HELPING TO KEEP BRITAIN’S CONSTRUCTION PROJECTS ON TRACK... NOW AND IN THE FUTURE

At CEMEX we believe in building and building a better future for everyone.
So we ensure that wherever and whenever possible our solutions help to balance the needs of the built environment with a commitment to the natural environment.
By delivering safe and sustainable solutions with first class customer service our customers and the communities in which we live can rely on CEMEX.
For more information visit www.cemex.co.uk

CEMENT • CONCRETE • AGGREGATES • MORTAR
SCREED • ASPHALT • BUILDING PRODUCTS • ADMIXTURES

HELPING TO BUILD A GREATER BRITAIN

Contents

President & Executive Director’s Message 1
Health & Safety 2
Sustainability 3
Environmental Product Declarations (EPDs) 4
Technical & Marketing 5
Mineral Products Association & The Concrete Centre 6

Best Practice Awards 2015
Health & Safety Award Shortlist 7
Sustainability Award Shortlist 8
Innovation Award Shortlist 9
Project Award Shortlist 10

Product Associations
APA/ASPA 11
BCA/CBA 12
CPSA/Interpave 13
PFF 14
Affiliates: MMA & Interlay 15
Membership & Benefits 16
Full & Associate Members 17
President’s Message

Working together to be more effective has been a theme running through the last 12 months, and we do this at many different levels. As British Precast, in our specialist product groups, as part of Mineral Products Association, as part of European bodies and in collaboration with partners, we have been effective in achieving our aims and delivering outputs because we are working together.

The past 12 months has seen the return of our Annual Dinner. It was held in May following PRECAST2014 with the special theme of our 50th Anniversary. In the coming year there is further evolution to a stand-alone event which will be held on June 24th 2015 and feature our annual awards which have attracted a 50% increase in entries. The dinner gives the opportunity to celebrate our industry both within the membership and beyond.

We returned to Ecobuild this year with a Village. In collaboration with The Concrete Centre, the Concrete and Masonry Village included a seminar theatre, networking zone as well as company and product group stands. There was collaboration between 3 of our product groups – aircrete, concrete blocks and flooring, and the Mortar Industry Association in delivering a very popular High Performance Housing exhibit that included live demonstrations and built details.

We are addressing the new issues of Building Information Modelling (BIM) and Environmental Product Declarations (EPDs) with the MPA to avoid duplication and contradiction in output, and involving product groups to ensure that specific product requirements are taken into account. Our members have been consistent in wanting the trade association to take a lead on these topics. More details on both these topics are provided later in this annual review.

This review also includes details of a new product group, the Architectural and Structural Precast Association, and a new Scottish working group of the Concrete Block Association. In addition, our overseas links and partner bodies are all examples of working together for collective benefit.

Finally I can report that I have just signed, on behalf of Council and all members, the 2nd year of our service level agreement with the Mineral Products Association (MPA), whereby it provides a range of administrative, management and technical services. As your President I sit on the MPA Board and on the MPA Concrete Steering Group and can influence on your behalf the direction of activity and policy. Staff have transferred to MPA to ensure current working relationships deepen and strengthen. This evolution of the concrete industry enables the precast sector to strengthen its influence within the industry and speak with one clear, powerful voice.

Executive Director’s Message

British Precast technical work relates to protecting the interests of the precast sector in relation to standards for constituent materials, and, working with MPA, also covers end-use design, concrete performance and sustainability. Product specific technical activity, particularly standards, is more efficiently done by the relevant product association.

The British Precast Raising the Bar initiative is a means for us and members to demonstrate commitment and achievements particularly in relation to both sustainability and health and safety. It is the umbrella for our sustainability charter, our health and safety charter and specific codes of practice.

In 2014 we implemented mandatory sustainability reporting alongside our already compulsory health and safety reporting. Whilst there are specific health and safety matters at product level, the primary activity is most efficiently done at British Precast level where we can represent issues relating to factory manufacture. Similarly the collection of sustainability production data is carried out at British Precast level, and the precast sectoral performance communicated in our publication Sustainability Matters.

British Precast is now part of a wider MPA family, which can champion the benefits of concrete and our products to the wider industry and government. Whilst there is a role for product specific marketing and promotion of precast concrete and masonry in general, most British Precast messages to government, clients and designers are the same for all concrete and concrete masonry solutions and are therefore best led at a broader level. Broader still is promotion of construction, which benefits all construction products. For this activity we let the CBI and Construction Products Association (CPA) lead. For example, the latter provides construction sector market forecasts that, through our membership of CPA, are available to all of our members.

In the last 12 months we have worked more closely with the MPA and our product groups have strengthened with new membership. Communication between all of the groups is key to ensuring consistency of message, lack of duplication and ensuring the right place for primary action. This annual review is part of this communication.
CHARGE

British Precast continues to work with and support the HSE Charge program. Charge is a tripartite body with representatives from industry, trade unions and HSE. It represents the ceramics, heavy clay, refractories, glass and glazing, cement and concrete industries and provides a forum for identifying priorities and sharing good practice in common health and safety issues.

BUILDING PRODUCTS DELIVERY WORKING GROUP (BPDWG)

Work and association continues with the BPDWG to improve the safety and security of loads. The BPDWG shares good practice across the sector with the intention to make loading points, delivery locations and the highways a safer place to operate for all concerned. BPDWG will develop specific guidance based on the DVSA publication of March 2015. The DVSA publication covers responsibility, consequences and enforcement, as well as giving practical advice for different vehicles and loads.

The BPDWG will provide more detail for construction products than in the DVSA guidance whilst ensuring contradictions are avoided.

SAFER BY COMPETENCE SCHEME

A primary means of delivering improved safety is by having a competent workforce. A Framework is now in place to ensure that a competent workforce can be achieved as shown in the table below.

PRESTRESSING CODE OF PRACTICE

The Code of Practice was released in November 2014 with the support of the HSE. All members of the PFF have signed up to the code and to the implementation of two annual, independent audits of each of their prestressing operations, demonstrating their commitment to providing safe working environments.

British Precast Council request all members who have any prestressing operations to be audited to the new prestressing Code of Practice.

