

Hanson UK



**> SUSTAINABILITY 2017
SUMMARY REPORT**

HIGHLIGHTS

- Waste to landfill halved
- Mains water use down
- 2020 target reached for recycled asphalt plantings in new asphalt
- Graduate training programme introduced
- Stakeholder engagement extended
- Top European restoration award secured
- 361 times more waste recycled or re-used than sent to landfill

AREAS FOR IMPROVEMENT

- Employee lost time injuries and quest for zero harm
- Delivery fleet utilisation and efficiency
- Energy use and CO₂ emissions
- Dust emissions



Cover image: LEAD apprentice Reece Phillips at Barton quarry in Staffordshire.



INTRODUCTION

I am pleased to report on a year of progress in 2016. Capital investment was up 40 per cent with a significant amount spent on projects designed to save energy, reduce emissions or eliminate hazards.

In addition to buying new trucks with increased payloads and the latest Euro 6 engines, we replaced and upgraded both fixed and mobile plants and re-opened the Teesside Regen plant creating 25 new jobs. We also made a big transformation to our customer-facing services with the consolidation of three offices into a centralised customer service centre.

In 2017 we plan to double our capital spending with sustainability again at the core. An order for two new energy-efficient marine aggregate dredgers represents the single biggest investment in the UK for more than 10 years. And an extensive upgrade project at our Victoria Deep wharf on the Thames

at Greenwich will create a fully-enclosed manufacturing and distribution facility at the heart of the booming London market.

In addition, we will be investing in numerous smaller projects to reduce energy consumption and emissions, increase the use of recycled products and improve the efficiency and reliability of our plants.

We are also working hard to ensure our employees are fully engaged. Our 'One Team' philosophy is underpinned by a set of values and aspirations designed to make our people feel connected, involved and valued. This is critical if we are going to make the step change we are seeking to put us ahead of our competitors.

Daniel Cooper

Chief executive officer, Hanson UK



See our new sustainability video:
hanson-sustainability.co.uk



ENABLING SUSTAINABLE CONSTRUCTION

We continue to work closely with our customers to help them deliver sustainability-based standards required both by their own organisations and their clients. This includes developing products that deliver a low carbon impact through reduced energy, greater use of recycled material, or reduced raw materials.

Two stakeholder engagement workshops involving customers and trade associations were held during the year. The first featured a presentation and discussion on the circular economy followed by a site visit to Bulls Lodge quarry and asphalt plant near Chelmsford in Essex.

The second was held at St Ives in Cambridgeshire and included a materiality review of our sustainability reporting and a tour of Needingworth quarry where we are creating Europe's biggest man-made reed bed in partnership with the RSPB.

Hanson Powercrete dissipates heat generated by underground power cables and reduces power loss

75,000 tonnes of recycled Hanson asphalt went into the A338 upgrade

39 per cent of the cementitious material used in our concrete is Regen



PEOPLE AND COMMUNITIES

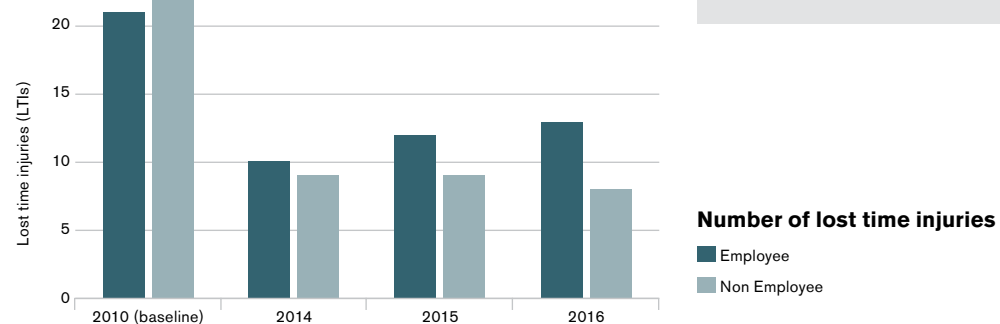
The number of jobs provided at January 1, 2017 was 3,535, an increase of 54 on the prior year. We also provide indirect employment to a large number of contractors, principally engineers, fitters and drivers.

