Welcome to our 3rd edition of The Mineral Products Industry at a Glance.

Our aim in this review is to provide you with a valuable source of information on the Mineral Products industry, documenting the changing patterns in the way we produce and consume our minerals and the manufactured products derived from them. We present a detailed analysis of the latest data for each product, and highlight the significant contribution our industry makes to the UK economy.

I very much hope that you find this issue interesting, and I welcome your feedback.

Nigel Jackson  
Chief Executive  
Mineral Products Association

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- Better Government support for an essential industry
- A reasonable “licence to operate”
- Proportionate legislation and regulation
- Recognition of progress
## 1 At a glance

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB production of aggregates and manufactured mineral products</td>
<td>300mt</td>
<td></td>
</tr>
<tr>
<td>Annual turnover</td>
<td>£21bn</td>
<td></td>
</tr>
<tr>
<td>Total gross value added of our industry</td>
<td>£6.7bn</td>
<td></td>
</tr>
<tr>
<td>Turnover of industries we supply</td>
<td>£445bn</td>
<td></td>
</tr>
<tr>
<td>Value of construction, our main customer</td>
<td>£135bn</td>
<td></td>
</tr>
<tr>
<td>People directly employed in our industry</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Jobs supported through our supply chain</td>
<td>3.3m</td>
<td></td>
</tr>
</tbody>
</table>

### GB sales of minerals and mineral products in 2014 (unless otherwise stated)

#### Construction uses

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of which</td>
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<td></td>
</tr>
<tr>
<td>Crushed Rock</td>
<td>209mt</td>
<td></td>
</tr>
<tr>
<td>Sand &amp; Gravel - land won</td>
<td>94mt</td>
<td></td>
</tr>
<tr>
<td>Sand &amp; Gravel - marine</td>
<td>44mt</td>
<td></td>
</tr>
<tr>
<td>Recycled</td>
<td>11mt</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>49mt</td>
<td></td>
</tr>
<tr>
<td>Cementitious (including imports)</td>
<td>12mt</td>
<td></td>
</tr>
<tr>
<td>of which</td>
<td></td>
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<tr>
<td>Cement</td>
<td>11mt</td>
<td></td>
</tr>
<tr>
<td>Other cementitious materials</td>
<td>2mt</td>
<td></td>
</tr>
<tr>
<td>Ready-Mixed Concrete</td>
<td>16m³</td>
<td></td>
</tr>
<tr>
<td>Concrete products</td>
<td>24mt</td>
<td></td>
</tr>
<tr>
<td>Asphalt</td>
<td>21mt</td>
<td></td>
</tr>
<tr>
<td>Dimension Stone*</td>
<td>1mt</td>
<td></td>
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</table>

#### Non-construction uses

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
<th>Description</th>
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</thead>
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<tr>
<td>Rock*</td>
<td>17mt</td>
<td></td>
</tr>
<tr>
<td>of which</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Lime</td>
<td>1mt</td>
<td></td>
</tr>
<tr>
<td>Agricultural Lime*</td>
<td>2mt</td>
<td></td>
</tr>
<tr>
<td>Industrial Sand*</td>
<td>4mt</td>
<td></td>
</tr>
</tbody>
</table>

*2013

Source: MPA, Annual Minerals Raised Inquiry. Totals may not add up due to rounding.
Locations of MPA member active sites/plants, 2015

Quarries, depots & wharves - 693

Concrete plants - 827

Asphalt plants - 277

<table>
<thead>
<tr>
<th>Plant type</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement quarry &amp; works</td>
<td>20</td>
</tr>
<tr>
<td>Crushed rock quarry</td>
<td>245</td>
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<tr>
<td>Depot or wharf</td>
<td>116</td>
</tr>
<tr>
<td>Dimension stone quarry</td>
<td>31</td>
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<tr>
<td>Industrial lime quarry</td>
<td>6</td>
</tr>
<tr>
<td>Sand &amp; gravel quarry</td>
<td>256</td>
</tr>
<tr>
<td>Silica sand quarry</td>
<td>19</td>
</tr>
</tbody>
</table>
2 An essential industry

