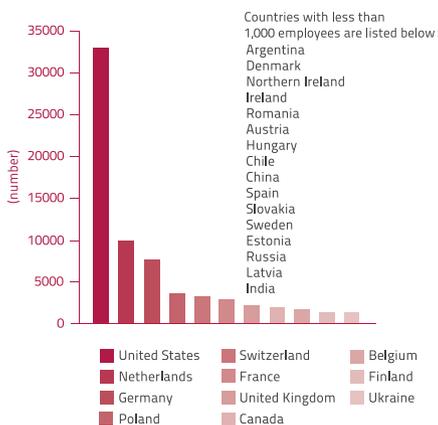
## Group Employees



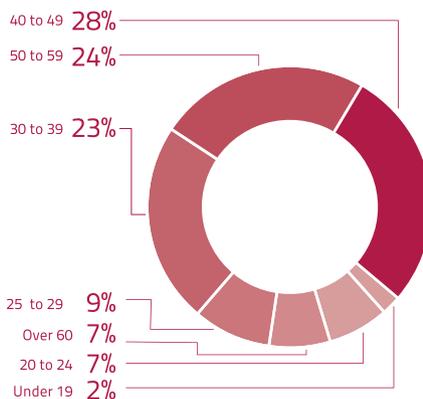
## Gender Balance by Category



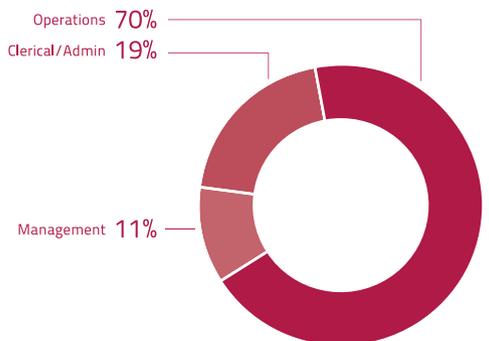
## Employees by Country



## Employees by Age (Years)



## Employees by Category



## Employee Development

CRH is regarded by many in the wider industry as a highly desirable employer. Many employees enjoy long-term careers with CRH, and this is a distinctive feature of the Group.

The Group offers competitive pay, social and pension benefits at least in line with industry and local or national practice, often with bonuses linked to company and individual performance targets. Performance related awards, based on measured targets, including targets related to CSR areas where relevant, are a key component of remuneration at all levels of the organisation, up to executive and Board level. In some cases, equity (share) based incentives are also provided in accordance with regulatory and industry practices in particular jurisdictions. Where local legislation defines a minimum wage, Group companies offer entry level wages at or above this. All companies in CRH have policies in place to ensure equal pay for equal work for women and men.

Overall, 87% of Group companies, covering 81% of all employees, carry out regular employee briefings. Formal employee satisfaction surveys cover only 14% of employees, however, most companies gauge employee satisfaction on an informal basis, as there are on average

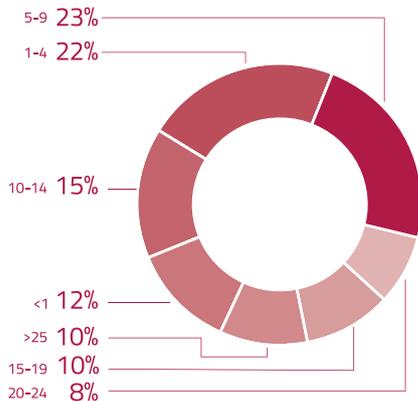
only 19 employees at each location. The flat organisational structure, together with small locally-managed operating units, ensures that close links are maintained between management and staff.

A component of the CRH culture is to foster employee entrepreneurship at a local level. In 2012, 60% of Group companies had employee suggestion schemes, which further enhance employee creativity and allow for appropriate recognition for innovative ideas.

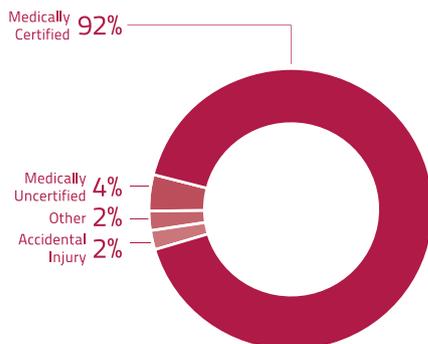
Employee absenteeism levels are low, which can be regarded as a good overall indicator of employee satisfaction. In 2012, the overall employee absenteeism level was reported at less than 2.5%, most of which was medically certified.

Excluding seasonal employees, the Group employee turnover rate is about 13%, which is typically higher in the first few years of employment and reflected in the length of service profile. Fair and flexible hiring and lay-off practices apply, particularly in seasonal businesses. In these seasonal situations, some employees return year after year, which is in itself a good indicator of employee satisfaction.

Length of Service (Years)



Absenteeism by Type



1. Participants of the 2012 CRH China Management Development Programme during a site visit to Shuangyang Cement Plant. The Programme's objectives were to develop appropriate management skills; create a networking environment across the China businesses and to give participants an opportunity to demonstrate their capabilities through various projects and presentations.



## Employee Development

**CRH invests in training and development of employees as a critical component of its sustainable performance and growth strategy.**

### Training

CRH continues to commit significant resources to training and developing employees throughout the organisation. In 2012, over 85% of Group companies offered career development opportunities or advice.

In 2012 an average of almost 20.7 hours of training took place per employee. This training focused mainly on safety but also included supervisory, environmental, technical, leadership and skills training.

As well as safety training, the major focus of the operating companies is on skills training with an emphasis on performance improvement in the business. At Divisional and Group level training focuses on the longer term and emphasises management development, core skills enhancement and the building of an international leadership pipeline for the future.

CRH also runs educational support programmes for employees across the Group to pursue further studies. In 2012, approximately 160,000 hours of training was undertaken in areas such as administration, language, technical skills, professional development and supervisory/management skills.

### Best Practice Sharing

The CRH Group is highly diversified geographically, culturally and by activity. Effective and rapid means of horizontally sharing knowledge across borders and cultures is achieved through best practice sharing which occurs through a variety of mechanisms across the Group.

Best practice groups in key product areas meet regularly at national, regional and international level. These best practice groups also focus on sustainability issues, particularly safety and environmental performance. The best practice activities are, therefore, in themselves a powerful conduit for continuous improvement in sustainability performance. In addition to the product-specific best practice groups, cross divisional and cross-product groups also meet on health and safety and environmental issues. Best practice groups on key operational areas such as energy management and procurement are now embedded in business activities and are contributing to operational excellence. Audit programmes assist in the sharing of best practice. The group internal intranet sites also greatly assist in the dissemination of information in a range of safety, environment, technical and other business areas.

1. The accounting personnel from the companies in the South Atlantic sub-division of Oldcastle Lawn & Garden, US, meet regularly to share best practice.



2. In March 2012, CRH Building site Accessories (BsA) held its 3<sup>rd</sup> Annual Finance Conference in Barcelona. The two-day event focused on training with a series of presentations from IESE Business School, CRH plc and CRH Europe Products & Distribution.



# Human and Labour Rights

## Human Rights

CRH is fully committed to human rights and supports, in so far as they are applicable to its companies, the principles as set out in the United Nations Declaration on Human Rights and the International Labour Organisation (ILO) Core Labour Principles. Compliance with the Social Policy is reviewed and monitored centrally.

The Code of Business Conduct specifically requires that Group companies, both in setting out policies and in practice, take due cognisance of the declared position on human rights when dealing with employees, contractors, customers and suppliers. CRH also considers human rights implications, where applicable, in investment decisions. For example, as mentioned on page 14, acquisition due diligence in developing countries covers human rights and other CSR issues.

CRH pays special attention to the purchase, directly or indirectly, of products in or from developing economies, and requires that its principal suppliers meet good practice and standards in respect of human rights.

In the review for the year 2012, all Group companies confirmed that there was no forced or compulsory labour employed at any location. In addition, all companies confirmed that no

employees or contractors worked at Group locations during 2012 if they were under the legal age in the relevant operating jurisdiction. Apprenticeship and internship programmes implemented are in accordance with local legislation and under regulation by government educational agencies.

## Trade Unions

Trade union membership varies by business and country. In 2012, overall trade union membership was 19%. Wage negotiation is carried out at a variety of levels, depending on local industry practice. Overall in 2012, 76% of the wage reviews were carried out on an individual basis or through unions/groups, with the remainder being carried out through national pay deals or on some other basis. Just under 6,000 days were lost in 2012 due to industrial disputes, equivalent to 0.03% of all man-days. The increase on 2011 (less than 900 days lost) is a result of two separate disputes that together accounted for almost 90% of all days lost, both of which have now been resolved.

All Companies operate in jurisdictions which provide employee retirement benefits. 72% of Companies offer additional retirement benefits to some or all of their employees.

1. The CRH Code of Business Conduct places strict requirements on Group Companies to comply with international best practice in relation to human and labour rights.



## Management Development

**Management development and succession planning ensures a continuous availability of leadership talent to meet the Group's strategic objectives.**

CRH commits significant resources to training and developing high potential employees throughout the organisation to meet the leadership challenges of performance and growth.