This Code is part of a suite of codes developed by British Precast to ensure that the highest standards of safety can be achieved.

SAFER BY COMPETENCE FRAMEWORK

<table>
<thead>
<tr>
<th>STATUS</th>
<th>OPERATIONAL EMPLOYMENT (EXCLUDING OFFICE-BASED)</th>
<th>QUALIFICATIONS &amp; LEVELS</th>
<th>NEED TO MEET NATIONAL OCCUPATIONAL STANDARD(S) RELEVANT TO JOB FUNCTION</th>
<th>DEADLINES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basis</td>
<td>Level</td>
<td>NVQ QCF ACOP CPD</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Management</td>
<td>Level 4</td>
<td>Diploma Level 4</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>British Precast Endorsed</td>
<td>30 June 2015</td>
</tr>
<tr>
<td></td>
<td>Supervisory</td>
<td>Level 3</td>
<td>Certificate Level 3</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>British Precast Endorsed</td>
<td>30 June 2016</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>Level 3</td>
<td>Diploma Level 3</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>British Precast Endorsed</td>
<td>31 December 2016</td>
</tr>
<tr>
<td></td>
<td>Process Operative</td>
<td>Level 2</td>
<td>Cert/Dip Level 2</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Site File</td>
<td>31 December 2017</td>
</tr>
<tr>
<td></td>
<td>FLT Operative</td>
<td></td>
<td>AITT or RTITB Accredited</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Periodic Re-test</td>
<td>Immediate</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31 December 2017</td>
</tr>
<tr>
<td></td>
<td>Contractors &amp; Sub-Contractors (All Trades)</td>
<td></td>
<td>Appropriate Site/Company Induction plus Contractors Safety Passport</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31 December 2018</td>
</tr>
</tbody>
</table>
Sustainability and Environmental Performance

**ACHIEVEMENTS**

In 2014 a combined production of 14 million tonnes across the membership was audited and contributed to the KPI data collection.

Last year, we reported for the first time on KPI progress based on our new 2020 targets. Our members were able to reduce water consumption by 9.5% compared to the previous year. Overall factory waste went down by a third compared to 2012, of which only 1.18kg per tonne of production was sent to landfill. Direct carbon emissions from precast factories also went down to 12kg CO2 per tonne in 2013 compared to 14kg CO2/t the previous year. Overall reduction in energy consumption was down by almost 5% compared to the previous year. British Precast is the first construction product trade association to commit to the Infrastructure Carbon Review pledge. We signed up to the Infrastructure Carbon Review with a pledge to drive down our carbon emissions by 20%, our energy consumption by 10%, and our overall factory waste by 10% (2012 baseline).

**SUSTAINABILITY STRATEGY**

British Precast’s Sustainability Charter is part of a wider initiative run by the Sustainable Concrete Forum. The Forum was set up by the UK concrete industry 8 years ago to manage and co-ordinate efforts carried out by 10 different sub-sectors across the supply chain of concrete.

The 7th Concrete Industry Sustainability Performance Report was launched at the Concrete & Masonry Pavilion at Ecobuild in March, which was hosted by British Precast and The Concrete Centre. The Report shows overall improvement in a number of indicators, including Responsible Sourcing certification (to BES 6001), use of recycled/secondary aggregates, direct CO2 emissions, waste minimisation, replacement of fossil fuels, health & safety and local community liaison.

The vision is for the UK concrete industry to be recognised as a leader in sustainable construction by taking a dynamic role in delivering a sustainable, zero carbon built environment in a socially, environmentally and economically responsible manner.
Environmental Product Declarations (EPDs)

Environmental Product Declarations (EPDs) are similar to carbon footprints, but include many environmental impacts and cover the whole life cycle of a product. In life cycle assessment (LCA) an EPD provides a standardized way of quantifying the embodied environmental impacts of a product or system.

The information declared includes data on the impacts of acquiring raw materials, energy use and efficiency, content of materials and chemical substances, emissions to air, soil and water and waste generation. Currently EPDs are voluntary, being driven by market demand, but may well become mandatory under the Construction Products Regulation (CPR). In the short-term this leads to marketing opportunities. In the medium-term designers, contractors and clients will increasingly demand EPDs.

EPDs can be generic, company-specific, plant-specific or even brand-specific depending on market/specifier expectations and cost-benefit considerations. They are business-to-business communications and are not consumer-oriented. Demand for EPDs will increase, driven initially by Government procurement requirements on public sector projects which use Building Information Modelling (BIM). BIM should ensure that building-level environmental impacts are quantified on a common/fair basis and will influence the final choice of materials to be used in construction projects. It is likely that such projects will require generic EPDs, as input to BIM, from 2017.

Life cycle assessment (LCA)

LCA is a technique used to assess environmental impacts associated with all stages of a product’s life, generally from-cradle-to-grave (but for some intermediate products, from cradle-to-gate) i.e. from raw materials extraction through materials processing, manufacture, distribution, use, repair and maintenance, and disposal or recycling. An EPD provides data on these impacts in a standardized way, allowing a fair comparison of products whilst minimizing a narrow/distorted perspective on environmental issues.

Concrete EPDs

British Precast and BRMCA are collaborating on an EPD project overseen by a committee chaired by David Morrell (Marshalls). PE International has been commissioned to deliver nine concrete product generic EPDs and a calculator and benchmarking tool. This phase 1 project will be completed in 2015. The phase 2 project is the use of the calculator tool by MPA on behalf of product groups to generate EPDs for further concrete products. Phase 3 is the use of the calculator tool by MPA to generate company-specific EPDs at commercially competitive rates with MPA membership discounts.