2.1 Mineral production

The Mineral Products Industry is a key enabling sector of the UK economy, which has a broad impact on overall economic activity. As the largest element of the construction supply chain, a supplier of key materials to many other industries, and the largest material flow in the UK economy, a healthy domestic Mineral Products Industry is essential for the UK. The majority of the industry output is used in the UK construction industry – improving our housing stock, transport networks, commercial and industrial buildings, utilities, schools and hospitals.

Non-construction markets include iron and steel manufacture, glass making, agriculture, cleaning power station emissions and pharmaceuticals.

About 260 million tonnes of aggregates and other minerals are produced each year in the UK. To this, the industry adds about 80 million tonnes of manufactured mineral products such as cement and asphalt, which are mainly used in the construction sector. Overall, domestic sources supply about 85% of the cement market.

**UK production of minerals, 2013.** Source: MPA, BGS UK Mineral Yearbook.

*Includes methane condensates, lead, gold, silver, chalk, clay & shale, slate, ball clay, barytes, chert & flint, china clay, fluorapatite, gypsum, lignite, potash, salt, talc, china stone, fireclay and peat.
2.2 Gross Value Added (GVA)

The Mineral Products Industry is defined as the extraction of aggregates, dimension stone, limestone and silica sand, as well as the production of asphalt, cement, concrete and mortar. It also includes a share of road freight activities, as mineral producers deliver most of their materials by road, as well as some road contracting work when asphalt producers lay the asphalt themselves.

Based on this definition, MPA estimates that the Mineral Products Industry directly contributed to the UK economy by generating over £6.7bn in GVA in 2013, greater than the manufacture of chemicals and chemical products or the creative industry. It had a turnover of £21bn, and contributed to £445bn turnover in industries downstream of the supply chain.


(1) MPA believes the ONS estimate for the cement industry’s GVA understates the industry’s actual GVA. 2013 GVA for the cement industry was estimated by the MPA to be around £329m.

(2) Excludes minerals covered by the MPA membership, which are included in the manufacturing stage of the supply chain.

(3) Excludes asphalt contracting work carried out by mineral producers.
Directly employing some 80,000 people, and supporting 3.3 million jobs through its supply chain, the Mineral Products Industry is also a highly productive industry: each worker produced about £81,000 in 2013, 1.6 times more value added than the national average.

2.3 Productivity

Productivity by industry, 2013.


* This is not an official ONS Standard Industrial Classification (SIC), but reflects MPA members’ activity.
3 Mineral product profiles

The Mineral Products Industry, represented by the MPA, comprises aggregates, asphalt, cement, ready-mixed and precast concrete, industrial sand, lime, mortar, slag, and dimension stone.

3.1 Aggregates (crushed rock, sand & gravel)

Within aggregates, the main element of supply is crushed rock with significant contributions from sand & gravel, recycled and secondary materials. The sand & gravel supply comprises both land-won and marine dredged materials. This broad breakdown disguises the fact that local and regional markets may be highly dependent on a particular type or source of aggregate as a consequence of the physical availability of particular resource types and/or the market demand for particular products.

Estimated total UK primary aggregates sales, 2014.
Source: Annual Minerals Raised Inquiry, MPA, QPA Northern Ireland.

Total aggregate sales by region, 2013.
Source: Annual Minerals Raised Inquiry.
In 2008, reflecting the significant decline in construction markets, but have started to recover since mid-2013. Total aggregates sales increased 11% between 2012 and 2014 as construction activity picked up, driven by the housing sector. The aggregates market remains nonetheless about 25% below 2007 volumes, so there remains significant scope for further improvements in minerals products and construction markets, particularly outside London and in non-housing markets.