CRH management comprises a powerful blend of people from three distinct streams:

- Employees at operational, administrative, professional and management levels whose career opportunities grow as CRH grows.
- Highly skilled professionals who, on proving themselves, can move into senior management roles.
- Owner-entrepreneurs, who choose to stay on post-acquisition, bringing a strong "can do" attitude to the businesses they run and grow.

To supplement the management pool CRH also recruits specialist professionals focused on specific roles from the wider business arena. CRH's decentralised structure gives local, but disciplined, autonomy, which balances entrepreneurial drive with prudent operating practices consistent with Group guidelines. This continually fuels the Group's performance and growth imperatives.

All Divisions run management and leadership development programmes. These training programmes are systematically reviewed and revised to ensure they meet the changing business environment and continue to deliver highly motivated and successful managers across Group businesses. Specific management training programmes have been developed by Group Human Resources and these include the Strategic Management Programme, the Management Development Programme and the Business Leadership Programme, which has been developed in module format. These programmes include contributions from senior CRH management and external specialists. They also form part of the talent management tools used at Group level to ensure there is a continuous availability of leadership talent to meet the Group's strategic objectives.

Senior managers from around the Group are brought together on a regular basis to focus on key areas of the business including corporate and business strategy. The annual Group Management Seminar has been developed as a forum where senior management review the Group performance and develop plans and strategies to ensure the continuing successful performance of the organisation.

1. Participants at the January 2013 CRH Management Seminar, held in Florida, which reviewed 2012 performance and looked forward to 2013 and beyond.



## Customer Service

**CRH companies maintain excellent relationships with all customers.**

CRH strongly believes that sustained success in business is only achieved by continually exceeding customer expectations in the highly competitive markets in which it operates.

The Group's broad customer base reflects its product and geographical diversity. Sales across the Group totalled €18.7 billion in 2012. Individual businesses serve a wide range of customers including government agencies, contractors, distributors and private individuals, with no individual customer accounting for more than 1% of total Group sales.

Products are sold in highly competitive markets. CRH companies focus on excellence in customer care, product quality, value and service to distinguish them from competitors. Many products are independently certified to the highest quality.

In 2012, in addition to regular ongoing monitoring of customer relations on a personal and daily basis, 81% of Group companies carried out regular customer satisfaction surveys. In 2012, Group companies estimated that the satisfaction of 100% of customers was average or better.

The CRH Code of Business Conduct and related

policies specifically addresses customer relationship management and has been distributed to all marketing and sales managers throughout the Group. The dissemination of the Code of Business Conduct has been continuously supported by a series of seminars and training events which explain compliance requirements. Division and product group management are responsible for the implementation of the Code. Monitoring is carried out centrally.

### Product Responsibility

The products delivered by CRH companies, when properly used, present negligible health risks throughout their life cycles. CRH products are accompanied by Safety Data Sheets containing appropriate advice on use and application.

Group management, together with internal and external health and safety experts regularly liaise with the relevant industry associations and regulatory bodies to ensure that Group companies are aware of and comply with their obligations in this area. In particular, Group companies in the EU are complying with the requirements of REACH, the European Regulation on chemicals and their safe use, in so far as the Regulation applies to the Group and its products.

1. Customer Service training at Oldcastle Enclosure Solutions. The objective of the training was to provide a consistent approach to customer service. A survey was carried out at each location allowing an interactive approach to the training.



2. Product quality is a focus of all Group companies as the success of the business depends on providing quality products. Shown is quality testing at APAC Mid-South, Alabama, US.



## Supply Chain Management

CRH is committed to the highest levels of legal, ethical and moral standards, as set out in the Group's Code of Business Conduct and related policies and requires all those involved in supply chain management and procurement activities to uphold these principles in their dealings with suppliers. Suppliers to individual operating companies are key stakeholders in the performance of CRH businesses and are expected to be quality driven, innovative and efficient, thereby giving value for money. Suppliers are also expected to operate in accordance with the law and to adhere to good ethical practice.

Due to the nature of CRH businesses, most suppliers are local, where the performance and reputation of the supplier is well known. None of the Group's major suppliers provide more than 5% of total purchases and most are below 1%. The majority of external purchasing contracts are negotiated by individual operating companies. These are supplemented by centrally negotiated supplier agreements at national, regional or product group level for materials, fuels, plant and consumables.

Major external purchasing contracts are awarded following a rigorous competitive

tendering process. Decision criteria include price, quality, supplier reputation and CSR performance, including human rights.

CRH has set out an Ethical Procurement Code, which is published in the Code of Business Conduct (available on [www.crh.com](http://www.crh.com)) and sets out the standards expected of suppliers in respect of human rights, health and safety management, environmental stewardship and business ethics. Key suppliers are expected to have similar requirements in place for their upstream supply chains and to exercise diligence in verifying their suppliers' compliance. These requirements are in addition to other Code of Business Conduct provisions relating to legal compliance, use of confidential or inside information, conflicts of interest, provision or acceptance of gifts and prohibition of any form of bribe or similar inducement.

CRH supports procurement managers and suppliers in the understanding of CRH policies and requirements. Assurance procedures are in place to monitor compliance with the Ethical Procurement Code which includes as appropriate, supplier self-assessment, site visits, and/or comprehensive CRH or independent audits.

1. Once a supplier is approved, CRH builds strong relationships to help them along the path of continuous improvement, focusing not only on CSR and health and safety, but also helping them to improve their processes, systems and production techniques. Pictured are improvements at the pattern storage area of a supplier of wear parts in Zhejiang Province, China.



2. CRH has developed cross-divisional procurement teams that work with all aspects of supply chain management in an integrated way, including implementing the Ethical Procurement Code. Pictured during a visit to a supplier in China are Richie Griffin, CRH Europe Materials, Bin Zhang, CRH China, Marty Pinter, Oldcastle Materials Inc., Jack Zhang, CRH China, Adam Parr, Oldcastle Materials Inc. and Wenjie Zhao, CRH China.



## Community Engagement

**411** open days  
held by Group Companies.

CRH companies form an integral part of the many communities in which they operate and are committed to ensuring that the needs, views and interests of the local community are taken into consideration.

The Group is sensitive to the impact operations may have on neighbours, particularly those in the immediate vicinity of operating locations. This aspect of CRH's approach is delegated to local management teams and consequently is shaped according to the requirements of local stakeholders.

Open days are one of several means through which Group companies provide an opportunity for neighbours to talk with company managers and employees, to see the production processes at first hand and be assured of the company's intention to be a good neighbour.

Group companies held a total of 411 open days in 2012, demonstrating the ongoing commitment to the local community. Neighbours of all ages including school children, students, employees, community representatives, customers and local and regional public representatives and officials were invited to these events.

1. Horticultural students visited Jura's Dicki Location in Switzerland. During their visit Mr. Thomas Brönnimann, Jura, explained the restoration process and described how ecosystems develop in a gravel pit.
2. Children from a local school visited CRH's Head Office at Belgard Castle, Dublin, Ireland in September 2012. During the visit, they learned about the history of both the castle and the CRH Group.
3. Teams from the CRH Europe Products & Distribution HQ and Builders Merchants Benelux business unit cycled the famous Alpe d'Huez mountain to raise money for a cancer charity.
4. In October 2012, APAC Kansas City hosted the sixth annual open day at its Olathe quarry, Kansas, US. The local community was invited to the event, which was supported by the local fire department.



## Community Activities

**CRH companies are rooted in local communities and are committed to being good neighbours.**

CRH contributes positively in many ways to the economies and societies in which it operates. For example, in 2012, CRH purchased €10.7 billion worth of goods and paid €3.9 billion in wages, salaries, social welfare, pension and other wage related costs. CRH also paid total dividends of €450m (including €88m scrip) to shareholders, together with tax of €134m (Figures relate to subsidiaries and joint ventures on a percentage shareholding basis).

Many CRH businesses develop partnerships with locally based organisations to integrate their activities within the communities in which they operate. This enables companies to raise their profile, build their reputation and ultimately assists with matters such as recruitment, employee relations and relationships with the local authorities.

Each group company conducts activities in this area applying a decision making process which has been developed and operated by local management teams. Within this Report examples of these activities are shown to demonstrate the proactive approach taken.

Increasingly, Group companies are formalising their neighbour relations programmes. A key

feature of many local engagements is the holding of advance discussions with neighbours on development plans.

CRH sees education as an important societal issue and it is a focus of community support across operations. Group companies are linked in many ways, particularly through employees, to local schools and colleges, which are often identified as key stakeholders in the business. Group companies engage with schools and colleges through, for example, arranging visits to operations and visiting schools so that students can experience at first hand a variety of aspects of the building materials industry. These visits also provide a valuable learning experience for students and have been focused on diverse areas including biodiversity, science, engineering and business.

In addition, many Group companies work to promote business, engineering and science as future careers for students, often in conjunction with professional associations and local educational establishments. This is supported through appropriate local means including bursaries, scholarships and provision of work experience.

1. The National Association of Women in Construction's (NAWIC) MAGIC (Mentoring A Girl In Construction) camp visited Shelly Company's \$68 million State Route 2 project in Lake County, Ohio, US. These jobsite tours highlight to the participants the many career opportunities in the industry.