We continued to bring younger people into the business through our craft and higher apprentice schemes and we introduced a graduate training programme for the first time since 2007. Our safety performance in 2016 was disappointing. The total number of lost time injuries (LTIs) remained static at 21 and the employee LTI frequency rate of injuries per one million hours worked rose from 1.74 to 1.84.

On the community side, we have a target for all quarries to hold five community liaison activities a year. This includes site visits, open days and donations of money or materials to local charities and voluntary groups.

We are developing future leaders through a new graduate training scheme and our successful higher apprenticeship programme

We welcomed over 20,000 visitors through open days, school visits and community projects





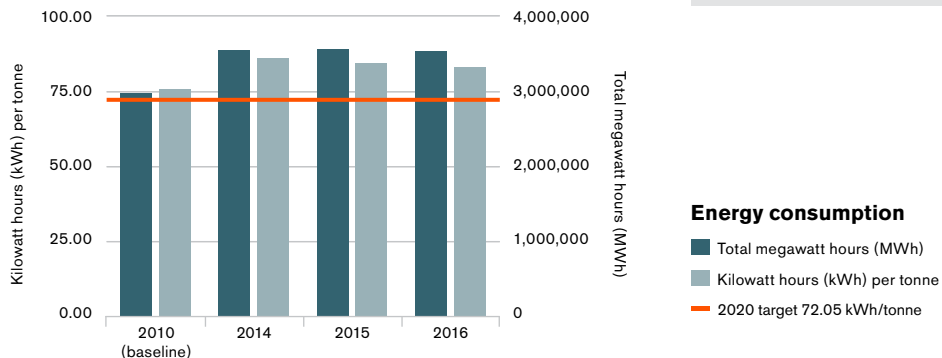
CARBON AND ENERGY

Total energy consumption fell slightly, and there was a 1.2 per cent fall in energy use per tonne of product. We continued to invest in new technology and to embed energy awareness into the business.

Use of alternative fuels in our cement kilns dropped slightly due to the availability and quality of materials, while emissions of CO₂ per tonne of product were broadly flat, although there were notable variances across the product lines.

CO₂ emissions from transport on a per tonne basis fell slightly during the year. Rail deliveries for aggregates increased.

A project to optimise order handling and vehicle scheduling in the aggregates, asphalt and concrete business lines is ongoing. The aim is to improve vehicle use and reduce fuel costs.



Our new fuel efficient trucks are safer, with **lower emissions and higher payloads**

29 of our asphalt plants are programmed to **intelligently shift electricity demand back to the national grid at peak periods**



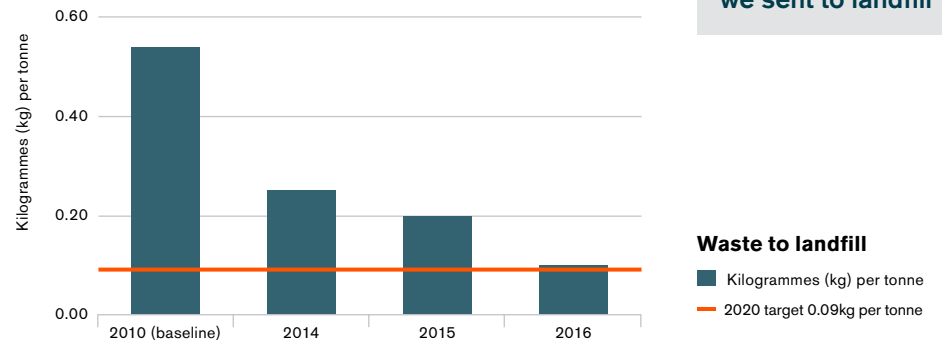
WASTE AND RAW MATERIALS

We reduced waste to landfill by 50 per cent, driven by big falls in cement, concrete and asphalt waste, and are now close to our 2020 target of an 85 per cent reduction on the 2010 baseline figure.

The amount of crushed road waste or recycled asphalt plantings (RAP) used in new asphalt mixes has doubled since 2014. The average RAP content in 2016 was 11 per cent, exceeding our 2020 target of 10 per cent.

There was also a big increase in by-products or waste used in cement – mainly pulverised fuel ash – and a rise in the amount of recycled aggregate used in concrete.

We are developing concrete mixes with a higher content of Regen (ground granulated blastfurnace slag), and working towards our target of 45 per cent cement replacement by 2020.