Over the last 60 years, there have been some variations in the relative importance of the different sources of aggregates, most notably the increase in the supply of recycled and secondary materials evident since the early 1990s. Aggregate sales have been depressed since the onset of the recession in 2008, reflecting the significant decline in construction markets, but have started to recover since mid-2013. Total aggregates sales increased 11% between 2012 and 2014 as construction activity picked up, driven by the housing sector. The aggregates market remains nonetheless about 25% below 2007 volumes, so there remains significant scope for further improvements in minerals products and construction markets, particularly outside London and in non-housing markets.
Marine aggregates satisfy about 20% of the construction needs for sand & gravel in England and Wales. Marine aggregates also support beach nourishment and contract fill projects in the UK and are exported overseas for use in construction. Total production of sand & gravel for UK construction, export, beach nourishment and contract fill, shows that total marine aggregates production levels have been consistently lower than the total tonnage amount permitted across all operators’ production licences. The difference reflects the fact that individual dredging areas can offer a variety of materials, from fine sand to coarse gravel, so multiple licence areas in each dredging region ensure that there are enough materials for each operator to supply both current and future market needs, and also provide the industry with the flexibility to respond to any future changes in market demand that may occur. Multiple licences also ensure dredging areas are near to customers. The biggest use for marine dredged aggregates is the construction market in the UK.

Aggregates are a high bulk/low cost commodity, and consequently are highly sensitive to transport distances. Where local sources of aggregate are constrained, either because resources are not geologically present or because existing sources have become depleted, alternative sources of supply have to be found. Through economies of scale, marine aggregates supplies can play an important role in the overall portfolio of construction aggregate supply by transporting large volumes (2,000-10,000 tonnes/cargo) over considerable distances and delivering them to coastal towns and cities close to where they are needed. As an example of this, in London and the South East of England, one third of all the primary aggregates consumed in construction activity come from marine sources.

The underlying geology of the UK determines the local availability of mineral products which are only transported long distances when necessary. However, resources are not always distributed evenly and some inter-regional movement is necessary. The South East, for example, has its own supplies of sand and gravel but relies heavily on crushed rock brought in by rail from the East Midlands and South West and by sea from Scotland. It also requires marine dredged sand & gravel from coastal waters. The charts above show the main inter-regional crushed rock and sand & gravel movements.
3.2 Cementitious

Cement is the key component in producing ready-mixed concrete, precast concrete and mortar. Following a stable market in the early and mid-2000s, the economic recession saw cement sales drop by 34% between 2007 and 2009. Since 2012 markets have improved, but sales are still 20% lower than in 2007.

Cement is made by crushing and heating limestone or chalk with small amounts of other natural materials, such as clay or shale, in a rotating kiln to a temperature of 1450°C. This chemically combines the stones into a hard substance called clinker, essentially changing calcium carbonate (CaCO₃) to calcium oxide (CaO) which then reacts with silica (SiO₂) to form calcium silicates with Ferrite and Aluminate mineral formation completing the mineralogy of the clinker complex. As well as the mineral content of the raw materials, their moisture content is an important feature. Chalk has a higher moisture content than hard limestone and this tends to come with an energy penalty for the process. As the final step in (CEM I) cement making, the clinker is ground to a powder with about four to five per cent gypsum, added to control the setting time of the end-product, further blending occurs for the other cement types identified below.

Three main classifications of cement sold in the UK are:

- **CEM I** – made from ground cement clinker and a small percentage of gypsum to control the material’s setting time when mixed with water.
- **CEM II** – is a cement containing between 6 and 35% fly ash, limestone or blast furnace slag, a by-product of steel production.
- **CEM III** – is a cement containing between 36 and 95% blast furnace slag.