2. Cementbouw driver Maurice Broere visited a primary school, 'DePeddepoel' in Wanssum, to teach students about the dangers of truck 'blind spots'. Through a presentation, a film and experiencing first hand Maurice's truck blind spot, students learned the cardinal rule that: "If you can see the driver, the driver can see you too!".



## Case Study

## Community Support

CRH supports a wide variety of charitable initiatives, both at a central and local level. In 2012, 49% of Group companies supported significant local initiatives. These included support for local sporting, charity, health, nature conservation and educational events, support for other local causes such as job creation, and in addition, provision of materials for schools, homes, churches and local facilities. Such support can take the form of monetary donations, but also includes mechanisms such as donations of building materials, employee volunteering, hosting of events and provision

of advertising space at company locations and on company vehicles.

Supporting such causes brings positive benefits to the Group in many ways and is an integrated component of community engagement strategies at both local and central level across the Group. Maintaining the existing good reputation of the company ensures Group companies continue to meet stakeholder expectations and facilitates good stakeholder relationships, particularly with customers, community groups and employees.



In 2012 Oldcastle continued to grow its partnership with Habitat for Humanity by working together to build a home for a family in Atlanta, Georgia, US. This is the third home that Oldcastle has sponsored. Pictured (*top*) are some of the over 250 hard-working employees, along with their families and friends, who donated over 2,000 hours during the seven-week build in Atlanta. The home features Oldcastle products throughout, making this house truly an Oldcastle home.



In April 2012, Paterson Habitat for Humanity (New Jersey, US) honoured Oldcastle with the 2011 Corporate Partner of the Year Award at the organisation's Annual Dinner (*pictured, middle*). During this project, more than 150 employees from Oldcastle's local operating companies volunteered over 1,200 hours to build a family home. Oldcastle was unanimously chosen by Habitat for this prestigious award.



Oldcastle routinely donates building materials and volunteer time to different Habitat for Humanity chapters around the US. Pictured (*bottom*) are some of the employees from Allied Building Products who took part in the annual Corporate Challenge Programme run by Paterson Habitat for Humanity in New Jersey, US in June 2012.

# Community Support

**CRH supports a wide variety of community initiatives and charitable partnerships, both at a central and local level.**

In 2012, CRH contributed €3.5 million to civic and community causes, community development initiatives, education and research projects, job creation, local arts and cultural programmes, together with other projects. Approximately 70% of the annual donation budget is administrated at local level where the focus is on supporting community development and civic initiatives.

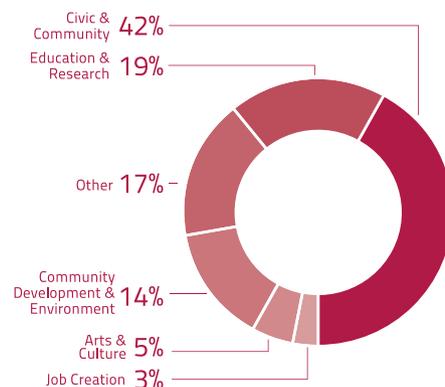
Group-led initiatives tend to focus on education and research, the environment and a range of other issues – many of which are international in nature. In many companies, individual employees also contribute generously of their own time in supporting good local causes and their contributions are often matched by their company.

1. Forticrete, UK and its employees continue to help chosen charities and good causes by sponsorships and charitable donations. Initiatives included a charity bike ride from Lands End to Jon O’Groats, raising money for local school projects, and sponsorship of local football and rugby teams.
2. Sakrete sponsors an annual playground build in Charlotte, North Carolina, US, working with other local companies and the Carolina Panthers American football team. As well as encouraging volunteers and financial donations through its “Sakrete Sack Programme”, building materials were also donated.
3. Oldcastle Southern, Florida, US, as part of its community engagement programme, actively supports a variety of charities and local causes, including the Adopt-a Road programme, American Heart Association and Feeding America Volunteer Day.



### CRH Donations

Total: €3.5 million



## Sustainability Awards

**During 2012, CRH Group companies were successful in a significant number of external award schemes focusing on various aspects of sustainability performance.**

### Health and Safety

A significant 368 health and safety external awards and recognitions were achieved by Group companies during 2012, reflecting the huge dedication to safety performance across the CRH Group.

In the US, Oldcastle won a total of 333 safety awards from various awarding bodies including: Mine Safety and Health Administration; Occupational Safety and Health Administration; National Asphalt Pavement Association; National Stone, Sand & Gravel Association; National Ready Mix Concrete Association; National Concrete Masonry Association; Expanded Shale, Clay and Slate Institute; National Precast Concrete Association and other bodies.

In Europe, Northstone was successful in the Northern Ireland Safety Group/National Irish Safety Organisation award. Ibstock won 23 accolades in the UK Ceramic Industry Health and Safety Pledge Awards and Forticrete received an award from the British Precast Concrete Federation. Ożarów received an award for its accident prevention programme from the Central Institute for Labour Protection in Poland. Jura Cement was recognised by the Swiss Cement Industry.

### Environment

In addition to the health and safety awards, a significant 266 environmental external awards were achieved by Group companies during 2012, demonstrating CRH's ongoing solid commitment to environmental management.

In the US, Oldcastle Materials won 2 awards from the National Stone, Sand and Gravel Association, 225 awards from the National Asphalt Pavement Association as well as 20 awards from the National Ready Mixed Concrete Association and other bodies.

In Europe, Irish Cement won an Irish Business and Employers Federation award for the use of alternative fuels, Northstone Materials, Northern Ireland was successful in the Carbon Saver Gold Standard while Northstone Farrans, Northern Ireland won 4 external environmental awards. Polbruk received a Polish Responsible Business Certificate and Rudus was awarded the 2012 Environment Company from the Finnish Association of Environmental Enterprises. Jura Materials, Switzerland, won awards for Nature and Environmental protection and CO<sub>2</sub> reduction. Anchor Bay, UK and Structural Netherlands both received awards for environmentally-friendly products.

1. The team at Rudus' Ready Mixed Concrete plant in Oulu came first in Finland's Concrete Industry Occupational Safety Competition, following a detailed assessment of accident statistics and safety management aspects.



2. In May 2012, the Shelly Company, Ohio, US, took first place for its environmental stewardship at the American Road & Transportation Builders Association (ARTBA-TDF) 2012 Globe Awards ceremony. The Shelly Company has made environmental stewardship a key part of its corporate culture.



## External Endorsements

CRH engages in a transparent manner on an ongoing basis with the major Socially Responsible Investment (SRI) Agencies on its sustainability and CSR performance. This

engagement takes the form of completing formal questionnaires issued by many of the Agencies as well as interviews, meetings and other contacts as relevant.

### Dow Jones Sustainability Indexes (Zurich):

In September 2012, CRH was again included in the Dow Jones World and STOXX indexes. The rating was carried out on behalf of DJSI by RobecoSAM, based on completion of a detailed questionnaire by CRH on governance, environmental and social performance.



### FTSE4Good (London):

CRH was again included in the FTSE4Good Index in its September 2012 and March 2013 Reviews.



FTSE4Good

### Ethibel:

In 2012, CRH continued as a constituent of the Ethibel Sustainability Index Excellence Europe and of the Ethibel Sustainability Index Excellence Global, based on a detailed assessment by Vigeo.



### Governance Metrics International (GMI) (New York):

GMI, which focuses on corporate governance, continues to highly rank CRH.



### ECPI (Italy):

In its December 2012 review, ECPI included CRH as a constituent of its ECPI® Indices, which are based on environmental, social and governance indicators.



### Ethisphere (US):

In February 2013, CRH was again recognised by the Ethisphere Institute as one of the World's Most Ethical Companies.



### Carbon Disclosure Project (CDP):

CRH participated in the 2012 CDP, which requests data on carbon emissions and carbon management on behalf of named institutional investors. CRH also participated in the 2012 Water Disclosure Project, run by CDP.