A **multi-million pound investment programme** will improve the production efficiency and environmental performance of our cement and asphalt plants

We re-used or recycled **361 times more waste** than we sent to landfill

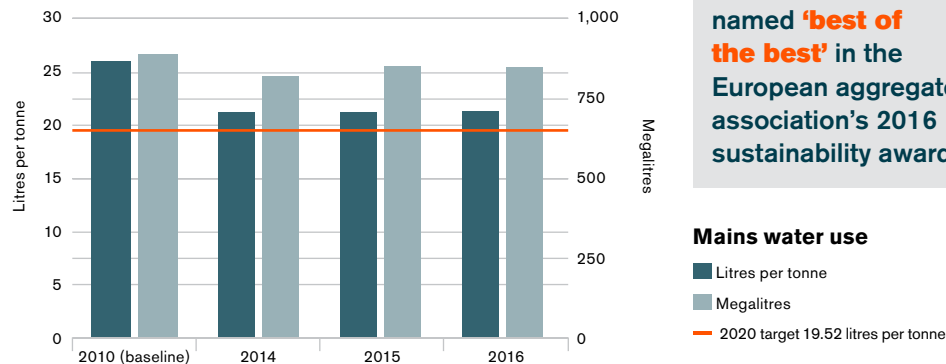


WATER AND BIODIVERSITY

There was a slight fall in mains water use per tonne of product but total water use (mains and controlled) rose. We remain on target to meet our 2020 target for mains water reduction.

We have biodiversity and geodiversity action plans (BAPs and GAPs) in place for all but one of our quarries and they are all published on our website. The exception is the new Smiths Concrete quarry at Woolston in Warwickshire where a BAP is being developed.

We also have an indicator looking at quarries with high biodiversity value. These are defined as those located within 500 metres of a Site of Special Scientific Interest (SSSI) and all of them have BAPs in place. We are developing a database to manage actions within our BAPs and track progress.



We are creating **Europe's largest man-made reedbed** at Needingworth quarry in Cambridgeshire in partnership with the RSPB

The former Middleton Hall sand and gravel quarry in Warwickshire was named **'best of the best'** in the European aggregates association's 2016 sustainability awards



QUALITY PROCESSES AND SYSTEMS

Our integrated management system (IMS) encompasses safety, health, environment and quality. An IMS steering group regularly reviews and updates the system and has this year been working on a project to make it easier for managers to identify relevant tasks by directing them to specific procedures. The steering group has also been working to get the 2015 ISO standards (9001 and 14001) embedded into the IMS and certified before the deadline of April 2018, and also to convert OHSAS 18001 to ISO 45001.

We have a national UKAS-accredited testing laboratory at Chipping Sodbury, which is now providing a commercial service for external customers. We have made improvements to our order and despatch systems to ensure customers receive the right products at the right time and are invoiced correctly. The number of customer complaints received fell from 448 to 408.

We are increasing the use of our cement replacement Regen to create **durable, low carbon concrete mixes to improve sustainability**

Our national laboratories **test hundreds of samples every day to ensure product quality**

High-performance concrete is being used to build **London's second tallest skyscraper 22 Bishopsgate**

OVERVIEW

Effective communication with our workforce is critical if we are going to achieve our 2020 targets. Considerable effort continues to go into awareness around energy and carbon reduction and behavioural safety. These are the two areas where our targets will not be reached without a significant improvement in performance.

Our lost time injury frequency rate increased during the year, which was disappointing, however 94 per cent of our 301 sites went through the year without a lost time injury, and over a half have been lost time injury-free for 10 years or more.

In April we stopped work for two hours for a co-ordinated health and safety stand-down, involving employees, drivers and contractors. Later in the year we ran another successful health and safety week.

Social responsibility is another important element of our sustainability programme and in addition to our community and charitable programmes, we provided specialist training relating to human rights and corruption following the introduction of the Modern Slavery Act and the Bribery Act. We have also made a commitment to pay the living wage as a minimum.

On the customer side, we are able to tap into the resources of a global research and development function which has a clear brief to develop sustainable products and energy-efficient processes.

All these elements – engagement, communication, investment, product development, social and environmental responsibility – are integral to our sustainability strategy and will help our customers and clients to deliver a sustainable built environment.

