

# Sustainability report

2010



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## 2009 highlights

- New £50 million brick factory at Measham begins production, setting new standards in brick making
- Responsible Sourcing of Materials (RSM) BES 6001 standard gained for our ready-mixed concrete and aggregates operations, covering nearly 300 production sites
- ISO 14001 certification achieved for our marine aggregates division
- Reported environmental incidents fall by 16 per cent
- Reportable and lost time injuries fall by 36 per cent
- Increased use of recycled materials in our asphalt and ready-mixed concrete products
- Overall CO<sub>2</sub> emissions down by 32 per cent compared to 2008
- Hanson Cement wins 'London Freight Operator of the Year' at the 2009 GreenFleet Awards
- 49 per cent of fuel used in Hanson Cement manufacture is recovered from waste
- Hanson Structherm achieves 'Regeneration Scheme of the Year' in the Housing Excellence Awards

Front cover image: The comma butterfly is a common and colourful visitor to restored quarry workings at Ripon in North Yorkshire (photo: Brian Morland)

Hanson is supplying over half a million tonnes of aggregate, concrete and asphalt to the £87.4 million Weymouth relief road in Dorset, one of the biggest road projects in the country.



# Products for a sustainable future

“Hanson is the UK’s largest supplier of heavy building materials to the construction industry.”

Hanson is the UK’s largest supplier of heavy building materials to the construction industry. We produce aggregates (crushed rock, sand and gravel), ready-mixed and precast concrete, asphalt and cement-related materials and a range of building products.

We are part of the HeidelbergCement Group, which has leading global positions in aggregates, cement, concrete and heavy building products. Hanson’s UK business is split into three business lines – quarry products, building products and cement – which together operate over 300 manufacturing sites and employ some 5,600 people.

**Hanson Quarry Products** produces sand and gravel from the land and sea, crushed rock and asphalt for road surfacing and is one of the UK’s largest suppliers of ready-mixed concrete from a network of 200 fixed and site-based plants. The division includes Hanson Contracting, a national road surfacing and infrastructure business, which is also involved in the project management and construction of wind farms and waste-to-energy facilities.

**Hanson Cement** is a leading producer of Portland cement, both in bulk and in bags, and makes ground granulated blast furnace slag (GGBS) – a cement replacement in ready-mixed and precast concrete – and a range of bagged aggregates. It also includes the specialist waste management and processing company Solvent Resource Management (SRM), which makes alternative fuels for the cement kilns.

**Hanson Building Products** is one of the UK’s largest producers of clay bricks and also makes lightweight and dense concrete blocks and concrete pavers. The division also makes precast concrete flooring, prefabricated modular building systems, sustainable urban drainage systems (SUDS) and geothermal systems.

**Note:** The data presented in this report focuses on our three main production business lines. We operate three other businesses involved primarily in contracting (Hanson Contracting, Hanson Structherm and Irvine-Whitlock) whose performance is included in the environmental incidents and health and safety statistics, but not in other numeric performance indicators, unless specified. This is due to the difference in type of activity carried out. We are reviewing how data from these activities can be included in future years.



Inside the new £50 million soft mud brick factory at Measham in Leicestershire



Ketton cement works in Rutland



Whatley limestone quarry in Somerset

# Good progress in tough market conditions

by Patrick O'Shea, Chief Executive Officer, Hanson UK



Patrick O'Shea, CEO, Hanson UK

This is our second sustainability report as Hanson UK following the integration of all our businesses into a single organisation in 2008. It provides stakeholders with an overview of our achievements and successes during 2009, and an update on how we are performing against our targets.

2009 was another very difficult year for the construction industry. Demand for our core products continued to decline by an average of around 20 per cent, leaving production volumes some 40 per cent below those recorded in 2007. As a result, employee numbers have also fallen. In June 2007 we had 8,751 staff. By January 2009 the figure had dropped to 6,742, and by the end of the year it stood at 5,581 – a 36 per cent reduction.

This severe and unprecedented downturn in the market has inevitably had an impact on our sustainability performance. Lower production volumes means plant and equipment cannot always be operated at maximum efficiency. Optimising the use of our delivery fleet is also much harder. Against that background, we remain committed to our targets of reducing the use of

electricity, fuel and water per tonne of product. We are also determined to eliminate workplace accidents and I am pleased to report that our lost time injury frequency rate fell for a second successive year.

Staff training and employee engagement are critical to achieving our sustainability goals and we continue to invest in these areas. The benefits of working responsibly and sustainably are immediate as well as long term. Many of our customers are looking for us to demonstrate publicly our commitment to working sustainably.

We made good progress in 2009, despite the toughest market conditions in a generation. But we are not complacent and I remain firmly committed to the principle of continual improvement.

“The benefits of working sustainably are immediate as well as long term.”



Group training sessions and internal workshops ensure sustainability issues are communicated effectively to employees



Shawfield concrete plant at Rutherglen is supplying concrete to the new Sir Chris Hoy Velodrome being built in Glasgow for the 2014 Commonwealth Games

# Building for a sustainable future

by Martin Crow, Head of Sustainability, Hanson UK

“We became the first major construction materials company in the UK to work with the Carbon Trust on a change management programme for employees.”



Martin Crow, Head of Sustainability, Hanson UK

Our second sustainability report is again built around the UK concrete industry's Sustainable Construction Strategy, which is aligned with the government's four sustainable development priorities:

- **sustainable consumption and production**
- **climate change and energy**
- **natural resource protection and enhancing the environment**
- **creating sustainable communities**

From these priorities, we have developed and adopted 14 key performance indicators (KPIs) for future reporting, which are featured from page 10 onwards. The KPIs were developed through the Concrete Industry Sustainable Construction Forum. Three of our main product lines – aggregates, cement and ground granulated blast furnace slag (GGBS) – are the principal constituents of concrete so it made good sense for us to adopt this approach.

It also complements the over-riding sustainability strategy of our parent company, HeidelbergCement. We do, of course, produce materials beyond concrete, such as asphalt, clay bricks and block paving, but we believe the principles we now embrace enable us to cover all our product areas.

A key achievement during 2009 was gaining the Responsible Sourcing of Materials (RSM) BES 6001 standard for two complete product lines – ready-mixed concrete and aggregates – covering nearly 300 production sites. This has since been extended to cover our range of building products including Thermalite and aggregate blocks, Formpave, clay bricks and precast concrete.

We became the first major construction materials company in the UK to work with the Carbon Trust on a change management programme for employees. The programme is designed to instil a new culture aimed at empowering all staff to identify and help introduce changes that improve the sustainability of our activities, particularly those reducing energy use and carbon emissions. We see this as an important step towards achieving our vision of sustainability becoming integral to the way we do things, all the time.



Employees at Freehay quarry near Stoke-on-Trent were the first winners of the 'Site Proud' competition in the aggregates category

Another element was the introduction of an internal competition called 'Site Proud' which aims to improve housekeeping standards and in doing so, enhance health, safety and environmental performance.

Collection of accurate data from around 330 sites remains one of our biggest challenges. To support the process, we have created a new post within the sustainability team to focus solely on this important task and establish robust baseline data for all our KPIs.