# WBCSD Cement Sustainability Initiative KPIs

## Key Performance Indicators for Cement Activities

KEY PERFORMANCE INDICATOR	2008	2009	2010	2011	2012
<b>Climate Change<sup>(1)</sup></b>					
Total CO <sub>2</sub> emissions (Gross), million tonnes	13.31	10.11	10.50	10.71	8.85
Total CO <sub>2</sub> emissions (Net), million tonnes	13.12	9.83	10.14	10.21	8.23
CO <sub>2</sub> emissions (kg) per tonne of cementitious product (Gross)	749	717	716	707	685
CO <sub>2</sub> emissions (kg) per tonne of cementitious product (Net)	738	697	692	674	637

<b>Alternative Fuels &amp; Materials<sup>(1)</sup></b>					
Energy efficiency (kcal/kg clinker)	955	926	931	930	835
% Fuel substitution for virgin fuels	6.2%	10.8%	12.6%	17.3%	20.8%
% Biomass in kiln fuel	1.4%	2.0%	1.7%	3.2%	6.9%
% alternative materials (clinker and cement)	8.9%	12.2%	11.4%	14.0%	15.7%
clinker : cement ratio	81.8%	79.5%	78.9%	79.7%	79.2%

<b>Health/Safety<sup>(2)</sup></b>					
No. of fatalities (directly employed)	0	0	1	0	0
Fatality rate per 10,000 (directly employed)	0	0	3.97	0	0
No. of fatalities (contractors/subcontractors)	0	1	0	2	0
No. of fatalities (involving 3rd parties)	0	0	0	0	0
No. of lost time injuries (directly employed)	18	10	9	12	7
No. of lost days (directly employed)	646	677	285	224	200
Lost Time Incident (LTI) rate per 1m man hours (directly employed)	2.63	1.88	1.84	2.54	1.49
Severity rate per 1m man hours (directly employed)	94	127	58	47	42
No. of lost time injuries (contractors/subcontractors)	12	5	7	6	6

<b>Emissions<sup>(1)</sup></b>					
Particulates, specific g/tonne of clinker	405	376	380	328	108
Particulates, total (tonnes per year)	5,924	4,222	4,433	3,931	1,096
NO <sub>x</sub> , specific g/tonne of clinker	1,646	1,580	1,532	1,505	1,360
NO <sub>x</sub> , total tonnes per year	24,051	17,730	17,883	18,043	13,823
SO <sub>x</sub> , specific g/tonne of clinker	200	224	209	204	304
SO <sub>x</sub> , total tonnes per year	2,917	2,510	2,436	2,441	3,090

<b>Emissions Monitoring<sup>(2)</sup></b>					
% Clinker Produced with monitoring of major and minor emissions	74.7%	75.1%	77.5%	76.7%	76.9%
% Clinker Produced using continuous monitoring of major emissions	74.7%	75.1%	77.5%	82.7%	95.4%

<b>Local Impacts<sup>(2), (3)</sup></b>					
No. of active quarries within, containing or adjacent to areas designated for their high biodiversity value	-	1	1	1	5
% of sites with high biodiversity value where biodiversity management plans are actively implemented	-	100.0%	100.0%	100.0%	100.0%
% of sites with community engagement plans in place	80.0%	72.2%	100.0%	100.0%	100.0%
% of active sites with quarry rehabilitation plans	86.7%	77.8%	92.9%	92.9%	93.3%

Note 1: Subsidiary and joint ventures and associates on an equity share basis (excluding Kunda, Uniland and Yatai)

Note 2: Subsidiary Companies

Note 3: The original single KPI on biodiversity (Local Impacts) was updated by CSI in early 2009 and expanded

For definitions of these KPIs, refer to the CSI Interim Report, June 2005 on [www.wbcscement.org](http://www.wbcscement.org)

# Glossary

ABBREVIATION	EXPLANATION
Aggregates	Crushed stone, sand and gravel
Asphalt	A mixture of bitumen and aggregates: used for road and highway surfaces
Building Products	In relation to the activity breakdowns in this report Building Products includes fencing and security systems, roller shutters and awnings and construction accessories
C&D	Construction and Demolition
CEMBUREAU	European Cement Association
Cement	The primary binding agent used in building, made by grinding clinker and other materials to a fine powder, which can be mixed with water, sand and aggregates to set as concrete
Clay	A naturally occurring plastic material composed primarily of fine-grained minerals which can be mixed with other ingredients, shaped and fired to create clay bricks, roof tiles, pavers etc.
Clinker	A black nodular material which is the output of a cement kiln following decarbonation of limestone and reaction with other materials
Concrete	A building material consisting of sand, gravel or aggregates in a mortar or cement matrix, cast or moulded into blocks, pipes, tiles and other products
CO <sub>2</sub>	Carbon dioxide, generated by fuel combustion and decarbonation and/or oxidation of carbon in raw materials
CSI	Cement Sustainability Initiative
CSR	Corporate Social Responsibility
Decarbonation	The dissociation of calcium carbonate to calcium oxide with the evolution of carbon dioxide, occurs in the production of clinker and lime
Distribution	In relation to the activity breakdowns in this report Distribution includes DIY stores, specialist building materials suppliers and builders' merchants
DJSI	Dow Jones Sustainability Index
ELO	Environmental Liaison Officer (designated person in each company with functional responsibility for environmental compliance)
EuLA	European Lime Association
GHG	Greenhouse Gas
ISO	The International Standards Organisation
ISO14001	The International Standards Organisation model for management and external certification of environmental performance
k	One thousand units
KPI	Key Performance Indicator
Lime	Calcium oxide, created by decarbonation of limestone, and calcium hydroxide
m	One million units
Materials	In relation to the activity breakdowns in this report Materials includes aggregates, asphalt, readymixed concrete
MSHA	Mine Safety and Health Administration (US)
NAPA	National Asphalt Pavement Association (US)
NGOs	Non-Governmental Organisations
NO <sub>x</sub>	Nitrogen oxides
OSHA	Occupational Safety and Health Administration (US)
Other Process	In relation to the activity breakdowns in this report Other Process includes lime and lightweight aggregates production
PCA	Portland Cement Association (US)
RAP	Recycled Asphalt Pavement
Readymixed Concrete	A mix of aggregates, sand and cement that can be poured into forms and sets as a solid mass
RMI	Repair, Maintenance and Improvement
RobecoSAM	Sustainability Asset Management (Zürich-based Rating Agency for DJSI)
SHAP	A Distribution business platform - Sanitary Heating and Plumbing
SO <sub>x</sub>	Sulphur oxides
SRI	Socially Responsible Investment
Specific	A term defining emissions on a per tonne of product basis
T	Tera (10 <sup>12</sup> units)
TWh	Terawatt hour
Tonnes	Metric tonnes
WBCSD	World Business Council for Sustainable Development
WMA	Warm Mix Asphalt



# DNV Assurance Statement

## CRH Sustainability Report 2012

### Introduction

DNV Business Assurance UK (DNV) was commissioned by the management of CRH plc (CRH) to carry out independent third party Assurance of CRH's 2012 Sustainability Report (the Report). The engagement focused on the information provided in the Report and the underlying management and reporting processes. As part of this engagement, DNV also provided assurance of CRH's reported World Business Council for Sustainable Development – Cement Sustainability Initiative (WBCSD-CSI) Key Performance Indicators (KPIs). The specific scope of this assurance, our approach and specific conclusions on reliability are reported separately in the CSI Assurance Statement, but they form part of this assurance statement and should not be read, referred to, or relied upon in isolation.

This Assurance Statement is intended for the readers of the CRH Sustainability Report. CRH is responsible for the collection, analysis, aggregation and presentation of all information and assertions made within the Report. DNV's responsibility regarding this assurance engagement is to the management of CRH only, in accordance with terms of reference and scope of work agreed. DNV disclaims any liability or responsibility to a third-party for any decisions, whether investment or otherwise, based upon this Assurance Statement.

### Scope of Assurance

This assurance engagement covered data for the 2012 calendar year. The scope of DNV's engagement included the assurance of:

- Sustainability policies, goals, initiatives, practices and performance, as described in the Report. These were reviewed at Group level as well as in site visits to 7 production facilities, and in video conferences with 2 production facilities of CRH operating companies and joint ventures.
- Data management systems for Health & Safety, Environment, and People and the Community, and associated processes and tools for collecting, analysing, aggregating and reporting quantitative and qualitative information provided in the Report.
- Processes for defining the boundaries, focus and content of the Report.
- The extent to which the principles and requirements of the Global Reporting Initiative (GRI) Guidelines for Sustainability Reporting (2006) (GRI G3) are reflected in the Report and the corresponding application level declared by CRH.
- The extent to which the principles of Materiality, Inclusivity and Responsiveness are adopted, in line with the requirements of the AA1000AS (2008) Standard for a Type 2 high level assurance engagement. The reliability of the information within the Report for calendar year 2012 was assured. Specific focus areas for the assurance included:

- Health & Safety: safety management, frequency rate, severity rate, fatalities;
- Environment: energy use, CO<sub>2</sub> emissions, alternative materials and fuels, recycling, water consumption, and waste management;
- Corporate Governance: communication of the code of conduct and hotline to employees and management at sites visited during the assurance engagement, and mechanisms for communication on these matters to the Board of Directors;
- People and Community: number of employees, gender balance and absenteeism rates.

CRH's reporting boundaries include all operating companies over which CRH management exercises significant control. Where data and information from joint ventures and associated companies are included, this is noted within the Report. All elements of this assurance engagement were carried out in accordance with the requirements of AA1000AS (2008) for Type 2, high level of assurance, aside from the CSI KPIs for which a moderate level of assurance was provided. The Assurance of CRH's CSI KPIs for CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates and Health & Safety is detailed in the separate CSI assurance statement.

### Limitations

The engagement excluded the sustainability management, performance and reporting practices of CRH's suppliers, contractors and any third-parties mentioned in the Report. DNV also interviewed certain external stakeholders selected by CRH and agreed by DNV as part of this assurance engagement to obtain an overview of CRH's approach to external stakeholder engagement.

### Statement of Competence and Independence

DNV provides sustainability management services through specialists worldwide. This engagement was undertaken by a team of suitably qualified and experienced sustainability professionals. DNV was not involved in the preparation of any information presented in the Report, with the exception of the CSI Assurance Statement and this Assurance Statement. DNV did not provide any services to CRH or its stakeholders during 2012 that could compromise the independence or impartiality of our work.