<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUNDING</td>
<td>British Precast &amp; BRMCA</td>
<td>Product Groups of British Precast &amp; BRMCA</td>
</tr>
<tr>
<td>DELIVERY AGENT</td>
<td>PE International</td>
<td>MPA</td>
</tr>
<tr>
<td>TIMEFRAME</td>
<td>2015</td>
<td>Q1 2016</td>
</tr>
<tr>
<td>OUTPUT</td>
<td>Generic verified Product EPDs for: 1. Ready mixed concrete 2. Aggregate blocks 3. Aerated blocks 4. Paving blocks 5. Concrete pipes 6. Precast floors 7. Box culverts 8. Architectural &amp; structural concrete 9. Mortar</td>
<td>EPDs for more specific products e.g. a 400 mm deep precast floor unit and a 200m deep floor unit. Product groups will choose if these are to be verified or not depending on what the market might demand.</td>
</tr>
</tbody>
</table>
Technical

As the trade association representing producers, British Precast is in the best position to conduct technical work in collaboration with, or on behalf of, its members. This work mainly revolves around British and European standards and building regulations - all of which British Precast is a stakeholder in by mandate. Specific technical work on particular products is addressed by their niche associations, whereas overarching issues for all precast production, such as impact of standards for constituent materials, are dealt with by British Precast.

Our links with BBIM, and the work through British Standards shadow committees fed into European committees, enabling us to influence changes to European standards.

Two further aspects of technical work are responding to queries and developing an understanding of competitor offerings to enable appropriate responses such as lobbying government, influencing standards committees and marketing. Despite tight resources, British Precast is effectively conducting such work. This is helped by ensuring our work dovetails with that of The Concrete Centre on concrete performance and design, with Mineral Products Association on constituent materials and with Construction Products Association on building regulations.

High-impact topics requiring significant investment of time in the past year have included Environmental Product Declarations Standards (EPDs), Responsible Sourcing Standards and Building Information Modelling (BIM).

Standards for EPDs will heavily impact on the future environmental competitiveness of our products, and will require significant effort and input. Responsible Sourcing Standards are being revised and British Precast has worked hard to ensure that their positive benefit to our sector over recent years is maintained throughout the revision process. Understanding the implications of BIM on behalf of members and determining appropriate collective action has been a feature of the past 12 months. For topics such as energy performance of buildings, extensive work has been conducted at both product-specific level (such as guidance on product U-values and thermal bridging details) and at an overarching concrete level by The Concrete Centre.

Technical input results in changes, which need to be communicated to members and their direct and indirect customers. Seminars and briefing notes for members ensure technical changes can be incorporated into businesses in the most cost-effective manner. Investment of time, energy and money in technical guidance and technical support for contractors, clients and designers is worthwhile, as it facilitates understanding of how to use and specify precast products.

Our appreciation is extended to all who have helped with the technical work in the past year, and thanks are given in anticipation of your future contributions.

Creativity in Concrete Award 2014

British Precast present the Creativity in Concrete Award each year to an individual or an organisation who has demonstrated originality in the use of concrete. In 2014, the Award was presented to William Mitchell, concrete sculptor and innovator.

William has been recognised globally for his distinct works of art which incorporate colour using various types of concrete. With a career spanning decades, William Mitchell is reputed to have the largest and most protected collection of concrete artwork in the world. He has also published an autobiography, ‘Self Portrait, The Eyes Within’. It was therefore with great pleasure, that British Precast was able to present the 2014 Creativity in Concrete Award to William at the Concrete Society Awards on 29 October at The Grosvenor Hotel, London.

This Award, and the prestigious Best Practice Awards, generate fantastic press coverage which of course further benefits the precast concrete industry.

Marketing

A key aim for British Precast is to positively raise the profile of the precast industry and its members. British Precast has had a very busy year with many activities taking place.

Our annual PRECAST exhibition is firmly established and takes place in May. This full day event gives suppliers to the industry a fantastic chance to showcase their products and services to manufacturers. The day includes live demonstrations and seminars on relevant, current topics.

Our members come together annually at our black-tie Dinner to celebrate a year of success. The evening includes the presentation of the prestigious industry Best Practice Awards. Golf Day is also a popular event open to all members.

Ecobuild 2015 was a great success. The Concrete and Masonry Pavilion provided visitors with guidance and expertise. The High Performance Housing stand included live demonstrations and construction details which drew a great crowd throughout the 3 days of the exhibition. Plans are already underway for Ecobuild 2016!

Digital communication increases its role in spreading the message for ourselves and our members. The British Precast website is currently being redesigned with the intention of providing a much improved web presence. Social media use is consistently on the rise and our Twitter account (@British_Precast) enables us to connect with notable figures in industry and the public.

Press features and articles are placed in influential publications on a regular basis, often used alongside other campaign activities as and when necessary.
Mineral Products Association (MPA)

The last year has seen the relationship between British Precast and MPA both move up a gear and deepen with the transfer of British Precast staff to MPA as part of an integrated management model under the Service Level Agreement. The benefits of presenting the combined sectors as ‘one’ with common branding, messaging and an aligned approach on the big ticket issues of growth, health & safety, taxation and regulation, technical standards, sustainability and protecting indigenous production capacity are being realised as synergies develop.

MPA leads not just the mineral products sector but the UK extraction sector, and our dialogue and close and effective working with Government is reinforced by having ‘one voice’. The key departments i.e. Treasury, BIS, DEFRA, DfT want and need a simpler interface with all sectors so that they can channel the right messages and policy advice to Ministers.

The dialogue between MPA and middle ranking and senior civil servants is where the ‘heavy lifting’ is done irrespective of which political party/parties form the Government. This is where key and enduring relationships exist, which are vital if the interests of the sector are to be effectively advocated and delivered. Equally, dialogue with the key agencies of Government, e.g. the HSE, Environment Agency and others such as Highways, Natural and Heritage England, is crucial if members’ interests are to be protected and promoted. These are important organisations that have a direct impact on our ‘licence to operate’ and are also influential thought leaders nationally and internationally.

The devolved administrations and their sister agencies in Wales, Scotland and Northern Ireland are growing in significance with increasing autonomy on many policy issues, accompanied by separately evolving interpretations on how best to deliver sustainable development. Not forgetting the critical role County and District Councils and, increasingly, the LEPs can play. For most operators it is local policy that can really matter particularly in a ‘plan led’ system.

Consequently we must ensure that we are able to deliver strong, clear, aligned and integrated strategic messages which are also sensitive to local needs and to our many stakeholders if we are to avoid ‘hydra headed’ relationships which would be ineffective.