Hanson's floating concrete plant at Wood Wharf in the heart of London's Docklands is keeping thousands of lorries off the capital's roads

Looking ahead, we will continue to work towards achieving and surpassing our sustainability targets and to set new and demanding challenges for the business. We will also continue to focus on biodiversity as part of a group-wide initiative within HeidelbergCement.



Clay bricks are the latest Hanson product to be awarded BES 6001 Responsible Sourcing of Materials certification

# Sustainable consumption and production

“We remain on course to have all our sites certified to ISO 14001 by the end of 2010.”

## 1. Environmental management

**Our environmental management systems remain core to achieving continuous improvement in our performance by setting clear objectives in line with our sustainability policy.**

We remain on course to meet our target of having all sites certified to ISO 14001 by the end of 2010, subject to the fluctuations of new sites that require time to implement and audit the systems. The outstanding sites are depots, which import materials for bagging. Certification of these sites is progressing well.

We have also achieved certification for our non-static operations. Our contracting division has certification for its operations across the UK and we have recently gained certification for our marine aggregate dredging business.

Looking ahead, we have begun a project to integrate all our management systems – environment, health and safety and quality – into one system that will cover all our core business. This project is scheduled for completion in 2011. A separate project to create an integrated management system (IMS) for the contracting division is under way. The overall objective is to align the division closely with the Highways Agency

– its number one customer – and satisfy Tier One supplier requirements as well as improving knowledge sharing and risk management.

Thermalite and aggregate blocks, Formpave, clay bricks and precast concrete are the latest of our product lines to be certified with the Responsible Sourcing of Materials (RSM) BES 6001 standard. This follows certification for ready-mixed concrete and aggregates in September 2009.



Our marine dredging business has achieved ISO 14001 certification

The RSM standard covers the environmental and social issues for organisational management and supply chain management, including all the processes from the origin of raw materials, through all stages of the manufacturing process to point of sale.

Achieving this certificate for our building products operations was the next step in our goal to obtaining the standard across all our sites and product lines.



Thermalite blocks have been awarded with BES 6001 Responsible Sourcing of Materials certification

### Production sites certified to ISO 14001

Business line	Product line	2008			2009		
		Total sites	Number with certified MS	Coverage	Total sites	Number with certified MS	Coverage
Cement	Cement and GGBS	19	19	100%	15	15	100%
Building products	All	32	32	100%	26	25	96% <sup>3</sup>
Quarry products	Aggregate quarries	80	80	100%	65	65	100%
	Aggregate others <sup>1</sup>	28	28	100%	27	27	100%
	Concrete	225	225	100%	210	210	100%
Hanson UK		384 <sup>2</sup>	384 <sup>2</sup>	100%	343	342	100%

#### Notes

<sup>1</sup> 2008 aggregate data only included quarries; additional line covers wharves, depots and asphalt plants

<sup>2</sup> 2008 total revised in light of above

<sup>3</sup> Building products reduced following introduction of new site at Whittlesey (certified in 2010)

#### Target

100 per cent coverage of all sites by end of 2010

### Non-production sites certified to ISO 14001

Business line	Product line	2008			2009		
		Total sites	Number with certified MS	Coverage	Total sites	Number with certified MS	Coverage
Hanson UK	All	24	5	21%	22	8	36%

# Sustainable consumption and production

“A target to reduce by-pass dust sent to landfill from our cement plants by 30 per cent in three years has been surpassed in one year.”

## 2. Waste minimisation

Last year we set ourselves a target of establishing baseline data on waste per tonne of product for both the aggregates and concrete business lines and setting targets for reduction. This has been achieved. Data collection for aggregates had begun in 2008 but did not cover all sites accurately – the improved data collection has resulted in an increased figure in 2009. There was no data collected for concrete sites prior to 2009.

By using our BSI Entropy software to capture information we are able to record waste generated across the business. Entropy is designed to assist in the management of our systems and almost all our production sites can now access the system to enter information.

We are in the process of setting up a single contract with a national waste disposal company to manage waste collection at all our sites. This will enable us to control the process more effectively and provide further improvements to the reporting systems on the quantity and types of waste being produced.

Although we recognise that our data on waste generation is still limited, with only one year's figures for much of the business, we are setting a target of 10 per cent reduction in waste to landfill by the end of 2012, across all business lines. This is in line with our commitment made last year.

Last year we also set a target of reducing by-pass dust from the cement operations being sent to landfill by 30 per cent by 2012. This has been surpassed in one year and the target has been revised to 50 per cent by 2012.



A national contract for waste collection allows improved control and reporting of both recycling and waste disposal



Data collection for aggregates sites has improved

Waste disposal					
Business line	Product line	2008		2009	
		Tonnes	Kg waste / tonne product	Tonnes	Kg waste / tonne product
Cement	Cement and GGBS	19,278	4.5	7,611	2.44
	SRM and packed products	No Data	No Data	2,006	1.36
Building products	All	2,571	0.6	2,154	1.17
Quarry products	Aggregates	2,955	0.1	8,246	0.38
	Concrete	No Data	No Data	4,722	0.63
Hanson UK		No Data	No Data	24,739	0.76

Cement specific waste		
	2008	2009
By-pass dust produced	4,569t	7,808t
By-pass dust landfilled	4,419t	4,584t
By-pass dust diverted from landfill	3.28%	41.29%

### Targets

Divert from landfill 50 per cent of by-pass dust generated by cement production by 2012

Reduce waste to landfill by 10 per cent by the end of 2012 based on 2009 data

# Sustainable consumption and production

“Internally reported environmental incidents fell by 16 per cent.”

## 3. Environmental incidents and emissions

As part of our environmental management systems we record complaints (arising from external sources) and incidents (occurrences noted by our own staff which may or may not have led to a complaint). Reports are generated monthly and systems are in place for recording and tracking any required actions.

In 2009, internally reported incidents fell by 16 per cent, despite the fact that we extended the figures to include the building products division. There was a significant fall in incidents in the cement division, but complaints rose. This is because one single incident can lead to numerous complaints.

An escape of dust at Padeswood cement works and a problem with the raw meal elevator at Ketton cement works generated almost 300 complaints between them. As a result, the total number of complaints across the business lines increased by over 30 per cent. We continue to encourage our managers to report all complaints through the environmental management system. We have recently started to use our BSI Entropy software for incident reporting, providing automatic notification of incidents to key managers.

There were no environmental prosecutions during 2009 but in 2010, Castle Cement (now Hanson Cement) was fined £250,000 for not complying with environmental permits at Padeswood works in north Wales. The prosecution was brought by the Environment Agency for offences which largely occurred between 2005 and 2007. They included failure to maintain plant in good operating condition, which was deemed to have contributed to two fires, minimise dust emissions and control excessive noise and vibration. The company also failed to comply with an agreed improvement programme and enforcement notices.

Lessons have been learned from the case; further training of staff has been carried out to raise the awareness that any potential noncompliance with environmental permits must be identified and rectified immediately.

Please note that in last year's report the 2008 complaints figures for cement and concrete were transposed.

### Emissions from cement production

Emissions from cement production have reduced significantly over the last decade. These reductions have been achieved in the main through major investment in new plant and equipment.