There are a variety of cement products designed for specific end-uses.
3.3 Ready-mixed concrete

Ready-mixed concrete is used in all types of construction and is therefore a useful indicator of activity from housing to high-rise and infrastructure. It is readily available in all GB regions where the average delivery distance is 8 miles. Demand for ready-mixed concrete is closely aligned with construction activity, so there continues to be nearly 3 times more supplied in London and the South East than in most other GB regions.

1.3 Ready-mixed concrete sales by region, 2014. Source: MPA.


1) GB Estimates are based on the assumption that MPA sales represent 75% of the total GB market. Includes fixed & site plants.
3.4 Precast concrete

Precast concrete is an essential ingredient of many buildings and civil engineering projects. For instance, 80% of all new roofs are made from concrete tiles, whilst concrete and masonry provide strength, thermal mass and fire protection to 85% of new homes built over the last 30 years. The market is mainly supplied from domestic sources but the chart points to the vulnerability of this sector to international competition, as the UK has moved from a trade surplus to a trade deficit over the last 10 years. The UK has been a net importer of concrete products since 2009.

3.5 Mortar

Mortar plays an essential role in the building and construction industries, providing the ‘glue’ that bonds bricks, blocks and stones into masonry. About 70% of mortars used in the UK come from factory-produced sources, as opposed to being mixed on site, reflecting the ever-increasing demands for quality building products in the development of our built environment. With the financial crisis and the collapse in housing construction, mortar sales in Great Britain fell by 42% between 2007 and 2009. They have since started to recover, but the relatively mild performance in 2014 (+2%) highlights that the methodology used to estimate total GB sales using brick and block deliveries underestimates the market due to the significant rise in brick and block imports.

Representing over 75% of the total GB market, the trend in sales from the Mortar Industry Association (MIA) provides a more realistic view of the market performance, with sales growth of 19% in 2014, in line with housing construction.
3.6 Asphalt

Rocks are the economic and social arteries of the nation and we depend upon asphalt for road maintenance and construction. Asphalt is produced locally, and serves both the local and national networks. Following the recession, these markets declined very steeply in 2012 but markets have picked up since the end of 2013. Asphalt sales rose 13% between 2012 and 2014 but remain well below levels seen prior to the recession.

MPA asphalt sales in GB. (mt) Source: MPA.

Estimated total UK asphalt \(^{(1)}\) sales, 2014.
Source: MPA, QPA Northern Ireland.

\(^{(1)}\) Estimates for England, Scotland and Wales are based on the assumption that MPA sales represent 90% of the total GB market for Asphalt.
3.7 Lime

3.7.1 Industrial lime

Many diverse industries such as steel, chemicals, glass and construction rely heavily on industrial lime. This unique and versatile mineral is also used in the production of sugar, the treatment of contaminated land, the desulphurisation of flue gases from power stations and the purification of water for human consumption. The sector makes a positive contribution to the UK trade balance, with around 20% of industrial lime being exported.

3.7.2 Agricultural lime

Quarried agricultural lime remains UK agriculture’s principal tool in moderating the effects of climate change, excess soil acidity, and supplying essential calcium plant nutrient. Lime plays a key role in protecting nature’s greatest asset - the soil; maintaining a healthy and productive environment essential to meeting the challenges of future food security.

It is estimated that twice as much agricultural lime needs to be applied to UK farmland to prevent soil becoming too acidic.
### 3.8 Dimension stone

The UK industry for dimension stone has declined since the 19th century in the face of overseas competition, but still plays an important role in ensuring that the unique local characteristics of natural stone-built areas of the UK can be maintained. In 2013, there was just under 1 million tonnes of dimension stone produced in GB, mainly from sandstone and limestone.

#### Total sales of dimension stone in GB. (mt)

Source: Annual Minerals Raised Inquiry.

![Graph showing total sales of dimension stone in GB from 2004 to 2013.](image)

- **Sandstone**
- **Igneous rock**
- **Limestone**(1)

(1) Includes dolomite.

