

## BRITISH PRECAST TARGETS 2020

A new set of Sustainability Charter targets were approved by our Council in August 2013. All British Precast members are now committed to supporting the industry in achieving the following targets by 2020 based on 2012 as the baseline year:

- Reducing overall kWh/ tonne of energy used in production by 10%
- Reducing CO2 emissions for production by 20%
- Reducing overall factory waste by 10%
- Reducing factory waste to landfill to < 0.5 kg/ tonne
- Increasing the proportion of alternative cement additions (as a % of total cement) to 25%
- Increasing the proportion of recycled/ secondary aggregates (as a % of total aggregates) to 25%
- Reducing mains water consumption by 20%
- Reduction in accident frequency of 50% between 2015 and 2020
- Increasing the tonnage, as well as production sites, covered by an EMS (e.g. ISO 14001) to 95%
- Increasing the tonnage, as well as production sites, covered by a quality system (e.g. ISO 9001) to 95%
- Increasing the tonnage, as well as production sites, covered by a Responsible Sourcing standard (e.g. BES 6001) to 95%
- Reducing the convictions for air and water emissions to zero
- Improving the capture of transport data up to 2015 (A target will be set for 2016)
- Increasing the % of employees covered by a certified management system (e.g. ISO 9001/ ISO 14001/ OHSAS 18001) to 100%
- Increasing the % of employees covered by MPA Safer by Competence training and qualifications to 100%
- Maintaining the % of relevant production sites that have community liaison activities at 100%

- + Targets for OHSAS 18001/ Achilles production coverage, transport, and Lost Time Injury (LTI) to be set in 2015/ 2016
- + The 2020 targets will be subject for a review and update in 2016.

For further information, please contact  
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or refer to the British Precast website:  
[www.britishprecast.org](http://www.britishprecast.org)  
[www.bpcfcharter.com](http://www.bpcfcharter.com)  
[www.sustainableconcrete.org.uk](http://www.sustainableconcrete.org.uk)

## RAISING THE BAR INITIATIVE

It is now a mandatory requirement for all companies joining British Precast to sign up to the Precast Sustainability Charter. In order to help members keep track of their status under the *Raising the Bar* scheme and to highlight to clients, specifiers and customers the various management system credentials of members, British Precast maintains a microsite [www.bpcfcharter.com](http://www.bpcfcharter.com)



## PRECAST SUSTAINABILITY CHARTER

The Sustainability Charter was launched on the 29th November 2007. Members were originally asked to make a voluntary commitment to the following requirements:

- Develop products that improve the quality and sustainability of the built environment
- Liaise effectively with local communities to foster mutual understanding and respect
- Manage all waste streams effectively and minimise waste disposal to landfill
- Measure, report and improve performance on sustainability issues
- Minimise pollution and emissions associated with production and transportation
- Operate in a responsible manner to protect employees, contractors and visitors
- Operate in an efficient and financially sustainable manner without compromising legal, quality or sustainability principles
- Operate to the highest ethical standards necessary to develop a skilled and competent workforce
- Operate to the highest quality standards necessary to satisfy customers and consumers
- Protect and enhance the natural environment adjacent to or affected by precast production
- Recognise that competition encourages the development of more sustainable products and practices
- Use energy more effectively and reduce carbon footprints
- Use primary materials more efficiently and promote the use of secondary materials
- Use water more efficiently and minimise demands on mains water supplies
- Work constructively with other organisations to deliver sustainable policies and practices

## DEVELOPMENT ON REAP, EPDs, BIM & OTHER INITIATIVES...

The precast industry was one of the first to complete a **Resource Efficiency Action Plan (REAP)** which looks at the entire supply chain of precast concrete and addresses resource efficiency at different stages beyond the precast factory gate. Measures are currently being introduced to integrate the REAP actions with the wider Sustainable Concrete Strategy. A copy of the Precast REAP can be found at the Sustainability Charter website [www.bpcfcharter.com](http://www.bpcfcharter.com)



The precast sector contributes to the **concrete industry Sustainability Strategy** and Roadmap to 2020, developed by the Sustainable Concrete Forum. More information on the industry sustainability strategy can be found at [www.sustainableconcrete.org.uk](http://www.sustainableconcrete.org.uk)

British Precast is working on **Environmental Product Declaration (EPD)** applications for a wide range of precast concrete products using the methodology recognised by CEN TC350 standards (namely EN 15804). British Precast will work with the wider construction industry on supplying up-to-date and reliable embodied carbon data covering the main applications of precast concrete. British Precast is also exploring different means to support the precast concrete sector in adapting to the requirements of **Building Information Modelling (BIM)**, notably in the development and supply of BIM enabled data and BIM objects.