The SO<sub>2</sub> emissions from cement kilns are related to the presence of volatile sulphur compounds found in the raw materials. In 2009 there was a small increase in emissions as a result of changes in the composition of the quarried stone. In addition, lower production levels at the lowest SO<sub>2</sub> emitting plant also contributed to an overall increase in emissions per tonne.

All three of our cement plants operate at SO<sub>2</sub> emission levels significantly below the EU best available technique reference document levels of 200-400mg/Nm<sup>3</sup>. The range for 2009 in our plants was 40-102mg/Nm<sup>3</sup>.

Cement specific emissions			
Business line	Emissions	2008	2009
Cement	Dust to air	0.15kg/t	0.09kg/t
	NOx to air	1.18kg/t	1.08kg/t
	SOx to air	0.10kg/t	0.15kg/t
	Suspended solids to water	0.01kg/t	0.003kg/t

Incidents, complaints and prosecutions							
Business line	Product line	2008			2009		
		Incidents	Complaints	Prosecutions	Incidents	Complaints	Prosecutions
Cement	Cement and GGBS	78	268	0	44	363	0
	SRM and packed products	No data	No Data	No Data	3	5	0
Building products	All	No data	No Data	No Data	15	24	0
Quarry products	Aggregates	52	111	0	32	104	0
	Concrete	29	22	0	37	20	0
Hanson UK		159	401	0	131	516	0

**Target**  
100 per cent compliance with all environmental legislation

A new £63 million kiln at Padeswood cement works, commissioned in 2007, has resulted in environmental improvements





# Sustainable consumption and production

“Before submitting planning applications for all new developments we consult widely with both statutory bodies and local residents.”

## 4. Stakeholder engagement

**We remain committed to engaging with our investors, customers, business partners and other stakeholders in promoting sustainable development.**

The launch of our first combined sustainability report in 2009 was a major development in our engagement with stakeholders. Although a formal review was not undertaken, we have received positive feedback from customers and trade associations for the clarity and coverage of the report. This year we are seeking on-line feedback on the report at [www.yourfeedback.com](http://www.yourfeedback.com).

In 2009 our parent company HeidelbergCement Group carried out a substantial capital increase through the issue of new shares. As a result, and following the simultaneous placement of shares belonging to the Group's majority shareholder, free float increased to over 75 per cent. This created a much higher number of financial stakeholders in the business, and a greater commitment to communicate with our investors.

Five of our sites are within national parks and we are active members of the Corporate Forum for National Parks which encourages dialogue between the Campaign for National Parks, the park authorities and the businesses which operate within the parks.

Before submitting planning applications for all new developments we consult widely with both statutory bodies and local residents. In May 2009 The Co-operative Group and Hanson held a joint public exhibition at The Cotswold Water Park Gateway Centre, South Cerney, Gloucestershire to present proposals for sand and gravel extraction on part of the Co-operative Group's Down Ampney Estate. The exhibition provided an opportunity for local residents to view and comment on the proposals prior to a planning application being submitted for the 253 hectare site, which contains five million tonnes of sand and gravel.

The Co-operative Group and Hanson had already carried out pre-application consultation with a number of bodies including English Heritage, RSPB and the Environment Agency. The planning application included a full environmental impact assessment report covering issues ranging from dust, noise and visual impact through to hydrology, ecology and landscape. A detailed archaeological investigation had also been carried out.



North west Leicestershire MP Andrew Bridgen (right) with building products operations director Paul Brader, during a visit to the new £50 million brick factory at Measham



Local residents attend a planning exhibition for a time extension to a silica sand quarry at Buckland near Reigate in Surrey

# Sustainable consumption and production

“We were the first company in the UK to produce and lay low energy asphalt.”

## 5. Quality and performance

All our business lines operate comprehensive quality management systems to ensure our products are made to the highest standards.

We remain on target to extend ISO 9001 systems to all production sites by the end of 2010. This has already been achieved in the quarry products and cement business lines. The outstanding sites in building products are aggregate block plants, which have systems in place but have not yet been formally certified. The other sites awaiting certification are mainly packed products (bagging) plants.

In addition to certification, the ongoing development of new products is an important part of this performance indicator. Over the last 18 months we have developed two bespoke, quality assured concrete mix designs for the central barrier and drainage channel for the A1 upgrade project in Yorkshire. The 12-month contract forms part of the Highways Agency's scheme to widen a 13-mile stretch of the A1 from Dishforth to Leeming into three lanes by 2012. A total of 30,000 cubic metres of Hanson Easybarrier® and Hanson Easychannel® is being supplied at a rate of 200 cubic metres a day from our plant at Ripon.

Both mixes include a high percentage of ground granulated blast furnace slag, which helps to enhance the concrete's sustainability credentials.

In 2010 we became the first company in the UK to produce and lay low energy asphalt (LEA), which can reduce the level of carbon emissions associated with asphalt production by up to 50 per cent.

The LEA process allows the material to be produced at temperatures of 95°C, giving a reduction in fuel consumption of up to 50 per cent compared with equivalent hot-mix materials. It involves a process of micro-foaming the bitumen in the asphalt plant mixer and has been used across Europe and in the US for over five years.

As well as the increased sustainability credentials, the temperature profile of LEA asphalt allows faster completion of resurfacing works, minimising disruption for motorists.



Low energy asphalt was trialled at Hanson's West Drayton asphalt plant in Middlesex before being used on the local road network

### Production sites certified to ISO 9001

Business line	Product line	2008			2009		
		Total sites	Number with certified MS	Coverage	Total sites	Number with certified MS	Coverage
Cement	Cement and GGBS	19	19	100%	15	15	100%
Building products	All	32	32	100%	26	18	69%
Quarry products	Aggregate quarries	80	80	100%	65	65	100%
	Aggregates other <sup>1</sup>	28	28	100%	27	27	100%
	Concrete	225	225	100%	210	210	100%
Hanson UK		384	384	100%	343	335	98%

Note

<sup>1</sup> 2008 aggregates data only included quarries; additional line covers wharves, depots and asphalt plants

**Target**

Extend ISO 9001 systems to all sites by end 2010

### Non-production sites certified to ISO 9001

Business line	Product line	2008			2009		
		Total sites	Number with certified MS	Coverage	Total sites	Number with certified MS	Coverage
Hanson UK	All	24	6	25%	22	7	32%

# Climate change and energy

“A project was launched at the end of 2009 with a target to reduce electricity consumption at our aggregates and asphalt production sites.”

## 6. Energy efficiency

**Overall energy consumption in terms of kilowatt hours fell during 2009, largely due to reduced production volumes and site closures but also due to improved efficiency measures. However, many sites were running at reduced production volumes and efficiency, particularly in building products and aggregates where the energy consumption per tonne increased.**

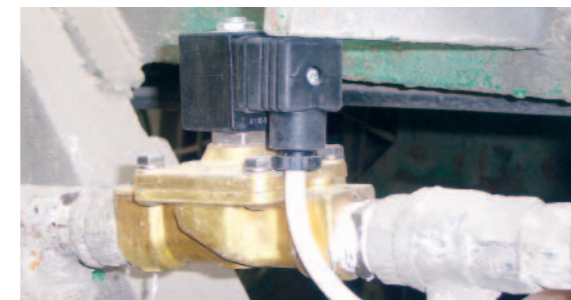
The building products comparison with 2005 was also affected by the transfer of the packed products sites, which have a relatively low energy consumption, into the cement division. Cement, concrete and building products all showed improved energy efficiencies.