Our sector is essential to the economy. The extraction of minerals to produce products that serve our markets at around a million tonnes per working day, particularly in construction where we are the biggest supplier, cannot and should be not be ignored. Our sector is a great one. It is local, but regionally and nationally significant. It enhances both the built and the natural environment. It is innovative, professional and forward looking. That is why, by working closer together, we are best placed to develop an exciting vision of our future for the next 5 and 10 years.

The progress we have made in the last year is encouraging, but there is far more that we can aspire to. With so much at stake over the next few years for our economy and how the UK will evolve it is important that we are united for what we stand for, the role we play and what we need to achieve it.

The Concrete Centre

The Concrete Centre provides material, design and construction guidance on the end-use of concrete and masonry and influences the design environment in which this guidance is used.

The primary role of The Concrete Centre is to enable concrete and masonry to be chosen by designers and specifiers. This includes representing the industry in the development of design codes and standards, such as Eurocode 2, and translating these changes into the latest best practice and training for designers.

The Concrete Centre guidance delivers the ‘why’ and ‘how’ of using concrete and masonry and this technical expertise has credibility across the industry. By offering expert advice on the full range of concrete and masonry solutions available, The Concrete Centre can positively influence specifiers to choose an optimum concrete and masonry solution for their project over alternative materials.

The Concrete Centre’s vision is to make concrete and masonry the material of choice and protect and increase the use of concrete and masonry over alternative materials.

To achieve this, The Concrete Centre uses its technical capability and marketing capacity to influence stakeholders making material choices such as engineers, architects, repeat clients, contractors and developers. In addition, The Concrete Centre works with organisations and stakeholders that influence material choice including non-government bodies such as BRE and Zero Carbon Hub.

While individual companies may lack the capability and resources to influence material choice across this spectrum of professions, The Concrete Centre has the expertise and exist on behalf of, and for the benefit of, all in the concrete sector and the wider construction industry. During the last year, The Concrete Centre had thousands of face-to-face contacts with specifiers, offering expert advice in relation to their current and forthcoming projects.

The Concrete Centre does not work in isolation and, in the last year, collaborations have deepened. Most recently, collaborating with British Precast to deliver the inaugural Concrete and Masonry Pavilion at Ecobuild 2015. Exhibitors within the Pavilion included the Aircrete Products Association, Concrete Block Association, Mortar Industry Association, Precast Flooring Federation, Interpave and UK CARES, among others. The Concrete Centre seminar theatre attracted large audiences of specifiers, contractors and clients to the pavilion, as well as hosting key industry events, such as the launch of the Concrete Industry Sustainability Performance Report, published by The Concrete Centre on behalf of the Sustainable Concrete Forum.
This was a partnership project that addressed a long-standing high risk issue which effects both worker and public safety. Two guides – Voided Loads and Non-Voided Loads were produced and launched. All haulage companies and drivers have to be audited and trained drivers are awarded a Passport before being able to work on AI sites. Risks to road users have thus been reduced based on effective partnership working.

A standardised approach was implemented across all Brett company sites to effectively manage and control tipping operations. It was robustly supported by clear, unambiguous signage and guidance.

The opportunity was taken by Brett to address a number of hazards and improve stockyard efficiency. This was an effective project that delivered a number of safety improvements which reduced risks to users of the site.

‘Health and safety is everybody’s responsibility.’ This message was given in the DVD by Andrew Dix, the managing director of Charcon. Hard hitting images reinforced the clear, strong verbal message given.

Longley Concrete addressed real and significant risks of vehicle pedestrian interaction. Carefully considered, but simple measures segregate pedestrians from vehicles and have reduced risks and improved control over contractors, collect customers and visitors.

Following a safer by design policy, Marshalls have upgraded the vehicle fleet with respect to vehicle access/egress and load security. A significant reduction in incidents has been achieved.

Stanton Bonna has developed an innovative solution which removes control from operatives to ensure optimum noise reduction during all operation times. The system also includes a control system which monitors and optimises the operational programme.
1. **IMPROVED CURING HELPING TO REDUCE PRODUCTION WASTE - BRETT LANDSCAPING & BUILDING PRODUCTS**

Amendments to the LPG curing chambers at the BLBP Pocklington site led to significant reduction in de-moulding waste of wet cast concrete slabs. Scrapage rates went down from 10% to 3%, saving 3.5 tonnes of waste per week, or 168 tpa. This equates to 18 tonnes of CO2 emissions saved.

2. **RAIL FREIGHTING OF PFA - HANSON BUILDING PRODUCTS**

Hanson Thermalite realised that there would be a significant increase in transport impacts caused by the change of source of primary raw PFA from the local Didcot power station to Drax power station in Yorkshire. The solution was to redirect the delivery of some 167,000t of PFA from road transport to rail and as a result eliminated approximately 2 million road miles, which equates to around 1700 tonnes of CO2.

3. **ENERGY MANAGEMENT SYSTEM & REDUCTION - H+H**

H+H developed a formal energy management system, becoming one of the first to be certified to EN 16001, following certification to ISO 50001. H+H developed a range of policies and procedures to manage energy consumption and developed Environment & Energy Improvement Teams at each site to drive change. H+H supported the teams with £1.1M capital investment on energy reduction related projects, leading to 20% reduction in energy usage per m3 of product in 2014 from 2009 levels.

4. **INCREASED HARVESTING AND BETTER USE OF RAINWATER - LONGLEY CONCRETE**

Longley Concrete expanded their water harvesting system to capture more water from their yard and roof areas and improve the feed to the batching plant to use the harvested water in washdown and the mixer trucks. The savings are approximately 1000m3 per annum offering possible payback in 6 years.

5. **MONO – COMPRESSED AIR ENERGY REDUCTION - MARSHALLS**

A programme of compressed air pressure reduction was set up by Marshalls’ St Ives site and introduced in 2014 with the aim of reducing cost, saving energy and improving on compressor efficiency. A smaller compressor was installed and savings expected can reach up to £4K per annum. Savings may reach 30%.
In early 2014, precast units by Hanson got Dawlish back on track after damage to almost half a kilometre of sea wall and railway. The innovation lay in the units meeting the required task whilst being formed from adapted existing moulds. 96 L-shaped panels, up to 3.25m high, were used to form a channel to defend against the sea on one side and retain the land on the other. A second phase of the rebuilding works required 152 profiled precast sea wall units weighing 15 tonnes each.

