

Development on ICR, REAP, EPDs and other initiatives

British Precast continues to be the only construction product trade body to commit to the Infrastructure Carbon Review (ICR) pledge. Through the current ICR Carbon Practitioners' Network, we worked with a number of contractor, developer and public organisations in the assessment and development of the first carbon management standard for the construction industry: PAS 2080, The Infrastructure Carbon Management standard. We hope that the verification regime introduced under the new standard will enable us to build on our existing KPI initiative to offer a more comprehensive and recognised declaration programme which can link our own indicators with indicators used by the downstream of the supply chain. Our current Resource Efficiency Action Plan (REAP) programme also includes a formal route to talk and coordinate with contractor organisations, such as Build UK. A copy of our REAP can be found at British Precast website <http://www.britishprecast.org/Sustainability/The-Precast-REAP.aspx>

The precast sector continues to contribute to the concrete industry Sustainability Strategy and Roadmap to 2020. More information on the industry sustainability strategy can be found at www.sustainableconcrete.org.uk.

Later this year, we also expect a number of our precast products' Environmental Product Declarations (EPDs) to be finalised and published. British Precast have already joined the IBU EPD third party verification scheme.

British Precast also continues to contribute to a number of Building Information Modelling (BIM) committees enabling the implementation of BIM in industry and continues to seek means to develop industry generic BIM objects and product data templates.

(Picture right) Nick Gorst (British Precast) receiving the EPD certificate from Burkhardt Lehmann (IBU).



Published 2016. © British Precast

British Precast is the trade association for precast concrete manufacturers and members of the supply chain.

British Precast is part of the Mineral Products Association, the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries.

www.britishprecast.org

British Precast

The Old Rectory, Main Street, Glenfield,
Leicestershire LE3 8DG

Tel: 0116 232 5170

Email: info@britishprecast.org

Web: www.britishprecast.org

Sustainability Matters 2016

It has been nine years since the British Precast Sustainability Strategy was launched and eight years since we published the first of our KPI reports.

Since 2008, the precast sector has reduced manufacturing carbon emissions by 37%, mains water consumption by 14% and factory waste to landfill by well over 90%. All but one of our Sustainability 2012 Targets were achieved successfully and our member companies continue to make good progress towards the 2020 targets.

This year we saw a number of new companies joining British Precast and reporting their sustainability performance for the first time. We hope that this KPI exercise, along with the environmental auditing initiative introduced in 2013, will encourage more precast manufacturers to join British Precast and take part in its sector Sustainability Charter and KPI initiative.

This report coincides with progress reports on two wider programmes which complement this Cradle-to-Gate KPI initiative: The First Progress Report on the heavyweight materials Resource Efficiency Action Plans

(REAPs) initiative, and the "2 Years On" Infrastructure Carbon Review (ICR) progress report, will both address post-factory gate issues and indicators which are strongly linked and influenced by the work carried out by precast companies under the British Precast Sustainability Charter. A third initiative which is also linked to KPI's is the British Precast Environmental Product Declaration (EPD) programme. That initiative will offer us a more holistic Cradle-to-Grave view on the environmental impacts of manufacturing and use of precast concrete. The first of our generic Environmental Product Declarations (EPDs) is expected later this year. All three initiatives, along with the Charter and KPI reporting, will enable us to work more closely with contractors, developers, designers and upstream suppliers to deliver a more sustainable built environment.

Andrew Minson
Executive Director
British Precast

ANNUAL SUSTAINABILITY DATA COLLECTION

Data for 2015 cover 121 production units and approximately 12.28 million tonnes of product. Total production output for the industry in 2015 is estimated to be just under 20 million tonnes. It is estimated that data has been reported for approximately 61.6% of the year's production, compared with 75% coverage in 2014 and 51.2% in 2012 (baseline year). This percentage will go up as more member sites submit data over the next few months. The following statistics have been calculated from the data supplied to date.

Members of British Precast can use this data capture exercise and the targets set by the industry to help demonstrate conformance to the Responsible Sourcing of Materials standard BES 6001 with regards to stakeholder engagement, etc.

Third party certification auditors are welcome to contact British Precast to gain confirmation that annual KPI data has been supplied.

(Picture right) British Precast is part of the wider concrete industry Sustainable Concrete Forum which publishes an annual performance report. Data reported in this document is input into the wider industry report.



Key Performance Indicators

These indicators provide an overview of the impact of the precast sector on society and environment, and how that impact is managed. The figures reported here relate to the 2015 performance compared to the previous year (2014) and targets baseline year (2012). Notes are included to indicate whether the 2020 targets are being achieved.

PRODUCTIVITY

The companies reporting data employed 7,629 full-time equivalent staff in 2015. This was higher than 7,281 in 2014 and 6,585 in 2012. However it is still lower than the number employed in 2008 when we reported 8,681 full-time members of staff.

1,610 tonnes of concrete was produced per employee in 2015, compared to 1,960 tonnes per employee in 2014 and 1,524 tonnes per employee in 2012.