We are continuing to focus on reducing electricity consumption and managing supply demand. A project named ECCOR (energy consumption and cost reduction) was launched at the end of 2009 with a target to reduce electricity consumption and peak demands at our aggregates and asphalt production sites. It involves both procurement and operational staff and revolves around two key elements – improved purchasing of electricity from suppliers and better day-to-day management.

In 2005, the aggregates division introduced energy and productivity KPIs, resulting in improved energy efficiencies. Groups of managers were joined by representatives from the best practice team on two-day site visits to look at every aspect of electricity consumption and come up with ideas for improvement. They identified problems with systems that weren't operating properly, machinery that was left on while not producing and lighting that was not required for safety or production. Building on the work done internally, a partnership was formed with the Carbon Trust in 2008 to identify and set electricity savings targets at six large sites. This was followed by a larger scale, industry-wide project by the Carbon Trust to drive down total energy consumption. It looked at everything from transport and internal road gradients to use of compressed air and moisture content of aggregates.

An electronic metering and reporting system called Sie Smart, developed by electro-engineering specialist Siemens in conjunction with Hanson UK, has been introduced to track and analyse electricity consumption. Sie Smart provides half-hourly energy consumption for the period up to the previous day and allows users to investigate unusual or erratic activity and compare consumption over set periods ranging from one day to a year. The results can be e-mailed to colleagues

and printed out for display on site notice boards to highlight operational efficiency. The Sie Smart system issues alerts if there is unusually high power consumption and can measure the effectiveness of power-saving improvements.



At Erith concrete plant in Kent a simple solenoid valve fitted to the compressor tank and linked to the batch console means no air is lost through leaks in the system, the compressor maintains pressure and doesn't switch on or off during quiet periods

Energy consumption – kilowatt hours per tonne						
Business line	Product line	Baseline 2005	2008	2009	% change since 2005	% change since 2008
Cement	Cement and GGBS	681.39	568.95	540.42	-20.69	-5.01
	SRM and packed products	510.20 <sup>1</sup>	111.78	117.37	No data <sup>4</sup>	5.00
Building products	All	265.25 <sup>3</sup>	341.15 <sup>5</sup>	340.44	No data <sup>4</sup>	-0.21
Quarry products	Aggregates	30.31	28.48	30.24	-0.24	6.17
	Concrete	2.24	1.76	1.72	-23.43	-2.55
Hanson UK		95.33 <sup>2</sup>	80.02 <sup>2</sup>	81.80	-14.19	2.22

Energy consumption – total megawatt hours						
Business line	Product line	Baseline 2005	2008	2009	% change since 2005	% change since 2008
Cement	Cement and GGBS	3,263,929	2,431,461	1,682,768	-48.44	-30.79
	SRM and packed products	131,672 <sup>1</sup>	161,635	173,106	No data <sup>4</sup>	7.10
Building products	All	1,507,481 <sup>3</sup>	1,029,088	627,332	No data <sup>4</sup>	-39.04
Quarry products	Aggregates	1,266,083	1,116,150	793,858	-37.30	-28.88
	Concrete	28,621	20,260	12,938	-54.80	-36.14
Hanson UK		6,197,786 <sup>2</sup>	4,758,594 <sup>2</sup>	3,290,003	-46.92	-30.86

**Notes**

- <sup>1</sup> SRM only
- <sup>2</sup> Amendment made to 2005 and 2008 data since last year's report due to inclusion of SRM
- <sup>3</sup> Includes packed products
- <sup>4</sup> No comparison made due to transfer of packed products from building products to cement (others)
- <sup>5</sup> Changed from last year's report as packed products has moved into the cement business line

**Targets**

Reduce energy consumption by five per cent per tonne between 2008 and 2012 across all business lines

Reduce energy consumption for the overall business by a total of 20 per cent by 2012 based on 2005 baseline



A new £3.6 million marine sand and gravel processing plant at Frindsbury Wharf on the river Medway in Kent is fitted with metering equipment to allow specific energy consumption data to be produced and interrogated

# Climate change and energy

“A highlight of 2009 was the official opening of our £50 million soft mud brick factory at Measham in Leicestershire.”

## 7. CO<sub>2</sub> emissions from production

**Absolute emissions of CO<sub>2</sub> continued to fall across all business lines. The inefficiency of reduced production volumes led to an increase in CO<sub>2</sub> emissions per tonne for bricks, blocks, precast concrete and aggregates although our overall emissions per tonne decreased slightly from 2008. This was due to improvements made in 2009 and the sale of our lime kiln at Cheddar in Somerset.**

The quarry products and building products business lines continue to use good quality combined heat and power supplied by npower since 2008.

We remain committed to achieving our target of reducing carbon emissions by five per cent per tonne for building products, aggregates and concrete and net carbon emissions by five per cent per tonne for cement by 2012 based on 2008 figures. But we accept that this will be tough given that increased production volumes will be critical to success.

In November 2009, we became the first major construction materials company to work with the Carbon Trust on a change management programme

for employees. The programme is designed to instil a new culture aimed at making everyone more energy aware and empower all staff to raise and support the implementation of new ideas for energy saving, thus reducing energy use and carbon emissions. The initial training, led by Carbon Trust consultants, covered how to engage people, collate ideas and solve problems and encouraged managers to identify and support ‘energy champions’ for their sites.

It involved group training and discussion sessions with follow-up action plans developed for application in the workplace. These encourage teams to come up with ideas to save energy on their own sites. An opportunities database has been established to track specific projects and record improvements. Four pilot sessions were held covering managers and supervisors from 18 asphalt plants who immediately identified significant energy savings. The programme is being rolled out to more sites and offices during the year with staff who attended the pilots leading the sessions.

A highlight of 2009 was the official opening of our £50 million soft mud brick factory at Measham in Leicestershire. The factory is the most modern and efficient in Europe with the capacity to produce 100 million bricks a year. Built on brown field land,

previously a landfill site for factory waste, the plant features a low energy, zero production waste to landfill process, which is fully automated. It has been designed to the BREEAM ‘very good’ environmental standard with a focus on energy saving and water conservation.

The plant uses 50 per cent less energy than conventional soft mud brick plants. The 170-metre long tunnel kiln uses natural gas and is designed for maximum thermal efficiency. Waste heat from the kiln is used to dry the bricks before firing. Setting, de-hacking and packing of the bricks are all carried out by robots and the entire process is monitored by control systems to optimise efficiency.

Despite this major investment, carbon emissions per tonne of bricks has increased. This is partly due to lower volumes across the business but also to the market split showing an increase in the proportion of London (Fletton) bricks being sold – these are often specified as being required by planning for extensions of older housing stock. The Fletton product is inherently higher in carbon emissions per tonne due to its lighter weight and the natural carbon burnt from the clay as part of the firing.