**DAWLISH EMERGENCY REMEDIATION - HANSON BUILDING PRODUCTS**

Hanson identified a need for all parties to be proactively involved to ensure all product manufactured can be Handled, Loaded and Transported to site safely. Hanson’s distribution partner provided technical support and assistance to develop a Hanson product specific training programme which provides all parties with best practice guidance.

**WORK PLACE ORGANISATIONAL IMPROVEMENT - AGGREGATE INDUSTRIES**

Across all 19 sites of Aggregates Industries Concrete Products division, 5S organisational methods have been implemented. The 5S system is Sort, Set-In-Order, Shine, Standardize, Sustain. The result of implementation of this 5S system has been a working environment that is productive, clutter free and orderly. This has led to improved safety, quality and efficiency.

**“LOADING SAFELY TOGETHER” INITIATIVE - HANSON BUILDING PRODUCTS**

**HAND/ARM VIBRATION MONITORING - HAVSCO**

Current instrumentation for measuring Personal Exposure Levels of Hand-Arm Vibration (HAV) requires the sensor to be mounted on an adapter or directly on a vibrating tool, with the power and output signal transmitted to the data collection device via a cable. HAVSco’s HAVSense integrates a sensor and a miniature data logger into a simple device with no cables that fits under the operative’s glove. HAVSense technology directly measures the individual’s HAV dosage throughout the work period.
Bison were appointed early in this project enabling input at the first design stages to ensure the benefits of precast structure and cladding could be fully taken into account by the architect. The precast was delivered with a high quality of finish to minimize follow on trades, and in communal areas the precast columns are fully exposed.

Buchan Concrete designed, manufactured and erected the precast concrete structure, which included acid etched composite panels. To achieve a consistent colour for all external panels, a blend of coarse and fine aggregates was sourced from a single quarry which achieved exceptional results. Buchan’s off-site crosswall construction ensured installation of frame, cladding and bathroom pods was achieved in just 22 weeks.

CCP has supplied stunning white acid etched dolomite elements for the high profile main entrance for the new IStructE International HQ. The tight tolerances to accommodate hidden fixings were achieved and the overall impact has been widely praised.

Creagh used perimeter spandrels that provide slab support and vehicle restraint, and are also the white concrete cladding that provides a smooth, uninterrupted feature band along the façades. Columns were cast in three storey lengths, with projecting corbels to support internal inverted T beams and the edge spandrels. Creagh have delivered to the client an efficient and enduring solution with aesthetic appeal.

Sterling Services was commissioned to supply and install Travertine natural stone faced elements: precast concrete columns, art work wall, architectural precast concrete exterior cladding and a core wall. The 17 tonne core wall stone faced panels required installation with only a 4mm joint at high level. This was successfully achieved and is also believed to be the largest stone clad panels used to date in the UK.

Thorpe Precast designed, manufactured, supplied and erected white Portland architectural precast concrete cladding featuring slightly exposed natural limestone aggregates for 11 storey building. 3D modelling played a vital part to ensure co-ordination between fixings in the structural frame and cast in items in the cladding, and for sequencing specific site activities during the work period.
Product Associations

British Precast members are eligible to join relevant product associations which provide a forum to address issues for a product or range of products. Their activities over the last year are reviewed in the following pages.

AIRCRETE PRODUCTS ASSOCIATION (APA)

The Aircrete Products Association (APA) represents the five manufacturers of aircrete blocks who serve the majority of the market: H+H Celcon, Hanson Building Products, Quinn Building Products, Thomas Armstrong, and in 2014 the APA was pleased to welcome new member Tarmac Building Products into the Association.

APA operates through three committees; Principals, Marketing and Technical which all hold regional meetings throughout the year. Together, they work to promote the use of aircrete and ensure that the sector is at the forefront and leading technical developments. The Association was highly proactive with a number of projects taking place during 2014. One of the focal activities for the APA Technical Committee was the NHBC Foundation Part L 2013 ‘Where to Start’ Guide, which was published in November 2014. Work is now well underway on the Wales 2014 Guide.

These Guides highlight the importance of thermal bridging details and recognise aircrete Constructive Details as an example of high performance construction which helps customers to gain significant benefits and cost savings.

The Technical Committee has a strong influential presence in Europe; APA representatives are part of the European Autoclaved Aerated Concrete Association (EAACA), through which Eurocodes, directives and regulations from the EU are reviewed and updated regularly. APA has been significantly involved in the formation of the European Masonry Alliance. These activities enable the APA to ensure that the interests of UK aircrete manufacturers are represented and supported both in the UK and worldwide. APA was part of The Concrete and Masonry Pavilion at Ecobuild 2015, showcasing construction wall details built using aircrete blocks. Participation in events like this and the promotion of technical projects ensures that developments by the APA are marketed effectively to the construction industry and wider public.

The APA website is regularly updated with the latest news and technical information and includes datasheets available for visitors to download, covering performance, applications and systems of aircrete use. The APA Marketing Committee works closely with the trade press to ensure developments such as demands in housing and new publications are highlighted in the wider industry.

ARCHITECTURAL & STRUCTURAL PRECAST ASSOCIATION (ASPA)

ASPA was officially formed in 2014, bringing together the two former separate associations representing structural precast and architectural cladding. The 12 founder member companies have an impressive track record of projects delivering the spectrum of products from functional elements to decorative architectural panels that require no site finishes.

The last 12 months saw significant activity by the new Association. A new website for ASPA has been launched and the first issue of its new Newsletter ASPANEWS was issued earlier this year with case studies from all member companies. ASPA has now developed into one of the most active product associations within British Precast. This year, 5 of the 6 entries submitted for the Project Best Practice Award were from ASPA members.

ASPA continues to work on a number of projects initiated late last year. Much progress has been made with the Code of Practice (CoP) for the Safe Installation of Structural and Architectural Precast. This crucial health and safety document merges two earlier Codes of Practice originally developed by the ceased SPA and ACA in the late 1990s and early 2000s. The new Code updates the content of these two documents and adds further advice on a range of issues such as temporary works and the safe lifting of precast elements.