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## Sustainability Matters 2014

# SUSTAINABILITY MATTERS UPDATE MAY 2014

It has been 7 years since our precast Sustainability Charter was launched, and 9 years since we published the first "Sustainability Matters". However, this year is different as it has been by far the biggest for the Charter scheme. All of our 67 member companies have now joined the scheme and have committed to the sustainability principles laid out in the Charter. Achieving the 2020 targets for waste reduction, carbon and energy reduction, and coverage by environmental and quality management systems will not be an easy challenge, especially for companies joining the scheme recently. Nevertheless, our member companies are determined to beat those targets and some of the work we are currently doing with the Sustainable Concrete Strategy, on the Precast Resource Efficiency Action Plan (REAP) and Environmental Product Declarations (EPD) will help us to evaluate and share best practice among members. A few of our KPIs last year were a little lower compared to 2012, though this is normal given the fact that an increased number of companies submitted annual data. I'm confident that all of our members will rise to the challenge and meet industry targets by 2020.

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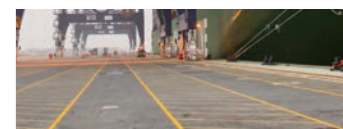
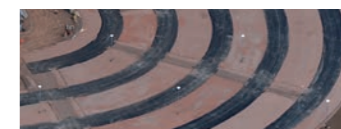
To date (May 2014), the following 40 companies have helped with KPI data in line with the Sustainability Charter requirements:

Acheson & Glover Precast | Aggregate Industries | Amber Precast | Barcon Systems | Bison Manufacturing | Brett Landscaping | Buchan Concrete Products | Cast Advanced Concrete | CEMEX Concrete UK | Charcon Construction Solutions | Cornish Concrete Products | CPM Group | Creagh Concrete Products | Decomo Concrete Ltd | E & JW Glendinning | Ebor Concretes | Forticrete | F P McCann | H&H UK | Hanson Building Products | Interfuse | Litecast | Longley Floors | Marshalls | Milton Precast | Morgan Sindall | Plasmor Concrete Products | Robeslee Concrete | Russell Roof Tiles | S Morris | Sandtoft Roof Tiles | Skene Concrete Products | Stanton Bonna | Sterling Services | Stowell Concrete | Techrete | Thorp Precast | Townscape Products | TT Concrete Products | WDL Concrete Products

These companies can use this data capture exercise and the targets set by British Precast to help demonstrate conformance to the Responsible Sourcing of Materials standard BES 6001 with regards to stakeholder engagement etc. Third party certification auditors are at liberty to make contact with British Precast to gain confirmation that annual KPI data has been supplied.

## KEY PERFORMANCE INDICATORS

These indicators provide an overview of the impact of the precast industry on society and environment, and how that impact is managed. The figures reported here relate to 2008 to 2013. Notes are included to indicate how performance has changed since 2008 and whether the 2020 targets are being achieved.



### COVERAGE

Data for 2013 has been provided by 40 companies related to 125 production units and approximately 11.58 million tonnes of product. There are believed to be in the region of 600 – 700 precast production units in the UK and the total production output for the industry in 2013 is estimated to be around 18M tonnes. It is estimated that data has been reported for approximately 64.3% of the year's production, compared with 48.4% in 2008. The following statistics have been calculated from the data supplied.

### PRODUCTIVITY

The companies reporting data in 2013 employed 7,818 full time equivalent staff. This was higher compared to 6,732, 5,785 and 6,585 in 2010, 2011 and 2012 respectively. But it was lower than in 2008 when around 8,681 full-time members of staff were employed.

1,482 tonnes of concrete was produced per employee in 2013, compared to 1,524 tonnes in 2012 and 1,589 tonnes in 2008.

### RESPECT FOR PEOPLE & THEIR LOCAL ENVIRONMENT

48 (38.29%) sites operated formal local liaison schemes during 2013, compared with 49 (40.5%) sites in 2012 and only eight in 2008.

### RESOURCE USE - WATER

76.5 litres of mains water were used per tonne of concrete produced in 2013, compared with 108.5, 155.8, 99.4, 87.1, and 84.5 litres of mains water in 2008, 2009, 2010, 2011 and 2012 respectively. Ground water use per tonne of concrete was around 39.5 litres compared to 69.5 litres in 2008.

Water from other sources such as harvesting and recycling is not included in these figures.

*Note: 9.5% reduction in mains water in 2013 compared to an industry target of 20% reduction by 2020. Target for mains water reduction is yet to be achieved.*

### RESOURCE USE - WASTE

26.5 kg of waste was produced per tonne of concrete in 2013, of which 4.5% was disposed of to landfill, 38% was recycled on site and 57.5% recycled off site. The overall waste figure is a third lower than the 39.7 kg of waste per tonne produced in 2008. Waste to landfill was no more than 1.18 kg waste/t in 2013, compared with 1.76 kg/t in 2012 and 5.6 kg/t in 2008.