### Kilogrammes of CO<sub>2</sub> per tonne of product

Business line	Product line	Baseline 2005	2008	2009	% change since 2005	% change since 2008
Cement	Cement	924.00	839.00	832.33	-9.92	-0.80
	GGBS	48.00	46.00	47.23	-1.60	2.68
	SRM and packed products	202.78 <sup>1</sup>	33.68	31.95	No data	No data
Building products	Bricks	284.00	276.40	307.66	8.33	11.31
	Blocks, Thermalite, floors and precast	23.00	19.84	21.25	-7.62	7.09
Quarry products	Aggregates inc marine	4.65	4.03	4.63	-0.41	14.91
	Concrete	1.06	0.81	0.77	-26.89	-4.33
	Asphalt	29.20	28.10	27.66	-5.26	-1.55
	Lime	1,030.00	1,028.00	891.34 <sup>3</sup>	-13.46	-13.29
Hanson UK		57.66 <sup>2</sup>	50.45 <sup>2</sup>	50.09	-13.13	-0.72

#### Note

Aggregates, asphalt and blocks data for 2008 and 2009 has been calculated using the emission factor for good quality combined heat and power

### Tonnes of CO<sub>2</sub> from production

Business line	Product line	Baseline 2005	2008	2009
Cement	Cement and GGBS	2,632,640	2,129,483	1,503,126
	SRM and packed products	47,563 <sup>1</sup>	48,710	47,116
Building products	All	598,910	409,605	250,981
Quarry products	Aggregates	174,983	143,416	106,743
	Asphalt	116,228	98,142	88,250
	Concrete	13,466	9,380	5,846
	Lime	164,896	123,332	12,493 <sup>3</sup>
Hanson UK		3,748,686 <sup>2</sup>	2,962,068 <sup>2</sup>	2,014,554

#### Notes

<sup>1</sup> SRM only

<sup>2</sup> Correction applied for 2005 and 2008 data due to inclusion SRM

<sup>3</sup> Lime only part year data – business sold in 2009

#### Targets

Reduce carbon emissions by five per cent per tonne for building products and quarry products by 2012 based on 2008 figures

Reduce net carbon emissions per tonne of cement by five per cent by 2012 based on 2008 baseline

# Climate change and energy

“Hanson Cement won the title of London Freight Operator of the Year at the 2009 GreenFleet awards.”

A new strategy is being developed to increase movement of material by rail

## 8. CO<sub>2</sub> emissions from transport

**We continue to invest resources in improving the efficiency of our delivery fleet. Each business line has dedicated logistics specialists tasked with ensuring our vehicles are operated to the maximum benefit of the business and the environment. We have a policy of purchasing low emissions vehicles (Euro 5) for both our lorry fleet and site plant.**

We increased the proportion of cement transported by train and will be seeking further opportunities to increase the overall quantity of products delivered by rail.

In line with our commitment made in 2008, we have been working on the setting of improvement targets for the next five years. Because our vehicle fleet is diverse and in some parts of the business mostly operated by franchisee owner-drivers, collecting accurate fuel consumption data (and therefore measuring carbon emissions) is extremely difficult. In developing our targets, the key areas we have considered are:

- reducing empty movements
- improving monitoring systems to allow knowledge of truck utilisation

- increasing the use of articulated vehicles with greater fuel efficiencies for aggregates and asphalt
- increasing the move to rail

Performance data for 2009 has been influenced by the decline in the market – site closures in general mean that we have to transport materials further. This is particularly apparent in road haulage, where the average distance travelled per tonne of material has increased in all business lines. For aggregate movements by rail, the main long hauls are from the south west and midlands into the south east; the decline in the south east market has meant that rail transportation reduced in 2009. Conversely for cement, which tends to travel further, we have increased replacement of road transport by rail.

In the cement division we have a fuel champion tasked with cutting diesel consumption. Working in partnership with the company's 250 drivers, the measures introduced are already saving 1,000 tonnes of CO<sub>2</sub> emissions annually and more than £300,000 on the fuel bill.

A programme of reducing the height of the delivery fleet's curtain-sided trucks to reduce drag has given a six per cent saving in fuel use. Reducing top speeds

from 56mph to 54mph has saved an extra four per cent without affecting productivity. Other moves include auditing the fleet's diesel use with onboard driving style diagnostics, a twice yearly newsletter for drivers and a detailed assessment of the fuel efficiency of all new vehicles.

Successful low carbon initiatives within Hanson Cement won the business the title of London Freight Operator of the Year at the 2009 GreenFleet awards. This followed the award of Transport for London's bronze performance status in the Freight Operator Recognition Scheme for the cement depot behind King's Cross station. All deliveries come in by train, saving 8,000 lorry trips every year.

In the quarry products division, we have introduced an articulated tipper trailer that improves fuel consumption and productivity. The TPX trailer features a lighter body, conical shape and angled rear door and wheel fins to reduce drag and boost efficiency. As well as improved fuel economy of up to 4.8 per cent, it carries half a tonne more than standard articulated trailers. The building products division is developing plans to reduce empty trailer mileage by collaborating with another operator.



# Climate change and energy

## CO<sub>2</sub> emissions from transport (cont)

Material transported with associated CO <sub>2</sub> emissions								
Business line	Product line	Mode	2008 <sup>4</sup>			2009		
			Tonnes moved	Kg CO <sub>2</sub> / tonne	Tonnes CO <sub>2</sub> / year	Tonnes moved	Kg CO <sub>2</sub> / tonne	Tonnes CO <sub>2</sub> / year
Cement	Cement and GGBS	Road	4,333,578	7.68 <sup>1</sup>	33,290	3,159,862	8.87	28,043
		Rail	269,162	5.75	1,549	280,754	5.76	1,618
		Water <sup>3</sup>	201,467	3.85	776	166,239	3.91	650
	SRM and packed products	Road	No data	No data	No data	1,583,000	6.04	9,562
Building products	AlP <sup>2</sup>	Road	No data	No data	No data	1,783,374	4.81	8,577
Quarry products	Aggregates	Road	15,277,000	3.78	57,696	14,100,293	4.05	57,088
		Rail	2,323,315	4.72	10,976	1,766,572	4.82	8,519
		Water	308,800	1.27	391	148,634	1.06	158
	Concrete	Road	11,331,520	1.37	15,489	7,263,082	1.56	11,359
Hanson UK			34,044,842	3.53	120,167	30,251,810	4.15	125,573

### Notes:

<sup>1</sup> The basis for calculation in 2009 is on actual fuel data (mpg) for cement rather than Defra emission factors. The 2008 data has been recalculated on the same basis to aid comparison

<sup>2</sup> Building products data covers 90 per cent of products moved. Data is not available for floors and precast division

<sup>3</sup> Water transport data for cement (movement of GGBS by sea around the coast) became available in 2009 and has been included. 2008 data has been back populated

<sup>4</sup> 2008 data has been recalculated using the same methodology used for the 2009 data to aid comparison between the years. The basis of calculation is using vehicle km emission factors rather than tonne km emission factors used previously. Emission factors are taken from the 2009 Guidelines to Defra/DECC's GHG conversion factors for company reporting. 2008 figures exclude building products