ASPA has also started work on updating the main architectural cladding standard BS 8297, last revised in 1998. A working group was set up earlier this year under BSI standard committee B524 to identify areas in need of updating and revising in the standard. The link to existing European standards, such as Eurocodes, EN 14992 and CEN/TR 15739 is also being addressed.

ASPA also continues to work with The Concrete Centre on a new guide on the specification of precast concrete cladding. This Guide will offer information complementary to the new BS 8297 and will address aspects such as concrete finishing and appearance. The document will combine information on cladding specification from a number of sources (including NBS, NSCS, etc.).

Work is already underway on new Environmental Product Declarations (EPDs) and carbon footprint factsheets covering products made by members of ASPA. Members of the Association are also active in the work led by British Precast on Building Information Modelling (BIM).
**CONCRETE BLOCK ASSOCIATION (CBA)**

CBA represents the vast majority of all block manufacturers in the UK. Many new full and associate members have joined over the past year, and the Association continues to proactively seek new members.

The CBA Technical Committee has undertaken a number of projects this year to benefit members; for example, publishing an extensive number of Linear Thermal Bridging Details which are to be linked directly with members’ proprietary products. The Committee has also been working on product standards throughout the year, and drafting Product Category Rules (PCR) for masonry products in preparation for Environmental Product Declarations (EPDs). The Committee is represented on numerous industry bodies, to ensure the interests of its members are effectively supported in the UK, Europe and further afield.

CBA members receive the Newsround; a bi-monthly newsletter with updates on its latest activities, and statistics on material prices, housing starts, concrete block sales and other areas. Also included are reports from the Technical Committee, the Modern Masonry Alliance and British Precast to keep members informed on all developments. CBA publishes a promotional magazine, CBA Update, annually for members to use internally and externally. The CBA website - soon to be relaunched - is regularly updated with news, datasheets and industry regulation information, while a members-only online portal gives access to exclusive documents.

CBA was at Ecobuild 2015 as part of the High Performance Housing stand in the Concrete and Masonry Pavilion. The stand highlighted that masonry can be the basis of housing that meets and exceeds modern standards. As part of this, thermal bridging was explained with a full scale installation, with delegates directed to the CBA details available on the CBA and LABC website.

In the last year the Scotland Working Group has been formed with 8 producer members. The ambition is to address the lowest market share of masonry in housing in the UK. CBA in Scotland and in general plans to work rigorously in all areas, from marketing and technical input to political lobbying, to ensure the industry continues to develop and grow.

**BOX CULVERT ASSOCIATION (BCA)**

BCA has three member companies supplying a sizeable portion of the EN 14844 compliant box culvert market in the UK - Hanson Building Products, Milton Precast and FP McCann.

The introduction of the Eurocodes dominated BCA agenda over 2014. BCA produced two Guidance documents addressing how the new Eurocodes, along with a wide range of national specification standards and annexes, should be used in the design of concrete box culverts. The two documents are now available online at BCA’s newly redesigned website www.boxculvert.org.uk.

BCA has also launched a Carbon Footprinting factsheet last year demonstrating how the carbon footprint of UK manufactured box culverts does not exceed 105 kg CO2/tonne of concrete. Another factsheet is planned this year with further information on how box culverts may compare with other alternative solutions made up of lightweight material.

BCA’s main 2015 challenges include further marketing activity to highlight the versatility and flexibility of box culverts and how they can be used to offer improved sustainable drainage systems and reduced environmental impact. BCA also have a responsibility to educate the civil sector about the design requirements of box culverts in accordance with Eurocodes and how a developer and or a specifier can tell that his design and products comply with all standards and regulations (including CE Marking requirements). The Association will agree on the most appropriate means to achieve these objectives in due course.
CONCRETE PIPELINE SYSTEMS ASSOCIATION (CPSA)

CPSA consolidated key messages throughout 2014 that underpin a number of competitive advantages over alternative materials. These include structural/bedding design efficiencies, embodied carbon savings, proven long service life, sustainable drainage (SuDS) solutions and safe handling & installation.

Communication platforms have included trade press editorials and advertising, conference papers, published technical papers, CPD presentations, sponsorships, university lectures, email newsletters, factsheet publications, client meeting and presentations, website updates and social media broadcasting.

Essential work on British and European Standards continues and includes the publication of BS 5911-3:2010+A1:2014; Concrete Pipes and Ancillary Concrete Products; Specification for unreinforced and reinforced concrete manholes and soakaways (complementary to BS EN 1917:2002). The updated Standard includes a new section on precast manhole bases and revised test load requirements aligned with Eurocodes. There is also a new Appendix to help users establish the maximum installation depth of square/rectangular units which may not be as deep as the limit for equivalent circular units with corresponding strength classes.

New legislation on SuDS is driving a combined threat and opportunity for CPSA members. A balanced approach has been adopted to deal with a declining market for storm water sewers and increased use of proprietary SuDS components. In preparation for a growing SuDS market, CPSA has committed to sponsorship arrangements with CIRIA as a member of the Project Steering Groups for the SuDS Manual update and the Susdrain.org initiative. CPSA also continues to support the annual Water Industry Achievement Awards and in 2015 is sponsoring the Sustainable Drainage and Flood Management award category.

New market developments in the water industry include the introduction of the “totex” concept through the industry regulator Ofwat. This aims to refocus businesses away from capital cost and to concentrate on outcomes benefiting the customer and the delivery of long term operational cost efficiencies rather than outputs based on asset creation. It will take time to bed-in but totex should ultimately reward clients that develop assets that achieve a long service life with minimal intervention and in this context concrete should be well placed.

BIM is also emerging as an important new advancement and CPSA will become directly involved through BIM4Water as the government’s roll-out plan develops.

Health & Safety remains a major factor for the concrete pipeline industry and the award-winning concrete pipe lifter has been developed to include a Type 2 device for safe and fast offloading and installation of larger pipes DN1350-DN2000.

INTERPAVE

Interpave is the trade association for the precast concrete paving industry in the UK, representing the interests of its members who produce around 85% of the UK’s precast concrete paving products. This includes concrete block paving, paving flags, kerbs, accessories and ancillary products used in the construction of hard landscape surfacing.