### Assurance Methodology

This assurance engagement was carried out between January and June 2013, in accordance with AA1000AS (2008). In reaching our conclusions, we have undertaken the following work:

- Interviewed 8 CRH executives and management representatives from different Divisions and functions of the Group, in addition to more than 30 representatives interviewed during site visits;
- Visited CRH's Head Office at Belgard Castle and CRH Europe Materials' Head Office in Ireland. DNV has

conducted site visits to: Roadstone Wood (Ireland), Oldcastle Building Envelope (Georgia, USA), Warren County Quarry (Georgia, USA), Supreme Concrete (UK), Jura Cement (Switzerland), General Merchants (Switzerland), and Podilsky Cement (Ukraine). Video conferences were held with My Home Industries (Mellacheruvu, India) and Engineered Accessories (Germany). These sites were selected to achieve a balanced range of products, geographies, and length of time within the Group;

- Interviewed four external stakeholders: Business in the Community, Ireland, Local Authority and Community representatives in Warren County, USA and Habitat for Humanity, Atlanta, USA;
- Examined relevant documents, data and other information requested by DNV and made available by CRH;
- Reviewed a selection of internal communication and external media reports relating to CRH's Sustainability management approach, performance and adherence to its policies;
- Reviewed the mechanisms implemented by CRH to promote and oversee its sustainability-related policies across the Group, as described in the Report;
- Analysed sustainability data management systems at Group, Divisional, company and site level, assessing specified data and information reported by CRH. The process focussed on explicit assertions regarding sustainability performance on material issues and included a review of their completeness and accuracy. We undertook a review of the methods, practices and tools used in the collection, aggregation, analysis, internal quality control and reporting of the data and information. The process also included: high-level trend analysis; the identification and analysis of significant changes in performance since 2011; a review of data traceability; and record checks at different stages in the data flows, from source to Group level.

### Findings

In DNV's opinion, and based on the scope of this assurance engagement, the Report provides a reliable and fair representation of CRH's Sustainability-related policies, goals, initiatives, practices and performance in 2012. Based on the work undertaken as part of this assurance engagement, DNV believes that the Report meets the principles, content and quality requirements of GRI G3 and AA1000AS (2008) for a type 2 high level of assurance (excluding the CSI KPIs, for which a moderate level of assurance was provided). We confirm the GRI application level of A+ declared by CRH. Further conclusions and observations on the adoption of reporting principles and specified performance information are made below.

### Observations

Further automation of the data collection process

# DNV Assurance Statement

## CRH Sustainability Report 2012

was observed, with increasing use of the online data system. Evidence was seen of a high level of internal scrutiny of site-level data by the sustainability team at CRH Headquarters, which provides an additional level of confidence in the robustness and transparency of final data assured by DNV.

From our onsite observations, CRH continues to place a strong emphasis upon the health and safety of its employees, and third parties operating upon its sites. We recognise and have observed CRH's continual improvements in accident rates. Investment in training and health and safety improvement initiatives remains high, with evidence of extensive collaboration across the CRH Group. The health and safety management systems and processes provide confidence in datasets and disclosures.

It was observed that awareness of environmental compliance remains high across all sites visited, reflecting the CRH Environmental Policy. We observed commitment beyond best practice at sites with potentially higher environmental impacts. We recommend that the development of Group/Business unit level environmental targets in material areas would help to increase the focus on environmental improvement. We acknowledge that there will be challenges in implementation based on the federal nature of the organisation.

Evidence of measures to reduce carbon emissions and to minimise local air quality impacts, through the use of alternative fuels, transport optimisation, and through process upgrades and abatement technologies was seen across sites.

**Inclusivity and Responsiveness:** The Report reflects CRH's commitment to provide information and data that enables stakeholders to evaluate the organization's economic, social and environmental performance. Stakeholder engagement is undertaken from Group level through to individual sites. The methods of engagement differ across sites, relating to the nature and scale of the activities. As CRH is a federal company, each subsidiary manages external stakeholder engagement practices individually, and these are tailored to the local context. As part of the 2012 Assurance process, four external stakeholder interviews were carried out by DNV: Business in the Community Ireland, Local Authority and Community representatives in Warren County, USA and Habitat for Humanity, Atlanta. Feedback from these stakeholders was very positive and indicated that CRH's engagement programmes and initiatives were tailored to the communities it operates in. The stakeholders interviewed confirmed that CRH has assessed and responded to local stakeholder needs.

CRH engages with a range of external stakeholders, including SRI rating agencies, investors and shareholders, governments and regulators, and participates in industry associations such as the WBCSD-CSI and CEMBUREAU, to address Sustainability issues material to its sector and its business.

At Group level, employees are regularly involved in setting strategies, plans and actions through best practice meetings established around a product or regional grouping to review environmental or health and safety matters. In addition, CRH holds regular feedback meetings on environmental, health and safety and social matters across different regions and business lines.

**Materiality:** While CRH does not have a formal, structured materiality determination process, at Group level at present, we understand that a materiality assessment is currently underway, which highlights CRH's commitment to continual improvement. The organisation also maintains a range of internal processes which are effective in identifying sustainability issues of relevance and importance to the business and stakeholders, including a number of knowledge sharing and best practice workshops with local environmental and health and safety officers as well as regional executives. Through these processes, CRH is able to continue to identify and address material sustainability issues and is able to stay informed of trends and changes in sustainability issues over time.

**Reliability:** The data measurement techniques and basis for calculations have been duly described to DNV and can be replicated with similar results. We have not found any material inaccuracies or gaps that would significantly affect the way performance is perceived by stakeholders. A number of errors in environmental and health and safety data were identified at one of the sites visited. Although no systematic errors were detected, there was not a high level of confidence in the aggregation of data reviewed at the site. This however does not materially affect CRH's reported sustainability data. It is recommended that more extensive internal auditing is carried out to ensure robustness of sustainability data at this site. It is understood that CRH already has plans to address this issue in 2013.

CRH has introduced additional guidance for water recycling to improve the estimation process for this data. Although CRH has a robust methodology for calculating CO<sub>2</sub> emissions associated with transport, a proportion of transport mileage data is currently estimated. We acknowledge the challenges related to automation of this data across the business.

We commend the continuous improvement efforts made by CRH to ensure robust sustainability data management at Group level. The use of an online SharePoint database which provides additional guidance to sites continues to reduce the need for data manipulation at Group level, resulting in a higher level of data reliability.

The Report presents information in a clear manner which facilitates the comparison of environmental and health and safety performance over a five year period. For cement, which accounts for a significant share of the Group's environmental impact, CRH reports specific (per tonne of product) CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub> and particulate emissions values in line with the CSI KPIs.

**Completeness:** The Report includes all entities that meet the criteria of being subject to control or significant influence of the reporting organisation, and does not omit relevant information that would influence stakeholders' decisions or that reflect significant Environmental, Health & Safety or People & Community related issues.

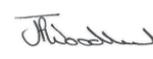
**Neutrality:** In general the Report provides a fair and balanced representation of CRH's Sustainability approach and performance in 2012, as well as explanations for changes in performance trends. In DNV's opinion, further information could be provided with regard to social dimensions and related challenges facing the Group.

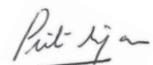
### Opportunities for Improvement

Without affecting our assurance opinion we also provide the following recommendations:

- Evidence of formalised community engagement plans was seen at all cement plants visited. We recommend that CRH considers a more strategic approach to stakeholder and community engagement across the organisation, with increased focus on those initiatives which are directly related to its core operations and address sites' most material impacts.
- CRH has Group wide ethical procurement policies and procedures in place and should continue to develop these during 2013. We recommend also that CRH further integrates aspects of sustainability into its procurement processes throughout the Group.
- We recommend that CRH considers the development of quantitative Group/Business unit level environmental targets in material areas, with progress reported annually in the Sustainability Report.
- We commend CRH for undertaking the formalised sustainability materiality assessment that is currently underway. We recommend that CRH consider including the results of this assessment within following reports to ensure that the report contents continue to reflect the highest materiality issues for the business and its stakeholders.

For DNV Business Assurance UK Limited

  
Jon Woodhead  
Director

  
Priti Nigam  
Lead Verifier

  
Jonathan Sykes  
Sustainability Verifier

  
David Keddie  
Sustainability Verifier

London, June 2013



# DNV Assurance Statement

on the Key Performance Indicators reported to  
The Cement Sustainability Initiative 2012

## Introduction

CRH plc (CRH) commissioned DNV Business Assurance UK (DNV) to carry out independent third party assurance on the Key Performance Indicators (KPIs) reported for 2012 to the World Business Council for Sustainable Development – Cement Sustainability Initiative (WBCSD-CSI), as well as underlying management and reporting processes. The indicators are included in CRH's 2012 Sustainability Report (the Report), and DNV's CSI data assurance was part of the broader assurance engagement described in DNV's main Assurance Statement within this Report. This Assurance Statement on WBCSD-CSI KPIs should not be referred to in isolation from the main Assurance Statement.