Mode of transport				
Business line	Product line	Mode	2008	2009
Cement	Cement and GGBS	Road	90.20%	87.61%
		Rail	5.60%	7.78%
		Water	4.19%	4.61%
	SRM and packed products	Road	100%	100%
Building products	All	Road	100%	100%
Quarry products	Aggregates	Road	85.30%	88.04%
		Rail	12.97%	11.03%
		Water	1.72%	0.93%
	Concrete	Road	100%	100%
Hanson UK		Road	91.23%	92.14%
		Rail	7.33%	6.80%
		Water	1.44%	1.05%

### Target

#### Reduce carbon emissions per tonne delivered by:

- reducing empty mileage by 10 per cent in cement, GGBS and building products fleet by the end of 2012 based on end 2009 figures
- increasing average payloads of cement and GGBS fleet by 2.5 per cent by the end of 2012 based on end 2009 performance
- completion of Euro 5 engine installations for cementitious and building products fleet by 2015 (with subsequent particulate and NOx emissions reduction)
- driver training in building products fleet to achieve a three per cent reduction in fuel consumption
- fully implementing optimisation technology software within the aggregates and asphalt fleet by 2012
- carrying out a full review of vehicle movements throughout the UK leading to a new rail strategy with at least one project being identified for progression by 2012
- preparing a programme to extend the use of articulated vehicles with annual reporting on progress. This will include completing trials of non-tipping articulated vehicle technology and a review of customer site limitations



The TPX trailer improves fuel consumption and productivity

# Natural resources and enhancing the environment

“Our use of recycled materials has increased in a declining market.”

## 9. Materials efficiency

**Our use of recycled materials has increased despite the declining market. Our asphalt plants use up to 25 per cent recycled material in the base course mixes and our national average for all asphalt has risen to 11 per cent (including the use of filler dust, a by-product). The target for 2012 remains at 12 per cent but this will be tough to achieve in the current depressed market as fewer new roads requiring base course materials are being constructed.**

In line with our commitment last year, our overall strategy in the use of recycled aggregates has been reviewed and we will continue to focus on two areas – maximising the use of road planings in asphalt and maximising the use of GGBS and fly ash (PFA) in concrete. In addition we will continue to sell recycled aggregates as a part of our product mix where there is a demand for it. The commercial and sustainability evaluation of other product areas is continuing.

Use of biomass – carbon neutral fuels – in the cement kilns has increased rapidly since 2002 and we are working towards our target of increasing the use of alternative fuels in cement production to 70 per cent by 2012. The use of ground granulated blast furnace slag (GGBS) as a cement replacement in concrete has increased. GGBS reduces embodied CO<sub>2</sub> and provides a number of other benefits.

A major housing regeneration scheme in Liverpool which used Hanson Structherm's cladding systems has won two national awards. The scheme for Liverpool Mutual Homes won the 'reducing carbon' category at the Homes and Communities Agency 2009 academy awards. That followed success at the Housing Excellence awards when it was named 'Regeneration Scheme of the Year'.

The Liverpool scheme, which is part of a wider £30 million regeneration project, involves improving around 600 homes on the Daneville Estate.

A year ago the estate was considered for demolition, but the Hanson Structherm solution to refurbish the properties proved to be a sustainable and cost-effective alternative. The cladding provides major benefits to poorly insulated properties and averts the need to demolish entire estates and fragment communities.



Before and after... an award-winning regeneration scheme in Liverpool used Hanson Structherm's cladding systems

Secondary / recycled aggregates and additions					
Business line	Product line	Recycled materials	2008	2009	Definitions
Cement	Cement	Cement: by-products or waste used as raw material	49%	49.52%	Total GGBS and any ARM divided by sum cement and GGBS production
Building products	Aggregate blocks	Recycled aggregates	46.76%	45.82%	Recycled aggregate as a % of total aggregates used
	Blocks, Thermalite, floors and precast	Cement additions	5.25%	12.05%	% of cement substitutes that went into concrete
	Bricks	Clay replacement	4.36%	3.90%	Recycled aggregates used as clay replacement
Quarry products	Aggregates	Recycled aggregates	1.20%	2.20%	% of external sales that were recycled
	Asphalt	Recycled aggregates into asphalt incl filler	10.20%	11.38%	% of recycled aggregate and filler that went into asphalt
	Concrete	Recycled aggregates in concrete	0.10%	0.16%	% of aggregate that went into concrete that was recycled
	All	Total recycled aggregates	2.40%	2.81%	% of total aggregate sales (including internal) that were recycled
		Concrete additions cement replacement (GGBS, PFA)	36.40%	38.46%	% of cement substitutes that went into concrete

Fuels derived from waste			
Business line	Definitions	2008	2009
Cement	Waste used as fuel	152,031t (45%)	143,254t (49.14%)
	Biomass used as fuel	69,612t (16%)	68,171t (22.00%)
Quarry products	Recovered oil used as fuel (asphalt)	18,497t (57%)	15,816t (60.64%)

**Targets**

- Increase the use of alternative fuels used in cement production to 70 per cent and in particular increase the use of biomass by 2012
- Increase recycled materials in asphalt to 12 per cent by 2012 (including filler)
- Increase the use of cement replacement materials in concrete to 40 per cent by 2012

# Natural resources and enhancing the environment

“We have established baseline data for controlled water.”

## 10. Water

**Water is a valuable commodity and we continue to strive to reduce consumption across the business.**

We have established baseline data for controlled water for concrete and aggregates and set specific reduction targets for mains water; a lot of effort has gone into collecting the data and we believe we now have robust figures for our baseline. Increased focus has disclosed anomalies in cement water consumption data, which is being investigated and may be due to a faulty meter.

We have not set a target for reduction in controlled water in quarries because although a large volume of water is pumped from sumps or the ground, the vast majority of it is used for mineral washing then returned via lagoons to the natural ground water system. Because of the positions of meters, some sites are recording water that is being recirculated. Where such water is actually used in our products (for example concrete) we have set a reduction target.

Reduced production volumes have had a significant impact on the water consumption figures per tonne of product. For example, although mains water consumption per tonne for building products rose, the division's absolute consumption fell due to reduced production tonnages. The concrete business achieved a drop in consumption in both absolute and relative terms.

A new £3.5 million marine sand and gravel processing plant at Frindsbury Wharf near Rochester in Kent incorporates the latest sustainable measures to save energy, fuel and water and reduce noise, dust and waste. The plant was commissioned in 2009 and can produce 12,000 tonnes of sand and gravel a week. The water recycling plant is effectively a closed circuit, with clean water used time and again and the silt residue returned to the plant for re-processing. Dirty water and silt from the aggregate washing and sand plants goes through an effluent treatment vessel where flocculent is added to separate liquid and solids.

The slurry is discharged at the base of the cone shaped vessel and clear water spills over weir plates into a new clean water storage tank fitted with two pumps, one feeding water to the screen house and the other feeding high pressure water to the bottom of the thickener cone to act as a stirring agent if required.