RESPECT FOR PEOPLE & THEIR LOCAL ENVIRONMENT

33 sites (27.3%) operated formal local liaison schemes during 2015. This is compared to 42 sites (32.05%) in 2014 and 49 sites (40.5%) in 2012.

RESOURCE USE - WATER

99.8 litres of mains water were used per tonne of precast produced in 2015. This is compared with 92.6 litres and 84.5 litres of mains water reported in 2014 and 2012 respectively. Ground water use per tonne of precast was around 46.8 litres compared to 41 and 46.8 litres/t in 2014 and 2012 respectively. Water from other sources such as harvesting and recycling is not included in these figures.

Note: The 2020 target for mains water is yet to be achieved.

RESOURCE USE - WASTE

39.26 kg of waste was produced per tonne of concrete in 2015, of which only 1.4% was disposed to landfill, 43.3% was recycled on site and 55.3% recycled off site. The overall waste figure is marginally lower than waste per tonne in 2012, but 17% higher than in 2014. Waste to landfill was no more than 0.56 kg per tonne in 2015, compared to 0.72 kg/t in 2014 and 1.76 kg/t in 2012.

Note: Waste to landfill has been reduced by 1.2 kg/t since 2012.

The sector is on track to achieve the 2020 target for waste to landfill.

QUALITY & SATISFACTION

11.21 million tonnes, or 91.3% of reported production (84.3% of sites) was covered by an ISO 9001 UKAS accredited quality management system. This is compared with 91% and 90% in 2014 and 2012 respectively.

Note: The sector is on track to achieve the 2020 targets for Quality Management Systems.

ENERGY, INCLUDING CLIMATE CHANGE

Factory energy consumption dropped slightly to 46.8 kWh per tonne of precast produced in 2015. This is compared to 48.6 kWh/t and 50.6k Wh/t in 2014 and 2012 respectively. 46% of the factories' energy was from gas, 21.6% was from electricity and 20.7% from gas oil/ diesel. Factory carbon emissions dropped slightly to 12.6 kg CO₂ per tonne, compared to 12.9 kg CO₂/t and 14.22 kg CO₂/t reported in 2014 and 2012 respectively. 49% of production is now covered by ISO 50001.

Note: CO₂ emissions and Energy usage per tonne were reduced by 11.4% and 7.5% respectively. The sector is on track to achieve the 2020 targets for energy usage and CO₂ emissions.

POLLUTION/EMISSIONS, INCLUDING TRANSPORT

90.9% of reported production tonnage (around 86.3% of all sites) was covered by an ISO 14001 or EMAS UKAS certified environmental management system in 2015. This is compared to 83.4% and 88.3% of reported production in 2014 and 2012 respectively.

Note: The sector is on track to achieve the 2020 target for Environmental Management Systems coverage.

For the seventh year, no environmental incidents (convictions) were recorded or reported to external regulatory authorities in 2015.

Only one single incident was reported in 2008.

Note: The 2020 target to maintain ZERO convictions is being achieved.

Most companies in 2015 supplied transport data. Results show that the average lorry carried 16.4 tonnes of precast product per delivery. This is compared with averages of 20.6 and 17.45 tonnes in 2014 and 2012 respectively. The average delivery distance in 2015 was 110 km.

Note: The 2015 target to improve the capture of transport data was successfully achieved

9.6 million tonnes, or 78.3% of reported production, were covered by BES 6001 certified Responsible Sourcing systems in 2015. This is the highest percentage reported by the scheme and compares favourably with 73.3% and 69.6% of reported production in 2014 and 2012 respectively. The percentage of sites covered by BES 6001 is around 62.6% of the total number of sites included.

Note: The sector is on track to achieve the 2020 target for Responsible Sourcing coverage.

RESOURCE USE - MATERIALS

0.161 tonnes of cementitious materials were used per tonne of precast produced in 2015, roughly consisting of 18.3% fly ash, 3.8% ground granulated blastfurnace slag and 4.2% limestone fines. Overall replacement of Portland cement was around 24.1% in 2015 compared to 16.6% and 23.9% in 2014 and 2012 respectively.

Note: The sector is on track to achieve the 2020 target for alternative cement replacement.

19% of aggregates used were of recycled or secondary origin compared to 22.3% and 20.3% in 2014 and 2012 respectively.

Note: The 2020 Target of 25% recycled aggregates is yet to be achieved.

HEALTH & SAFETY

7.96 million tonnes, or 64.8%, of reported production was covered by an OHSAS 18001 UKAS certified health & safety management system in 2015, which is slightly lower in percentage than 2012 (64.9%) but much higher than in 2014 (54.2%).

The LTIFR rate in 2015 was 7.24 per million hours compared to 6.06 in 2014, 9.8 in 2012.

EMPLOYMENT POLICIES INCLUDING TRAINING

99.98% of reported employees were covered by formal training and development policies in 2015. An average of 13.89 hours of training was provided per employee, which is higher than the 11.9 hours reported in baseline year 2012 but lower than 18.7 hrs per employee provided in 2014. The percentage coverage is higher than the 97% and 98.5% reported in 2014 and 2012 respectively.