### 3.9 Industrial sand

As well as being used for glass making, paints, plastic and computer chips, industrial sand is also employed in making foundry moulds for applications such as car engines. After declining significantly between 2006 and 2009, the production of industrial sand in GB stabilised at about 4 million tonnes per year.

#### Total sales of industrial sand in GB. (mt)

Source: Annual Minerals Raised Inquiry.

![Graph showing total sales of industrial sand in GB from 2004 to 2013.](image)
4. Long term aggregate supply

Subject to the geological conditions, a key factor influencing the supply of aggregates is the operation of the mineral planning system. In England, the managed aggregates supply system is designed to ensure a steady and adequate supply of aggregates. The chart below indicates permitted reserves of aggregates since the early 1990s.

Estimated permitted minerals reserves in England. (mt) Source: BGS, MPA.

However, replenishment rates are more meaningful statistics, as they provide information on the long term availability of supply.

If the amount of aggregates receiving planning permission equals the level of production, the replenishment rate is 100%. The chart opposite indicates that whilst replenishment rates for crushed rock have been close to parity in recent years, sand and gravel is being replaced at a much slower pace: for every 100 tonnes of sand and gravel used, only 47 tonnes is being replaced through new planning permissions, which has resulted in significant decline in permitted reserves of sand and gravel over the last 15 years. The implication of long term replenishment rates below 100% is that shortages of supply may become apparent.

Evidence from Local Aggregates Assessments and Local Plan formulation suggests that this is beginning to appear in parts of Yorkshire, the South West, the South East, the North West, and the West Midlands.

GB replenishment rates\(^{(1)}\) for sand & gravel and crushed rock, 10-year rolling averages. Source: MPA.

\(^{(1)}\) If the amount of aggregates receiving planning permission equals the level of production, the replenishment rate would be 1.
5 Taxation

The cumulative burden of environmental and planning related taxation and regulation on mineral products cuts deeply into the industry’s GVA, and the pressures are also set to increase in the coming years.

The industry is in the scope of the European Union Emissions Trading Scheme (EUETS), Climate Change Agreements (CCA) linked to the UK Climate Change Levy (CCL) and the Carbon Reduction Commitment Energy Efficiency Scheme (CRC), all of which are focused on carbon reduction. In addition, the industry has to manage the indirect impact of measures and associated costs related to the costs of generating and supplying the energy used by the industry.

Climate change and energy measures in 2014 were equivalent to 8% of the GVA of the Cement industry, but this proportion could increase to 46% by 2020 (from £27 million to over £195 million per annum). The annual cost of the aggregates levy alone is equivalent to 17% of industry GVA in 2013.

GVA\(^{(1)}\) and estimated cost of energy and climate change measures for the cement industry. (£m) Source: MPA.

Aggregate Levy compared to GVA in the aggregates industry, 2013. (£m) Source: HMRC Aggregate Levy Bulletin, ONS Annual Business Surveys.

\(^{(1)}\) MPA believes the ONS estimate for the cement industry’s GVA understates the industry’s actual GVA. 2011 GVA for the cement industry was estimated by the MPA to be around £323m. GVA for 2012/2014 follows cementitious sales trends. For 2014-17, GVA is assumed to rise in line with MPA sales forecast. Beyond 2017, GVA is assumed to grow in line with GDP trend growth of 2.3%.

\(^{(1)}\) Quarrying of stone, sand & clay (SIC 08.1).
6 Environment and sustainability

6.1 Recycling

Recycled and secondary materials now account for 29% of the GB aggregates market. Recycled materials include construction and demolition waste, asphalt planings and used railway ballast. Secondary materials include iron and steel slag, waste glass, incinerator and furnace bottom ash and waste from extractive activities such as china clay and slate.

The share of recycled and secondary materials in the total GB aggregates market is also the highest share in Europe; the European average stands at about 10%.