The new marine sand and gravel processing plant at Frindsbury Wharf on the river Medway features an enclosed water recycling plant

### Water use – litres/tonne

Business line	Product line	2008		2009	
		Mains water	Controlled water	Mains water	Controlled water
Cement	Cement and GGBS	28 <sup>1</sup>	67	51.57 <sup>4</sup>	82.62
	SRM and packed products	No data	No data	101.41	18.33
Building products	All	93	65	167.61	67.64
Quarry products	Aggregates	10 <sup>2</sup>	No data	11.64	383.84
	Concrete	70	No data	68.21	19.33
Hanson UK		31.61 <sup>3</sup>	No data	38.97	248.34

#### Notes

<sup>1</sup> Revision to 2008 data following discovery of an error – cement and GGBS mains now 28 not 19 litres/tonne

<sup>2</sup> Data was aggregates only, excluding asphalt – asphalt now added

<sup>3</sup> Correction to 2008 data – changed from 21 to 31.61 in light of cement and GGBS revision

<sup>4</sup> Increased consumption recorded due to possible leak/faulty meters at Ketton. Investigation ongoing in conjunction with suppliers. Net of this site, the consumption is 39 litres/tonne for cement business

### Water consumption – cubic metres

Business line	Product line	2008		2009	
		Mains water	Controlled water	Mains water	Controlled water
Cement	Cement and GGBS	118,686 <sup>1</sup>	293,592	160,581 <sup>4</sup>	257,269
	SRM and packed products	No data	No data	149,559	27,031
Building products	All	388,061	272,872	307,421	124,056
Quarry products	Aggregates	294,275 <sup>2</sup>	No data	250,281	8,255,251
	Concrete	804,626	No data	514,542	145,825
Hanson UK		No data	No data	1,382,384	8,809,432

#### Targets

All business lines to reduce mains water consumption per tonne produced by five per cent by the end of 2012, based on 2008 figures for cement and 2009 for other business lines

Concrete and building products to reduce total water consumption per tonne produced by two per cent by the end of 2012 based on 2009 figures

Continue to improve data on ground water consumption in quarries and cement plants where we have water recirculation systems



# Natural resources and enhancing the environment

“In 2009 our parent company HeidelbergCement became the first in the industry to produce a Group guideline on the promotion of biodiversity.”

## 11. Site stewardship

**The number of biodiversity and geodiversity action plans (BAPs and GAPs) on our sites has increased in line with our target. We have standardised the reporting of data in this section to ensure consistency and to take account of both active and non-active sites.**

We currently have a number of sites, which are mothballed, but which still have biodiversity or geodiversity benefits. The active sites category covers those that have been operational at some point since 2007 and are still under our control. The non-active sites have been closed throughout that period but have ongoing biodiversity or geodiversity action plans.

In 2009 our parent company, HeidelbergCement, became the first in the industry to produce a Group guideline on the promotion of biodiversity at its mineral extraction sites. The guideline defines standards for restoration of sites and ensures that after-use plans take into account the economic, ecological and social needs of the community. The guideline is being applied, in the first instance, to all locations in Europe. Elsewhere, it will serve as a handbook of recommendations for action, taking into account specific regional circumstances.

At its core are 10 principles geared towards promoting dialogue with all parties involved, as well as increasing biological diversity before, during and after quarrying to protect the landscape and nature.

In the UK we are playing our part in creating new habitats and protecting valuable species on our sites. A project to translocate the *Alchemilla micans*, Britain's rarest lady's mantle, at Keepersfield quarry in Northumberland won praise from one of the country's foremost botanists. Dr John Richards, retired professor of botany at Newcastle University, writing in the Botanical Society's journal said: "I confess I was sceptical about the likely success of this exercise, and thought privately that the main British locality for this species had probably been lost. But in my opinion this translocation has been a resounding success, and might well serve as a model should similar exercise prove necessary elsewhere."

The rare plant is found on only a handful of sites in north east England, all of which are grasslands with shallow soils overlying whinstone or dolerite. One of the most prolific at Keepersfield had planning permission for quarrying, so after widespread consultation it was decided to transplant the entire habitat onto bare level whinstone in an area that will eventually form part of the final restoration plan for the site.

White clawed crayfish – a red listed species – are being established in the reed bed area at Ripon quarry in North Yorkshire. The work is being carried out at the specific request of the Environment Agency to deal with the competition to native species from signal crayfish, which carry an array of diseases. The quarry team has placed some small boulders in the water to form the ideal hideaway habitat for the crayfish.

More than 50 pairs of sand martins made nests in a sand face at Birch quarry near Colchester in Essex and colonise many of our sites. Lapwings have also had a good year at Birch and at least two pairs of little ringed plovers have been spotted.

Red kites have been observed at Allerton Park quarry in Yorkshire. And at Leeds asphalt plant flowering bee orchids, which only grow on previously disturbed industrial ground, are flourishing.

We planted nearly 36,000 trees in 2009 despite it being one of the toughest years on record for our industry.

Site stewardship		
	2008	2009
Number of relevant sites (mineral extraction sites)	102	102
Number of sites with approved restoration plans	98 (96%)	99 (97%)
Active sites with BAP/GAP	39	50
Non-active sites with BAP/GAP	2	2
Active marine sites with BAP/GAP	3	3
Area of sites under archaeological investigation	195ha	265ha

### Target

Increase BAPs and/or GAPs by 10 per year for the next three years (established in 2009)



Careful restoration of former sand and gravel quarries can create valuable habitats and increase biodiversity



An osprey pictured over the lake at Ripon quarry in North Yorkshire (photo: Brian Morland)



Pyramidal orchids flourish in restored areas at Ripon sand and gravel quarry in North Yorkshire (photo: Brian Morland)

# Creating sustainable communities

“Reportable and lost time injuries fell by 36 per cent.”

## 12. Health and safety

The number of reportable and lost time injuries in 2009 fell by 42 to 74 – well within our target of a 13 per cent year-on-year decrease. More importantly, the lost time injury (LTI) rate also fell based on the average number of people employed during the year. This year we have added into our reporting the rate of LTIs per one million hours worked. This is being adopted as a standard industry indicator.

Our principal trade body, the Mineral Products Association (MPA), has this year set the new overarching aim of achieving Zero Harm through continual year-on-year improvement. By the end of 2014, the MPA's new interim targets are to:

- Halve the lost time injury frequency rate for direct employees
- Halve the cumulative number of contractor lost time Injuries

We fully support these targets and expect to achieve them.

Hanson UK won the health and safety best practice award and the 'social pillar' category at the European aggregates association (UEPG) Sustainable Development Awards.

The award was for a project started at Criggon quarry in Shropshire in 2008 and prompted by repeated injury incidents involving falls from mobile plant. An in-company survey of all UK mobile plant was commissioned to identify and install remedial measures. Machines were inspected for evidence of defective design and 550 individual machine reports were generated by their operators, covering 260 items of mobile plant. Managers and staff co-operated positively and installed a wide range of practical health and safety improvements, reducing accident potential. Knowledge from this survey provided the nucleus for the MPA's 'Safer by Design' programme.

The initiative had previously won the TUC Trophy for worker involvement at the MPA's 2008 health and safety best practice awards scheme.

Hanson Contracting has received a British Safety Council international safety award for the third successive year, recognising its commitment to improving corporate health and safety. The division also received an Order of Distinction from The Royal Society for the Prevention of Accidents to mark 18 consecutive years of achieving its gold standard for its occupational health and safety management system.