The Assurance Statement is intended for the readers of the Report. CRH is responsible for the collection, analysis, aggregation and presentation of all information and assertions made within the Report related to the specified WBCSD-CSI KPIs. DNV's responsibility is to CRH Management only. DNV disclaims any liability or responsibility to a third-party for any decisions, whether investment or otherwise, based upon this Assurance Statement.

## Scope of Assurance and Limitations

The scope of DNV's CSI assurance engagement included verification of:

- The reported greenhouse gas emissions (specific and total direct CO<sub>2</sub> emissions, gross and net) as well as NO<sub>x</sub>, SO<sub>x</sub> and particulates, specific and total emissions, generated within cement production facilities wholly or partially owned by CRH;
- The reported Health & Safety (H&S) KPIs (fatalities, lost time injuries, lost days, LTI and severity rates) for wholly owned cement production facilities;
- The reported emissions monitoring coverage rates;

- Group procedures, processes and guidance for measurement and reporting of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, Particulates and H&S KPIs, and compliance with these at the sites visited;
- Processes for data collection, aggregation, analysis and reporting at site, company and Group level;
- Alignment of site, company and Group level procedures, processes and guidance with the WBCSD-CSI performance measurement and reporting guidelines for CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, Particulates and H&S, and other relevant standards identified below.

Data assured was for the calendar year 2012. The assurance engagement did not include a detailed assessment of the adequacy, effectiveness or efficiency of CRH's strategy or management approach. It also excluded management, performance and reporting practices by CRH's suppliers and other third parties mentioned in the Report. For CO<sub>2</sub> data management and reporting purposes, CRH made use of the latest reporting tool recommended by the WBCSD-CSI (version 3.04). The validation of the WBCSD-CSI reporting tool was not part of the scope of this engagement.

## Assurance Methodology

This assurance engagement was carried out between January and June 2013, by a multi-disciplinary team of suitably qualified and experienced sustainability professionals. It was planned and carried out in line with AA1000AS (2008), utilising the Quality of Information principles within the Global Reporting Initiative (GRI).

In addition, our risk-based assurance approach for CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub> and Particulates performance information draws from the criteria set out in ISO14064 (part 3), the verification protocol developed by the International Emissions Trading Association, the WBCSD-CSI Protocol "CO<sub>2</sub> and Energy

Accounting and Reporting Standard for the Cement Industry" (May 2011), and the WBCSD-CSI Protocol "Guidelines for Emissions Monitoring and Reporting in the Cement Industry" (March 2012). Our risk-based assurance for H&S performance information draws from the criteria set out in the WBCSD-CSI Protocol "Safety in the Cement Industry: Guidelines for Measuring and Reporting" (May 2013). All elements of the assurance engagement related to the above-described CSI performance data were carried out in accordance with the requirements of AA1000AS (2008) for type 2, moderate level of assurance.

As a part of the CSI assurance process, the following tasks were undertaken by DNV:

- Reviewed Group procedures, policies and guidance for data collection, aggregation, measurement, analysis and reporting of specified performance information at site, company and Group levels, and assessed their alignment with WBCSD-CSI Protocols referenced above, and other relevant standards;
- Conducted 1-day site visits to 2 cement production facilities: Jura Cement (Wildeggen, Switzerland) and Podilsky Cement (Ukraine); and undertook documentary due diligence of the performance data for My Home Industries (Mellacheruvu, India) combined with a video conference. Together these 3 production facilities represent approximately 31% of CRH's total CO<sub>2</sub> emissions for cement facilities on an 100% share basis in 2012 and 34% of CRH's total CO<sub>2</sub> emissions for cement facilities on an equity share basis in 2012, as reported on page 69 of the Report. The primary purpose of the visits and meetings was to assess adequacy and effectiveness of the processes being implemented by these reporting units to collect, aggregate, analyse and report CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates and

# DNV Assurance Statement

on the Key Performance Indicators reported to  
The Cement Sustainability Initiative 2012

H&S data. This was carried out mainly through interviews with data owners, on-site review of the data repositories and performance records, and desktop study of performance data sent from site to Group. The interviews also enabled DNV to assess compliance with Group procedures, processes and guidance;

- Verified the boundary setting and accounting processes for CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates, and H&S data;
- Performed tests, on a sample basis, of selected CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates, and H&S data, in order to assess the reliability of data and information managed at site, company and Group levels;
- Reviewed the relevant sections of the Report and assessed the reliability of information presented on CRH Group's CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates, and H&S performance;
- Reviewed internal communications and external reports relating to CRH's CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates, and H&S performance.

## Findings

In DNV's opinion, based on the work carried out, we are able to confirm a moderate level of assurance for CRH's CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates, and H&S performance in 2012. The CSI performance data and KPIs reported on page 69 of the Report have been collected and reported based on requirements of the WBCSD-CSI protocols referenced above, and any exceptions have been noted by CRH.

DNV believes that the CSI-related performance information and KPIs reported generally meet the principles, content and quality requirements of the AA1000AS (2008) for a type 2 moderate level of assurance. Further conclusions and observations on the specified performance information verified are made below. For conclusions and observations related to the adoption

of reporting principles and the AA1000 (2008) Assurance Principles of Materiality, Inclusivity and Responsiveness, see DNV's main Assurance Statement.

**Reliability:** The CSI data measurement techniques and basis for calculation of CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, Particulates and H&S CSI KPIs have been duly described to DNV and can be replicated with similar results. No systematic errors were detected for data and information verified in accordance with the above-described scope of assurance. Furthermore, we have not found any material inaccuracies or gaps that would significantly affect the way performance is perceived by stakeholders.

DNV has tested the reporting systems currently in place for CO<sub>2</sub>, SO<sub>x</sub>, NO<sub>x</sub>, and Particulates, and found that these systems demonstrated a robust and well-managed process for collection, management and reporting of performance data. Boundary setting (at Group and site levels) meets the mandatory requirements of the relevant performance measurement and reporting standards and guidelines. Relevant exceptions have been noted by CRH in the Report.

Comprehensive corporate procedures, guidelines and processes for Health & Safety data collection, management, internal quality assurance and reporting exist at Group level. A review of site processes for the collection and management of H&S performance indicated the processes to be robust. These processes are aligned with the principles and fulfil the requirements of the relevant measurement and reporting guidelines referenced above. Relevant exceptions have been noted by CRH in the Report.

## Observations

Based on our conclusions, the following observations are made to encourage continual improvement, though they do not affect the conclusions above:

- CRH may wish to provide additional guidance to sites on the reporting of data for wet or dry tonnage of materials (e.g. gypsum, limestone, coal). Although no inaccuracies in data were found during the site visits, this is an area where potential errors in data could arise.
- In general a strong commitment to biodiversity enhancement was seen across the sites visited. Although at the sites we visited after use/restoration plans are in place, at specific sites there is also the opportunity to go beyond legislative requirements in contributing to biodiversity enhancement. We recommend CRH should explore these opportunities at relevant sites.
- From our onsite observations, CRH continues to place a strong emphasis upon the health and safety of its employees, and third parties operating upon its sites. The health and safety management systems and processes are observed to provide confidence in datasets and disclosures. We encourage CRH to continue its strong focus on health and safety.