*Note: Waste to landfill was reduced by 0.58 kg/t from 2012 to 2013. This is compared to a target of >1.26 kg/t reduction by 2020. Target for reduction of waste to landfill is yet to be achieved.*

### QUALITY & SATISFACTION

10.5M tonnes, or 91% of reported production (and 85.1% of sites covered), was covered by an ISO 9001 UKAS accredited quality management system or a recognised Manufacturer Quality Assurance Scheme in 2013, compared with 80%, 89.7%, 93.1%, 93.4% and 90.7% in 2008, 2009, 2010, 2011 and 2012 respectively.

### ENERGY, INCLUDING CLIMATE CHANGE

47.8 kWh of energy was used per tonne of concrete produced in 2013, of which 49.2% was gas, 22.3% was electricity and 21.2% was gas oil/ diesel. This is the equivalent of 12.73 kg CO<sub>2</sub> per tonne of concrete produced, compared with 14.22 kg CO<sub>2</sub>/t reported in 2012.

*Note: Energy usage per tonne was reduced by 4.8% in 2013 compared to a target of 10% reduction by 2020.*

*Note: CO<sub>2</sub> emissions per tonne were reduced by 10.5% in 2013 compared to a target of 20% reduction by 2020.*

*2020 Targets for energy usage/ CO<sub>2</sub> emission are yet to be achieved.*

### POLLUTION/EMISSIONS, INCLUDING TRANSPORT

84.5% of reported production (around 75.7% of all sites) was covered by an ISO 14001 or EMAS UKAS certified environmental management system in 2013. This is compared to 88.3% of reported production in 2012. However, tonnage covered (9.79 M tonnes) were considerably higher compared to 2012 (8.86 M tonnes).

*Note: 2020 target to increase coverage by Environmental Management Systems is yet to be achieved.*

No environmental incidents (convictions) were recorded or reported to external regulatory authorities in 2009, 2010, 2011, 2012 or 2013 compared with a single incident reported in 2008.

*Note: 2020 target to maintain convictions to "0" is being achieved.*

Most companies in 2013 supplied transport data. Results show that the average lorry carried 18.83 tonnes of precast product per delivery, compared with an average of 17.45 and 18.6 tonnes in 2012 and 2008 respectively. The average delivery distance in 2013 was 115.4 km, compared with 148 and 203 km reported in 2012 and 2008 respectively.

*Note: 2015 target to improve capture of data is being achieved.*

8.58 M tonnes, or 74.1% of reported production, were covered by a BES 6001 Responsible Sourcing system in 2013. This compares favourably with 69.6% and 39.8% of reported production in 2012 and 2009 respectively. The percentage of sites covered by BES 6001 is around 57.6% of the total number of sites included.

*The 2020 target for Responsible Sourcing is 95% of coverage and is yet to be achieved.*

### RESOURCE USE - MATERIALS

0.142 tonnes of cementitious materials were used per tonne of precast produced in 2013, roughly consisting of 8.3% fly ash, 3.6% ground granulated blast furnace slag, 4.5% quicklime and 3.4% limestone. Overall replacement of Portland cement was almost 25% compared to 23.9% in 2012 and 20.2% in 2008.

*Note: 2020 target of 25% alternative cement currently being achieved.*

Aggregates usage went down slightly in 2013, at 0.824 tonnes per tonne. 20.7% of aggregates used were of recycled or secondary origin.

*Note: 2020 target of 25% recycled aggregates is yet to be achieved.*

### HEALTH & SAFETY

6.94 M tonnes, or 60%, of reported production was covered by an OHSAS 18001 UKAS certified health & safety management system in 2013, which is higher compared with 2012 (56.7%) and 2008 25.4%.

A maximum of 7,917 employees in the industry were covered by the Concrete Targets 2015 scheme in 2013. The estimated RIDDOR rate was 720 per 100,000 employees compared with 792 in 2012, 1,143 in 2011, and 1,343 in 2008 and 3,920 in 2000, the scheme's baseline year.

### EMPLOYMENT POLICIES INCLUDING TRAINING

7,286 (or 93.2%) of reported employees were covered by formal training and development policies in 2013. An average of 15 hours of training was provided per employee, which is higher than the 11.9 hours reported in 2012. The percentage coverage is lower than the 98.5% in 2012 but the number of employees covered is over 1,000 higher. The percentage of employees covered by training remains higher than the 89.7% rate reported in 2008.