Many publications continue to be produced by Interpave in support of concrete block permeable paving, governmental guidelines and changes to legislation aimed at using Sustainable Drainage Systems (SuDS) to help prevent flooding - particularly important in view of ever-increasing flooding events across the country. With important developments in legislation and planning requirements scheduled for 2015, Interpave is working hard to provide the necessary changes to design and installation standards, as well as technical support, to ensure that the paving installation industry is well prepared to meet these changes. As part of its continued commitment to supporting the wider paving industry, Interpave produces regular e-bulletins to ensure that the latest information is available and publicised alongside our highly successful website which has a wide range of technical, advisory and supportive marketing information.

Interpave continues to work with the Health and Safety Executive (HSE) on a range of issues. This includes contributing to the working group set up to minimise risks associated with all forms of road construction, and to reduce operatives’ exposure to potentially harmful operations that can arise in road construction and maintenance.

The association is currently working on further development of paving design and installation standards with BSI to ensure usability for both specifiers and installers alike. As national Government develops new legislation key publications and case studies are continuously updated to provide the latest guidance - particularly on permeable paving.

The association remains actively engaged in the development of national standards for sustainable drainage, in support of the Flood and Water Management Act and ongoing legislative changes.

Being fully committed to the effective training of installers and improving the quality of installation of their products, Interpave members contributed to the development of the National Highways Sector Scheme for paving, NHSS 30 - The Quality Management of the Installation, Maintenance and Repair of Modular Paving, actively participating in the development of the scheme, documentation, training and assessment requirements, and the development of training guides.
**PRECAST FLOORING FEDERATION (PFF)**

PFF promotes flooring products across all building sectors, focusing on key benefits such as precast flooring’s excellent performance characteristics in terms of acoustics, fire, thermal mass and robustness, as well as speed of construction. In addition, PFF members provide health and safety, quality and sustainability benefits to their clients. The two specific areas for marketing activity are upper floors in housing and flooring on steel framed structures.

Codes of Practice for both safe stressing and the safe installation of precast concrete flooring and associated components are being complied by members who have all committed to mandatory audits. This commitment provides a positive differentiator for PFF members working in a marketplace that increasingly recognises the importance of health and safety.

Technical work underpins much of the marketing activity but also addresses issues in product standards; building regulations; queries from designers, contractors, clients and building control; and guidance for designers. Hollowcore-producing members contributed to the revision of the Steel Construction Institute guide on precast composite floors (P401), to ensure the technical guidance helps in the promotion of their product and ease of construction. Beam and block producers have been in protracted technical lobbying for the continual use of micro-fibre topping in housing which is being challenged despite performing well for many years.

Members continue to benefit from PFF’s statistical service, which provides historical data comprising volume/tonnage/linear metres used of each product.

The benefits of precast flooring were featured in the High Performance Housing Feature stand at Ecobuild which attracted great interest and highlighted our members. In 2014, we exhibited alongside The Concrete Centre at Greenbuild Expo, Manchester. Press coverage has been maintained, with releases focusing on members’ case studies and performance benefits of precast flooring. The benefits of squeak-free flooring which is fire resistant, offers thermal mass and acoustic separation warrants wider use for housing upper floors. The speed of installation and thermal mass benefits of precast floors on steel frame are the basis for a compelling case in other sectors.
British Precast host affiliated groups who have a common interest in particular markets or aspects of installation.

INTERLAY

Interlay, the Association of Paving Installers, is the only independent trade association for concrete block paving and other modular paving installation contractors across the UK.

Interlay staff and members have over the past year, with support from Construction Skills, Interpave and other industry leads, contributed to developing the National Highways Sector Scheme (NHSS) 30. The scheme is aimed at improving the installation quality of modular paving. A dedicated online hub detailing the training and support available to installers is hosted and maintained by Interlay (www.interlay.org.uk/nhss30). The scheme is scheduled to go live in October 2015, when the Highways Agency will require the use of registered installers ahead of non-registered ones wherever they are available.

The National Highways Sector Scheme 30, ‘The Quality Management of the Installation, Maintenance and Repair of Modular Paving’, seeks to improve the installed quality of all types of modular paving including concrete blocks, flags, kerbs and ancillary products used in road construction. The Scheme aims to provide an industry benchmark, ensuring project processes are planned well and use properly trained and competent installers, verified by vocational qualifications and supported by the introduction of a CSCS card.

MODERN MASONRY ALLIANCE (MMA)

The MMA, supported by the clay and concrete industry members, has led a massive turnaround in the demand for “Brick and Block” construction over the last 5 years.

Despite short term issues with availability, masonry’s market share in England ended 2014 at 92%, growing significantly over the last few years.

At the outset of a deep recession and against a widespread call for modern methods of construction (MMC) and zero carbon homes, many, including leading politicians, were predicting the demise of our great industry. We have proved this not to be the case. Resilience, determination and pride are at the heart of a massive recovery led by the

“Get Britain Building” campaign and tireless lobbying to secure the abolition of the requirement for MMC and the Code for Sustainable Homes and better regulation. Our 150 year lifespan message is now being widely adopted promoting the durability and adaptability of masonry construction.

Following the last two years of circa 11% growth we are forecasting growth in housing completions of around 6% in 2015. This, combined with our highest market share this century will result in more quality homes, jobs and growth.

Futures Group

The Futures Group - the cross industry new homes Think Tank run through the MMA, has a busy agenda mapped out including the finalisation of the Housing Standards, Allowable Solutions, the development of SAP and issues surrounding indoor air quality and overheating.

The Futures Group has recently published a paper on Allowable Solutions which sets out a well thought through plan to introduce this measure without slowing down the process of building more homes.

The Futures Group in Wales is also very active with great support from the Welsh Government.

Registered Details

The MMA in conjunction with APA, CBA and Local Authority Building Control has produced 250 generic ‘Registered Construction Details’, with more details to be added this year. Designers and builders can use our Registered Construction Details for free and save up to £40 per square metre on their fabric costs compared to default design constructions. We have also worked with the NHBC Foundation to produce the ‘NHBC Part L Where to Start’ guide targeted at small builders. Both initiatives will add to the competitive advantage that masonry construction offers.
Full members are precast concrete product producers with at least one factory in the United Kingdom.