For DNV Business Assurance UK,



Priti Nigam  
Lead Sustainability  
& GHG Verifier



Jonathan Sykes  
Sustainability  
Verifier



Jon Woodhead  
Director

London, June 2013

# Relationship to GRI G3 Guidelines

CRH Sustainability Report 2012

INDICATOR	DESCRIPTION	PAGE NUMBER	DISCLOSURE
<b>Strategy and Analysis</b>			
1.1	CEO Statement on relevance of sustainability to the organisation & strategy	1-2	Full Disclosure
1.2	Description of key impacts, risks, and opportunities	9-10, 51-52	Full Disclosure
<b>Organisational Profile</b>			
2.1	Name of the organisation	5	Full Disclosure
2.2	Primary brands, products, and/or services	5, 8	Full Disclosure
2.3	Operational structure of the organisation	5, 11-12, Annual Report 2012 p. 128-135	Full Disclosure
2.4	Location of organisation's headquarters	5, back cover	Full Disclosure
2.5	Countries where the organisation operates	5, 12	Full Disclosure
2.6	Nature of ownership and legal form	5, 11	Full Disclosure
2.7	Markets served	5, 7-8, 11-12	Full Disclosure
2.8	Scale of the reporting organisation	5, 12, 13, Annual Report 2012 p. 18, 52, 72	Full Disclosure
2.9	Significant changes during the reporting period in size, structure, ownership	13-14	Full Disclosure
2.10	Awards received in the reporting period	67-68	Full Disclosure
<b>Report Parameters</b>			
3.1	Reporting period (e.g. fiscal/calendar year) for information provided	front cover, 80	Full Disclosure
3.2	Date of most recent previous report (if any)	80	Full Disclosure
3.3	Reporting cycle (annual, biennial, etc.)	inside cover, 80	Full Disclosure
3.4	Contact point for questions regarding the report or its contents	back cover	Full Disclosure
3.5	Process for defining report content	6, 9-10, 80	Full Disclosure
3.6	Boundary of the report	inside cover, 80	Full Disclosure
3.7	Any specific limitations on the scope or boundary of the report	inside cover, 80	Full Disclosure
3.8	Basis for reporting on joint ventures, subsidiaries, etc.	inside cover, 80	Full Disclosure
3.9	Data measurement techniques and the bases of calculations	80	Full Disclosure
3.10	Explanation of effect of re-statements of information provided previously	Note: no restatements	Full Disclosure
3.11	Significant changes in scope, boundary, or measurement methods	Note: no significant changes	Full Disclosure
3.12	Table identifying the location of the Standard Disclosures in the report	75-78	Full Disclosure
3.13	Policy and current practice on seeking external assurance for the report	2, 80	Full Disclosure
<b>Governance, Commitments, and Engagement</b>			
4.1	Governance structure of the organisation	47-80	Full Disclosure
4.2	Indicate if Chair of the board is also an executive officer	47	Full Disclosure
4.3	The board members that are independent and/or non-executive members	47, Annual Report 2012 p. 40-41	Full Disclosure
4.4	Ways for shareholders and employees to provide recommendations or direction	15-16, 47-48, 56-58	Full Disclosure
4.5	Link between compensation of board and management with performance	57, Annual Report 2012 p. 54-67	Full Disclosure
4.6	Processes in place for the board to ensure conflicts of interest are avoided	46-52, Annual Report 2012 p. 38-53	Full Disclosure
4.7	Process for determining the qualifications and expertise of the board	47-48, Annual Report 2012 p. 38-53	Full Disclosure
4.8	Internally developed statements of mission or values, codes of conduct, & principles	1-2, 9-10	Full Disclosure
4.9	Procedures of the board for overseeing identification and management of performance	9-10, 47-48	Full Disclosure
4.10	Processes for evaluating the boards own CSR performance	47-48, Annual Report 2012 p. 38-53	Full Disclosure
4.11	Explanation of whether and how the precautionary approach or principle is addressed	47-52, Annual Report 2012 p. 38-53	Full Disclosure
4.12	Externally developed economic, environmental, and social charters, principles	1-2, 6, 9-10, 32	Full Disclosure
4.13	Memberships in associations	1-2, 32, 68, 69	Full Disclosure
4.14	List of stakeholder groups engaged by the organisation	inside cover, 63-68	Full Disclosure
4.15	Basis for identification and selection of stakeholders with whom to engage	2, 15	Full Disclosure
4.16	Approaches to stakeholder engagements	15-16, 63-64	Full Disclosure
4.17	Key topics and concerns that have been raised through stakeholder engagement	6, 9-10	Full Disclosure

# Relationship to GRI G3 Guidelines

CRH Sustainability Report 2012

INDICATOR	DESCRIPTION	PAGE NUMBER	DISCLOSURE
<b>Economic</b>			
	Disclosure on Management Approach	1-14, 32-37, 54-68	Full Disclosure
EC1	Direct economic value generated and distributed	13, 66, Annual Report 2012 p. 83-87, 128-135	Full Disclosure
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	7, 8, 32, 52	Full Disclosure
EC3	Coverage of the organisation's defined benefit plan obligations	59, Annual Report 2012 p. 109-112	Full Disclosure
EC4	Significant financial assistance received from government	Note: no significant assistance	Full Disclosure
EC5	Additional: Range of ratios of standard entry level wage compared to local minimum wage	57	Partial Disclosure*
EC6	Policy, practices, and proportion of spending on locally-based suppliers	62	Partial Disclosure*
EC7	Local hiring and proportion of senior management hired from the local community	55-57	Partial Disclosure*
EC8	Development and impact of infrastructure provided primarily for public benefit	7-8, 64, 66	Full Disclosure
EC9	Additional: Understanding and describing significant indirect economic impacts	63-67	Full Disclosure

<b>Environmental</b>			
	Disclosure on Management Approach	1-2, 6, 9-10, 28-44, 61, 69	Full Disclosure
EN1	Materials used by weight or volume	1, 35, 37, 40 Note: Production quantities relate closely to material use.	Partial Disclosure*
EN2	Percentage of materials used that are recycled input materials	35, 40, 69	Full Disclosure
EN3	Direct energy consumption by primary energy source	33, 37	Full Disclosure
EN4	Indirect energy consumption by primary source	33, 34, 37 Note: primary source breakdown not available	Partial Disclosure*
EN5	Additional: Energy saved due to conservation and efficiency improvements	35, 37, 69	Partial Disclosure*
EN6	Additional: Energy-efficient or renewable energy products and services	7-8, 32-37, 69	Full Disclosure
EN7	Additional: Indirect energy consumption reduction initiatives and results	32-37	Full Disclosure
EN8	Total water withdrawal by source	42	Full Disclosure
EN9	Additional: Water sources significantly affected by withdrawal of water	Note: none significantly affected	Full Disclosure
EN10	Additional: Percentage and total volume of water recycled and reused	42	Full Disclosure
EN11	Location and size of land by protected areas and areas of high biodiversity value	43-44	Partial Disclosure*
EN12	Description of significant impacts of activities, products and services on biodiversity	43-44	Full Disclosure
EN13	Additional: Habitats protected or restored	43-44	Full Disclosure
EN14	Additional: Managing impacts on biodiversity	43-44	Full Disclosure
EN15	Additional: IUCN Red List species and other list species with habitats affected by operations	43-44	Partial Disclosure*
EN16	Total direct and indirect greenhouse gas emissions by weight	34, 69	Full Disclosure
EN17	Other relevant indirect greenhouse gas emissions by weight	32-37, 69	Full Disclosure
EN18	Additional: Initiatives to reduce greenhouse gas emissions and reductions achieved	32-37, 69	Full Disclosure
EN19	Emissions of ozone-depleting substances by weight	Note: not applicable to the building materials industry	
EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight	38, 39, 69, 80	Full Disclosure
EN21	Total water discharge by quality and destination	42	Partial Disclosure*
EN22	Total weight of waste by type and disposal method	41	Full Disclosure
EN23	Total number and volume of significant spills	30	Full Disclosure
EN24	Additional: Weight of waste deemed hazardous	41	Full Disclosure
EN25	Additional: Details of water and habitats significantly affected by discharges of water and runoff	42 Note: no significant impacts from water discharges	Full Disclosure
EN26	Initiatives and extent of environmental impacts of products and services mitigation	7-8, 32-37, 61	Full Disclosure
EN27	Percentage of products sold and their packaging materials reclaimed by category	41	Partial Disclosure*
EN28	Significant fines and non-monetary sanctions for non-compliance with environmental law	30 Note: no significant non-monetary sanctions were identified	Full Disclosure
EN29	Additional: Significant environmental impacts of transporting products etc. and workforce	32, 34, 37	Full Disclosure
EN30	Additional: Total environmental protection expenditures and investments by type	31	Full Disclosure

# Relationship to GRI G3 Guidelines

CRH Sustainability Report 2012

INDICATOR	DESCRIPTION	PAGE NUMBER	DISCLOSURE
<b>Social : Labour Practices and Decent Work</b>			
	Disclosure on Management Approach	1-2, 6, 9-10, 18-26, 54-68	Full Disclosure
LA1	Total workforce by employment type, employment contract, and region	56, 57 Note: breakdown by employment and contract type not available	Partial Disclosure*
LA2	Total number and rate of employee turnover by age group, gender, and region	57 Note: breakdown of turnover not available'	Partial Disclosure*
LA3	Additional: Benefits for full-time employees not provided to temporary or part-time	59	Partial Disclosure*
LA4	Percentage of employees covered by collective bargaining agreements	56, 59	Full Disclosure
LA5	Minimum notice period(s) regarding significant operational changes	56, 58-59	Partial Disclosure*
LA6	Additional: % workforce in formal management-worker health and safety committees	26	Full Disclosure
LA7	Rates of injury, occupational diseases, lost days and absenteeism, & number of work-related fatalities by region	18-26, 57	Full Disclosure
LA8	Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	24, 26 Note: CRH does not have a significant presence in countries with endemic diseases such as HIV/AIDS	
LA9	Additional: Health and safety topics covered in formal agreements with trade unions	18-26	Full Disclosure
LA10	Average hours of training per year per employee by employee category	24, 57-58, 60 Note: Average training per employee by category - Management 25.1 hrs, Clerical/Admin 14.0 hrs & Operations 21.8 hrs	Full Disclosure
LA11	Additional: Programmes for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	57-58, 60	Full Disclosure
LA12	Additional: % employees with regular performance & career development reviews	57-58, 60	Partial Disclosure*
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	46-48, 55-56, Annual Report 2012 p. 36-43	Full Disclosure
LA14	Ratio of basic salary of men to women by employee category	57, Note: same job same pay, breakdown not available	Partial Disclosure*

<b>Social : Human Rights</b>			
	Disclosure on Management Approach	1-2, 6, 9-10, 55, 59	Full Disclosure
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	14, 59, 62	Partial Disclosure*
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	49-50, 62	Partial Disclosure*
HR3	Additional: Hours and % of employee training on policies and procedures in human rights	49-50, 62	Partial Disclosure*
HR4	Total number of incidents of discrimination and actions taken	49-50	Partial Disclosure*
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	55, 59, 62	Full Disclosure**
HR6	Operations with significant risk for incidents of child labour, and measures taken to eliminate	55, 59, 62	Full Disclosure***
HR7	Operations with significant risk of forced or compulsory labour, and measures to eliminate	55, 59, 62	Full Disclosure***
HR8	Additional: Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations	Note: 78% Companies provided relevant human rights training during 2012	Partial Disclosure*
HR9	Additional: Incidents of violations involving rights of indigenous people & actions taken	Note: not applicable as CRH does not have a significant presence in countries of concern	

#### Notes:

\* CRH is a federal Group and consequently company-level data for some GRI indicators is not collated centrally although overall performance is monitored. For these indicators CRH has therefore reported a Partial Disclosure. CRH reviews annually the scope of its CSR data collection and where appropriate and practicable in the future will report a Full Disclosure on relevant indicators.