Each division has a health and safety working group consisting of site safety representatives and managers to discuss issues and share best practice

Lost time injuries – reportable and non-reportable						
Business line	Product line	2008		2009		Number per 1,000,000 hours worked
		Number	Number /100,000 employees	Number	Number /100,000 employees	
Cement	All <sup>1</sup>	16	1,103	8	683	3.26
Building products	All <sup>2</sup>	77	2,433	51	2,230	10.63
Quarry products	Aggregates	17	1,013	13	913	3.96
	Concrete	6	703	2	287	1.37
Corporate	Corporate	No data	No data	0	0	0.00
Hanson UK		116	1,681	74	1,231	5.78

**Notes**

<sup>1</sup> Includes SRM

<sup>2</sup> Includes packed products

**Targets**

- A 13 per cent year-on-year reduction in lost time injuries
- Accredit all health and safety systems to ISO 18001 by 2012



Hanson UK won the health and safety best practice award and the 'social pillar' category at the European aggregates association (UEPG) Sustainable Development Awards

# Creating sustainable communities

“We have continued to invest in training and skills. Spending per head increased during 2009.”

## 13. Employment and skills

Since the financial crisis of 2008, Hanson UK's production volumes have fallen by almost 40 per cent resulting in a fall in employee numbers of 36 per cent. Total staff employed at the end of 2009 was 5,581.

However, we have continued to invest in training and skills. Spending per head increased during 2009 with a focus on health, safety and environmental training.

A series of half-day training sessions were carried out for over 200 senior managers specifically to cover sustainability and responsible sourcing, to increase awareness of developments in this area. This is continuing and being supported by the use of toolbox talks to take the messages to the entire workforce.

Contracting division has been fully accredited to the Investors in People standard. Achieving this important external recognition is a major step in efforts to become a Tier One Supplier.

In February 2009, as part of an ongoing company-wide employee engagement programme called 'One Team', an employee survey was carried out to measure levels of job satisfaction and engagement. This focused on communication, motivation, team building, leadership and performance management and development.

To tackle issues identified, and to improve employee motivation, engagement and performance, a training programme for managers called 'Leading in Challenging Times' was introduced.

The workshop format was designed to support re-engagement of managers and promote the key elements of 'One Team' by bringing small groups together to link theory and practice and offer realistic solutions to the leadership issues they faced. Participants were encouraged to share their difficulties and at the same time encouraged to focus on the future. The training was aimed at senior and middle managers to encourage the principle of leading by example and to ensure a systematic approach throughout the organisation.

We continue to improve benefits for employees. A new service has been introduced to help staff who face personal, legal or financial problems – or just need advice. FirstAssist provides a round-the-clock telephone counselling service through which employees can receive individual and confidential support on a broad range of work-related and personal issues, including financial management, stress, bereavement and relationships.

Our employee charity matching scheme contributed more than £32,000 to 54 charities during 2009 and has helped raise more than £1 million since its introduction in 1994. The scheme encourages employees to raise money for charity by matching their fund-raising up to £500.

### Employees covered by ISO 14001 / ISO 9001 training systems

	2008	2009
Hanson UK	7,148 (96%)	6,103 (95.14%)

### Target

100 per cent of production employees to be covered by ISO 14001/ 9001 training systems



Employees who organise charity events can apply for matched funding from the Hanson charity match scheme



A group of quarry products staff proudly display their NVQ certificates

# Creating sustainable communities

“Local managers are encouraged to build links with their neighbours.”

## 14. Local community

Despite our overall size, we operate, in effect, as a series of independent local businesses, providing jobs in mainly rural areas and playing a part in community affairs. Local managers are encouraged to build and maintain close links with neighbours and ensure the business remains both an accepted and acceptable part of the local community. Visits to Hanson sites, particularly from schools, are welcomed. Visiting groups include local residents, planning officers, environmentalists, professional associations and students.

Our larger sites operate liaison committees attended by councillors, council officers and residents' representatives. We recognise that our operations are part of the local community and strive to be good neighbours. We also help charities and voluntary groups in the areas around our sites and offices by providing monetary or materials donations.

We have been pleased to support the development of a £600,000 field study centre provided by the quarrying industry in Somerset, which was formally opened by The Princess Royal in July, 2009. The Somerset Earth Science Centre at John Wainwright's Moons Hill quarry near Shepton Mallet is funded and managed by the Mendip Quarry Producers (MQP), an association of the leading quarrying companies in Somerset. It has been developed from Hanson's East Mendip study centre, which for 12 years was housed in a former office block adjacent to Whatley quarry and received over 4,000 visitors a year from more than 50 different schools, colleges, organisations and clubs.

The purpose-built centre provides a range of curriculum-related topics linked to quarrying for students of all ages from primary school through to adult learning. The new single-storey building is designed to be carbon neutral and features a number of energy saving qualities including its own wind-power turbine and a high thermal mass to retain heat in the winter and stay cool in summer. It is available for wider community use in school holidays and during the evenings.

Community relations		
	2008	2009
Relevant sites	102	79
Sites with liaison activity	64 (63%)	54 (68%)
Number of visitors	12,261	7,577

### Target

Ensure all relevant sites are proactive in liaising with their local communities by 2012



HRH Princess Anne opened the new Somerset Earth Science Centre (left) near Shepton Mallet



Young visitors to an open day at Chipping Sodbury quarry in South Gloucestershire

# Working together for sustainability

## **We recognise the need to work together with partners, stakeholders and competitors to maximise our sustainability credentials.**

We work closely with many organisations to ensure we understand and influence the industry in developing robust sustainability policies across all our business lines.

We are members of the Mineral Products Association (MPA), the trade body which represents the aggregates, asphalt, cement, concrete, lime, mortar and silica sand industries, contributing £5 billion of value to the UK economy. We provide information and data for all MPA sustainability reports.

We are also founding members of the UK Green Building Council (UKGBC), whose mission is to improve the sustainability of the built environment, and we are members of the Construction Products Association (CPA), which represents UK manufacturers and suppliers of construction products.

We are members of the Corporate Forum for National Parks, which provides a platform for discussion and debate with the Campaign for National Parks and with other businesses, which operate within the parks.

[www.mineralproducts.org](http://www.mineralproducts.org)  
[www.ukgbc.org](http://www.ukgbc.org)  
[www.constructionproducts.org.uk](http://www.constructionproducts.org.uk)  
[www.cnp.org.uk](http://www.cnp.org.uk)

## **Further information**

Visit our website at [www.hanson.com/uk](http://www.hanson.com/uk) for more information about the company, its products and our commitment to sustainability. You can also download copies of our sustainability policy and responsible sourcing certificates. If you have a specific question for our environment team, send an e-mail to [environment@hanson.com](mailto:environment@hanson.com) or call **01628 774100**.

## **Other useful sources of information:**

**HeidelbergCement AG**  
[www.heidelbergcement.com](http://www.heidelbergcement.com)

**The Carbon Trust**  
[www.carbontrust.co.uk](http://www.carbontrust.co.uk)

**The British Trust for Ornithology**  
[www.bto.org](http://www.bto.org)

**The Royal Society for the Protection of Birds**  
[www.rspb.org.uk](http://www.rspb.org.uk)



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