Sales of Portland cement are supplemented by the use of other cementitious materials including ground granulated blast furnace slag (GGBS) and fly ash. These cementitious materials are supplied either as a component of blended cements or directly to concrete manufacturing facilities.

Share of recycled and secondary materials in total GB aggregate sales.
Source: Annual Minerals Raised Inquiry, MPA.

Share of recycled and secondary materials in total aggregate sales in 2013. Source: UEPG, Annual Minerals Raised Inquiry, MPA.

GGBS & fly ash in the MPA cementitious market, 2014.

(1) Includes manufactured, recycled (fixed & mobile) and aggregates re-used on site.
6.2 Resource efficiency

UK sales of both aggregates and cement per capita are relatively low and amongst the lowest in comparison with the rest of Europe. The charts below indicate that the use of aggregates and cement per capita is about 32% and 48% respectively below the European average.

Total aggregates\(^{(1)}\) production per capita in Europe, 2013.
Source: UEPG, MPA.

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Total aggregates\(^{(1)}\) production per capita, 2013. (tonne/capita) Source: UEPG, MPA.

Cement consumption per capita, 2013. (kg/capita) Source: ERMCO, EUROSTAT.

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\(^{(1)}\) Includes primary, manufactured, recycled (fixed & mobile) and aggregates re-used on site.
Cement manufacture is, by its nature, energy and carbon dioxide intensive. The UK industry has been a world leader in its carbon reduction drive to date, reducing CO₂ emissions by 55% between 1990 and 2013. This was achieved through heavy investment and a progressive move toward using alternative waste-derived fuels. In 2013, the sector published a greenhouse gas strategy which set out how emissions could be reduced by as much as 81% by 2050 compared to 1990.

\[\text{Portland Cement Equivalent (Pce)}\] is a normalising factor related to cement output often used by the cement industry, which enables a comparison of impacts such as environmental between sites whilst taking into consideration differing production methods, cement product types and movement of intermediate products. Includes non-kilo sites production from 2010 onward.

### Carbon emissions

Carbon dioxide in cement production. (Kg of CO₂/tonne of Pce\(^{(1)}\))

Source: MPA.

<table>
<thead>
<tr>
<th>Year</th>
<th>CO₂ Emissions (Kg of CO₂/tonne of Pce)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>900</td>
</tr>
<tr>
<td>2005</td>
<td>850</td>
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<td>550</td>
</tr>
<tr>
<td>2012</td>
<td>500</td>
</tr>
<tr>
<td>2013</td>
<td>450</td>
</tr>
</tbody>
</table>

### MPA National Nature Park

The minerals industry is uniquely placed to contribute to delivery of national and local biodiversity targets. At least 5,200 hectares of priority habitats has been created through the restoration of old quarries, the equivalent of at least five Richmond Parks. Also, a further 5,600 hectares of priority habitat is currently planned through the restoration of sites.

Opposite is a map of some of the main restoration sites, a nationwide network of quarries that have been restored for wildlife and which are accessible to the public. This initial map includes 50 sites around the country totalling 4,000 hectares, with a range of facilities including nature trails, viewing hides and visitor centres.

Collectively they form MPA’s National Nature Park.

You can view the map in more detail at: www.mineralproducts.org/nature_map.htm
6.5 Sustainable Development Reports

Links to Sustainable Development Reports
http://www.mineralproducts.org/sustainability/reports.html
Annually, the industry supplies £21bn worth of materials and services to the Economy. Industry production represents the largest materials flow in the UK, and is also one of the largest manufacturing sectors.

**Aim of the MPA**

MPA members will be recognised and valued for supplying essential materials for a sustainable future in a manner that is economically viable and socially and environmentally responsible.