\*\* CRH fully supports the right to exercise freedom of association and collective bargaining and has not identified any operations where this is at risk.

\*\*\* Some CRH operations are in developing regions where risk of child labour and compulsory labour could exist. Management systems are in place to ensure the risk is eliminated and key suppliers in such regions are being audited.

# Relationship to GRI G3 Guidelines

CRH Sustainability Report 2012

INDICATOR	DESCRIPTION	PAGE NUMBER	DISCLOSURE
<b>Social: Society</b>			
	Disclosure on Management Approach	1-2, 6, 9-10, 32, 46-52, 54-68	Full Disclosure
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	14, 63-64	Full Disclosure
S02	Percentage and total number of business units analysed for risks related to corruption	49-50, Annual Report 2012 p. 51-52	Partial Disclosure*
S03	Percentage of employees trained in organisation's anti-corruption policies and procedures	49-50	Partial Disclosure*
S04	Actions taken in response to incidents of corruption	Note: no significant incidents	Full Disclosure
S05	Public policy positions and participation in public policy development and lobbying	32	Full Disclosure
S06	Additional: Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	Note: no significant donations	Full Disclosure
S07	Additional: Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes	Annual Report 2012 p. 50-53 Note: no significant issues	Full Disclosure
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Annual Report 2012 p. 50-53 Note: no significant issues	Full Disclosure

<b>Social : Product Responsibility</b>			
	Disclosure on Management Approach	1-2, 6, 9-10, 18-19, 32, 43-44, 54-55, 61-62	Full Disclosure
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	43, 61	Full Disclosure
PR2	Additional: Incidents of non-compliance with regulations and voluntary codes on health and safety impacts of products and services during their life cycle, by type of outcomes	61 Note: none known	Full Disclosure
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	61-62 Note: for relevant products	Full Disclosure
PR4	Additional: Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	61 Note: none known	Full Disclosure
PR5	Additional: Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	61	Full Disclosure
PR6	Programmes for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	Note: not applicable for building materials due to the nature of these products	
PR7	Additional: Total number of incidents of non-compliance with regulations and voluntary codes on marketing communications, including advertising, promotion, and sponsorship by type of outcomes	Note: not applicable for building materials due to the nature of these products	
PR8	Additional: Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	Note: none known	Full Disclosure
PR9	Additional: Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	Note: no significant fines	Full Disclosure

## GRI Application level requirements

(Ref: Adoption of the Global Reporting Initiative (GRI) - page 80)

Report Application Level		C	C+	B	B+	A	A+
Standard Disclosures	G3 Profile Disclosures	Report on: 1.1 2.1 - 2.10 3.1 - 3.8, 3.10 - 3.12 4.1 - 4.4, 4.14 - 4.15	Report on all criteria listed for Level C plus:	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5 - 4.13, 4.16 - 4.17	Same as requirement for Level B	Same as requirement for Level B
	G3 Management Approach Disclosures	Not Required	Report Externally Assured	Management Approach Disclosures for each Indicator Category	Report Externally Assured	Management Approach Disclosures for each Indicator Category	Report Externally Assured
	G3 Performance Indicators & Sector Supplement Performance Indicators	Report on a minimum of 10 Performance Indicators, including at least one from each of: Economic, Social and Environmental.	Report Externally Assured	Report on a minimum of 20 Performance Indicators, at least one from each of Economic, Environmental, Human rights, Labor, Society, Product Responsibility.	Report Externally Assured	Report on each core G3 and Sector Supplement* Indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission.	Report Externally Assured

\*Sector supplement in final version

# GRI Statement



## Statement GRI Application Level Check

GRI hereby states that **CRH plc** has presented its report "CRH Sustainability Report 2012 - Responsible Performance and Growth" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines. For methodology, see [www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf](http://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf)

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 20 June 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a large, faint watermark of the GRI globe logo.

Nelmara Arbex  
Deputy Chief Executive  
Global Reporting Initiative



The "+" has been added to this Application Level because CRH plc has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

*The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)*

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 14 May 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

# CRH Sustainability Reporting

## History, Scope and Structural Aspects

### Reporting History

CRH produced its first Corporate Social Responsibility (CSR) Report in October 2004. The content and level of transparency was expanded in the Reports that followed as CRH embraced a continuous improvement concept. For the ninth Report, published in 2011, CRH embraced a "Sustainability" approach and hence has adopted a new format, which has been retained for this, the tenth report in the area. In addition, the new format aims to build on the disclosures in terms of content and transparency, based on stakeholder feedback received.

### Independent Verification

CRH was among the first companies in its sector to achieve full independent verification of its CSR Reporting in 2005, repeated every year since. This Report, published in June 2013 and covering activities in 2012, has also been independently verified by Det Norske Veritas (DNV) and the detailed verification statement is included in this Report on pages 71-72.

### Scope of CSR Reporting

CSR data from 100% of Group subsidiaries forms the basis of this Report. The scope of the Report addresses the full range of economic, environmental and social impacts of the organisation. Details of CRH's principal subsidiaries are recorded on pages 128-133 of the CRH Annual Report 2012. In common with other large companies, CRH also owns shareholdings in several joint ventures and associates, with a listing of the principal investments provided on pages 134-135 of the CRH Annual Report 2012. Most of these companies supply CSR data to the Group and actively participate in CSR Programmes. Their key data is included on an appropriate % shareholding basis at appropriate points in this Report. While it is CRH's aspiration that all joint ventures and associates should adopt its CSR policies in full (or their own equivalent policies), this is clearly not always practicable where CRH does not have full management control. In comparison with

the previous year, there were no significant changes in scope, boundary or measurement methods.

### Structure of the Report

This Report opens with an introduction by the CEO, followed by a section outlining some information on sustainability in CRH, outlining some background information about CRH and describing CRH's approach to stakeholder communication. The next sections detail CRH's main CSR focus areas grouped under four headings; health & safety, environment & climate change, governance and people & community. Each section records CRH's policy in the relevant area, gives details of how it is implemented, and describes material issues. The various SRI ratings that have been awarded for the Group's performance in Sustainability are profiled in the people & community section. The appendices cross-reference the content of the Report to the requirements of the GRI guidelines and include a glossary of terms. The DNV verification statement on this Report is also included in the appendices, together with WBCSD- CSI KPI data and the associated DNV verification statement.

### Intended Audiences

The key audiences for this report are CRH stakeholders - employees, customers and suppliers, as well as current and potential investors, sustainability rating agencies, government and regulatory bodies, non-governmental organisations (NGOs), neighbours and local communities. CRH hopes that this Report fulfils the expectations of all stakeholders and welcomes their feedback.

### Adoption of The Global Reporting Initiative (GRI)

As with previous Reports, CRH has voluntarily adopted the "G3" Sustainability Reporting Guidelines developed by the GRI, including the guidance on defining Report content and materiality. As many stakeholders will be aware, GRI is an independent institution

whose mission is to provide a trusted and credible framework for Sustainability Reporting. Data is provided under all indicators but in some cases only partial disclosure can currently be met. CRH declares that its 2012 Reporting qualifies for the GRI scope "A+" application level requirements, in accordance with the criteria table on page 78, and this has also been verified by DNV and independently checked by the GRI. The GRI statement is included on page 79 of this Report.

### Data Accuracy

Every effort has been made to provide consistent physical data in this Report, a significant challenge when collating the 2012 data from a diverse range of activities from over 3,500 locations in 35 countries. It is CRH's experience that the data accuracy and quality improves each year, enabling more confident trending of results and setting of future objectives.

For the most part, data is based on measured or metered physical quantities, or best estimates based on industry knowledge and established calculation factors and representative samples, if actual data is not available. CO<sub>2</sub> emissions are calculated according to the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development (WBCSD) GHG (Green House Gas) Protocol for cement plants, while those from other activities are estimated from established fuel and activity air emission factors. No universally-accepted methodology yet exists for calculating CO<sub>2</sub>/tonne for other activities, for example lime, clay brick or asphalt production. For cement activities, CRH reports according to the agreed CSI KPIs. Specific emissions are reported for cement activities in accordance with the WBCSD CSI conventions. Metric units are used throughout.





CRH welcomes feedback and comments from stakeholders on its Sustainability reporting.

Pat McCleery, Group Sustainability Manager

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