Associate members are companies and organisations involved in the industry supply chain.

Membership benefits are summarised below.

### Membership Benefits

Clients, designers and other stakeholders are increasingly demanding higher standards in quality, safety and sustainability for construction products and services.

British Precast responded by introducing the British Precast Charter Membership scheme. This requires all full members to sign up to our Health and Safety and Sustainability Charters. These Charter schemes are part of the ‘Raising the Bar’ initiative, which demonstrates our members’ commitment to zero harm and improving environmental performance within the industry.

More information on our health & safety and sustainability charters is available in Health & Safety Matters and Sustainability Matters 2015 respectively.
## Full Members List

<table>
<thead>
<tr>
<th>ABM Precast Solutions</th>
<th>E &amp; JW Glendinning</th>
<th>Patersons Quarries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acheson &amp; Glover Precast</td>
<td>Ebor Concretes</td>
<td>Plasmor</td>
</tr>
<tr>
<td>Aggregate Industries (UK)</td>
<td>Edenhall Concrete</td>
<td>Premium Concrete Products</td>
</tr>
<tr>
<td>Amber Precast</td>
<td>Evans Concrete Products</td>
<td>Quinn Building Products</td>
</tr>
<tr>
<td>Ballast Systems</td>
<td>F P McCann</td>
<td>S Morris</td>
</tr>
<tr>
<td>Bell &amp; Webster Concrete</td>
<td>Forticrete</td>
<td>Sellite Blocks</td>
</tr>
<tr>
<td>Bebig</td>
<td>H+H UK</td>
<td>Skene Concrete Products</td>
</tr>
<tr>
<td>Bison Manufacturing</td>
<td>Hanson Floors &amp; Precast UK</td>
<td>Stanton Bonna Concrete</td>
</tr>
<tr>
<td>Brett Landscaping &amp; Building Products</td>
<td>Hillhouse Quarry Group</td>
<td>Sterling Services</td>
</tr>
<tr>
<td>Broome Bros</td>
<td>Interfuse</td>
<td>Stocks Blocks</td>
</tr>
<tr>
<td>Buchanan Concretes Solutions</td>
<td>Laird Bros</td>
<td>Stowell Concrete</td>
</tr>
<tr>
<td>CEMEX</td>
<td>Lignacite</td>
<td>Tarmac Building Products</td>
</tr>
<tr>
<td>Charcon Construction Solutions</td>
<td>Litcast</td>
<td>Techrte</td>
</tr>
<tr>
<td>Collier &amp; Henry Concrete Floors</td>
<td>Longley Concrete</td>
<td>Thakeham Tiles</td>
</tr>
<tr>
<td>Cornish Concrete Products</td>
<td>Lovie Quarry &amp; Concrete Products LLP</td>
<td>Thomas Armstrong (Concrete Blocks)</td>
</tr>
<tr>
<td>CPM Group</td>
<td>Marshalls plc</td>
<td>Thorp Precast</td>
</tr>
<tr>
<td>Creagh Concrete Products</td>
<td>Milton Precast</td>
<td>Townscape Products</td>
</tr>
<tr>
<td>Cross Concrete Flooring</td>
<td>Mona Precast</td>
<td>TT Concrete Products</td>
</tr>
<tr>
<td>Decomo UK</td>
<td>Naylor Concrete Products</td>
<td>WDL Concrete Products</td>
</tr>
<tr>
<td>Delta Bloc UK</td>
<td>Newlay Concrete</td>
<td>William Rainford (Holdings)</td>
</tr>
</tbody>
</table>

## Associate Members List

| Adomast Manufacturing | Havasco | Precast New Zealand Incorporated |
| Advantage Precast | Hendriks Precon B.V | Precast/Prestressed Concrete Institute |
| BASF Construction Chemicals | Hickman & Love | Pressvess |
| BDS Marketing Research | Hope Cement | Probst Handling Equipment |
| Besser Company | Howard Taylor Consultants | Progress Group |
| Bianchi Casseforme SRL | Huntsman Pigments | Prothious Engineering Services Pvt. |
| BRE | Hydroxins | PUK |
| Canadian Precast Institute | Inter-Minerals | Resiblock |
| Carbon8 Aggregates | J & P Building Systems | RFA-Tech |
| Caswick | Kingston University | RLH Construction |
| Cathay Industries | KVM Industrimaskiner A/S | Rocan Products |
| Cement and Concrete Association of New Zealand | Lafarge Tarmac Cement & Lime | Shuttlelift |
| Christeyns UK | Lafarge Tarmac Trading | SIKA |
| Chryso UK | Larwess | Simply Precast Accessories |
| Concrete Manufacturers Association - South Africa | Leading Edge Management | Sproll Precast Services |
| Construpare | Leeds Oil + Grease Co | Strusoft UK |
| Construction Fixing Systems | Longrake Spar Co | T Grounds Associates |
| Construx BUBA | Loughborough University | Tekla (UK) |
| CPI Worldwide | Lytag | The Heartland Group |
| CSM Thermomass | Martek Industries | Trelleborg Pipe Seals |
| David Bell Group | Megasteel | UK Certification Authority for Reinforcing Steels |
| Doncaster College | Mentor Training Solutions | University College London |
| Dundee College | Moulded Foams | University of Brighton |
| Ecoratio Europe B.V | Natural Cement Distribution | University of Dundee |
| EKC Systems | N R Richards Associates | University of Nottingham |
| Elematic OY AB | National Precast Concrete Association Australia | University of Sheffield |
| Ekern Materials | National Precast Concrete Association USA | University of Surrey |
| Erico Europe B.V. | Net-Temps | University of Teeside |
| Euro Accessories | Norselkern | University of the West of England |
| Fosroc | Parex | University of the West of Scotland |
| Grace Construction Products | Patterns and Moulds | Waldeck Engineering |
| Graceland Fixing | PCE | World Concrete Forum/Clarke Consult |
| GRS Bagging | Peikko UK | Yara UK |
| Halfen | Precast Concrete Structures | |
| Hanson Cement | Precast Construction Technology | |