Paul Lacey
Head of sustainability, Hanson UK

Summary of KPI performance against 2020 targets				
	KPI	2020 target	2016 position	Status
People and communities	Health and safety	Zero harm	Total LTIs static at 21. Employee LTIs up, non-employee LTIs down LTIFR up at 1.84	➔
	Stakeholder performance	Organise an annual stakeholder event for customers, suppliers, community leaders and NGOs	Events were held in April and September	⬆️
	Environmental incidents and emissions	10 per cent year on year reduction in complaints based on 2010 figures Cement specific emissions: Reduce NO _x emissions by 20 per cent and dust by 10 per cent by 2020 based on 2010 data and maintain 2010 SO ₂ level	Complaints rose in 2016 to 214 and are down by 33 per cent on 2010 Target number for 2016 is 151	➔
			NO _x down from 2015 by 5.8 per cent and 12.5 per cent down on 2010 Dust down since 2015 and is down by 9 per cent on 2010. SO ₂ is down on 2015 and 2010	⬆️
	Employment and skills	Meet the targets in the MPA 'Safer by Competence' programme	On target to meet the requirements by 2017	➔
	Local community	Hold at least five community events a year at every quarry	71 per cent of our sites held at least three community events during 2016, up by two per cent on 2015	⬆️
Carbon and energy	Energy efficiency	Reduce energy use by five per cent per tonne of product by 2020 based on 2010 baseline	Down by 1.2 per cent since 2015; remains 5.9 per cent up on 2010	⬆️
	Waste as fuel	Increase the use of biofuel to 35 per cent by 2020	Down by 5 per cent in 2016 to 14 per cent; 2010 level was 23 per cent	➔
	CO ₂ emissions from production	10 per cent reduction in carbon emissions per tonne by 2020 based on 2010 baseline	Up by 0.7 per cent since 2015, but 13.9 per cent up on 2010	➔
	CO ₂ emissions from transport	Reduce transport CO ₂ emissions by five per cent per tonne by 2020 based on 2010 baseline	Down by 1.6 per cent since 2015 and 2.2 per cent since 2010	⬆️
Waste and raw materials	Waste minimisation	Reduce waste to landfill by 85 per cent per tonne by the end of 2020 based on 2010 figures	Down by 50 per cent since 2015 and 82 per cent since 2010	⬆️
	Materials efficiency and recycling	Increase recycled materials in asphalt to 10 per cent by 2020 (excluding filler)	Up by 5.5 per cent since 2015, now 11.1 per cent recycled	⬆️
		Increase the use of cement replacement materials in concrete to 45 per cent by 2020	Up to 38.9 per cent since 2015. Industry average is 29 per cent (ref. Concrete Industry Sustainability Performance Report, 2015)	⬆️
		Increase the number of concrete plants recycling surplus concrete to 95 per cent by 2020	98 per cent of our concrete plants recycle surplus concrete	⬆️
Product quality and performance	Reduce production waste by getting it right first time	Customer complaints reduced	⬆️	
Water and biodiversity	Water	Reduce mains water consumption by 25 per cent per tonne across the business by 2020 based on 2010	Down by 0.3 per cent since 2015 and 20.0 per cent since 2010	⬆️
		Reduce the sum of mains and abstracted water for concrete by 10 per cent per tonne by 2020 based on 2010	Down by 2.0 per cent since 2015 and 4.0 per cent since 2010	⬆️
	Biodiversity and site stewardship	All quarries to implement published biodiversity action plans	98 per cent of quarries have published biodiversity action plans	➔

■ On target or already achieved
■ Additional work required to meet target
■ Target in danger of being missed

2016 performance
 No change ➔ Improved ⬆️
 Target achieved □ Dropped ⬇️

PROVIDING SOLUTIONS TO ENABLE SUSTAINABLE CONSTRUCTION

Supply chain

Integrated delivery solutions around road, rail, barge and ship, and a national network of production facilities.

Aggregate

Recycled blends available.

Asphalt



ERA – low energy asphalt, high wear
– low depth top courses.

Concrete



EcoPlus – low embodied carbon due to high Regen content. Mixes also available with recycled aggregate.

Cement

A range of reduced carbon cements through the use of alternative fuels and raw materials.



Regen – cement alternative, low embodied carbon, 100 per cent by-product source.

See our new sustainability video:
hanson-sustainability.co.uk



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