**Role of the MPA**

MPA is the voice of the mineral products sector and represents and promotes its members in order to:

- Secure and maintain the “licence to operate” for the safe, sustainable and responsible supply of essential mineral products from the UK;
- Raise awareness of the industry, its activities and contribution to the economy and to protect and grow its markets;
- Influence the development of technical and environmental standards and codes of practice;
- Encourage innovation and the delivery of sustainable and responsible environmental product and market solutions;
- Advocate and influence the design and product choice of members’ products;
- Maintain existing and develop new markets which are stable, “level” and certain and minimise cumulative impacts;
- Educate stakeholders to ‘Make the link’ between the sources of mineral products and their use.

**MPA members are:**

- Committed to the principles of sustainable development;
- Committed to achieving TARGET ZERO & ZERO HARM and raising skill levels;
- Committed to protecting and enhancing UK Biodiversity;
- Committed to reducing carbon and other industrial emissions and maximising recycling of materials and high quality restoration of land and improving resource efficiency;
- Committed to the sustainable use of their products by end users;
- Socially and environmentally responsible suppliers of essential materials;
- Valuable and active members of their communities particularly in rural areas;
- Able to provide a range of career opportunities and career development and respond to skills shortages;
- Innovative and share good and best practice particularly in health and safety and sustainable development.
The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of British Precast and the British Association of Reinforcement (BAR), it has a growing membership of 480 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME quarrying companies throughout the UK, as well as the nine major international and global companies. It covers 100% of GB cement production, 90% of aggregates production, 95% of asphalt and over 70% of ready-mixed concrete and precast concrete production. In 2013, the industry supplied £21bn worth of materials and services to the construction and other industries, with a total turnover of £445bn. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors. For more information visit: www.mineralproducts.org

MPA Full Members

England & Wales

Aggregate Industries UK Ltd
Air Products PLC
Albion Stone plc
Allen Newport Ltd
Ballast Phoenix
Bathgate Silica Sand Ltd
Bestco Surfacing Ltd
Black Mountain / De Lank Quarry Ltd
Borough Green Sandpits Ltd
Breedon Aggregates
Brett Group
Britannia Aggregates Ltd
Bromfield Sand & Gravel Co Ltd
Burlington Slate Ltd
Cardigan Sand & Gravel Co Ltd
CEMEX UK
Chambers Runfold
Colas Ltd
Cornish Lime Company Ltd
Cormac Solutions Ltd
CPI Mortars Ltd
Day Group Ltd
Deme Building Materials Ltd
Dunhouse Quarry Co
Erith Group Limited
Europa Roadstone
F M Conway Ltd
Forest Pennant
Francis Flower
Gallagher Group Ltd
GD Harries
GRS Roadstone Limited
Grundon Sand & Gravel Ltd
H Sivyer (Transport) Ltd
H.H. & D.E. Drew
H Tuckwell & Sons Ltd
Hanson UK
Harleyford Aggregates Ltd
Harsco Metals Group Limited
Hills Quarry Products Limited
Holderness Aggregates Ltd
Hope Construction Materials
Hugh King & Co
Hutton Stone Co Ltd
J & J Franks Ltd
J Club Ltd
J.J. Prior Limited
J Wainwright & Co Ltd
John Carr (Liverpool) Ltd
John William Sutherland Ltd
JPE Holdings Ltd
Kendall Brothers (Portsmouth) Ltd
Kerneos Ltd
Lafarge Tarmac
Lhoist UK Ltd
Lovell Stone Group
Mansfield Sand Co Ltd
Marchington Stone
Marshalls plc
Midland Quarry Products
Moortown Sand & Gravel Pits
Moreton Cullimore (Gravel) Ltd
Morris & Perry (Gurney Slade) Ltd
Myers Group
Northumberland Quarries
O’Donovan Waste Disposal Ltd
Portland Stone Firms Ltd
R Collard Ltd
R.J.D. Ltd
Remix Dry Mortars Ltd
Rotherham Sand & Gravel Co Ltd
S Walsh and Sons
Salop Sand & Gravel Supply Co Ltd
Sea Aggregates Ltd
SRC Aggregates
Sibelco UK
Singleton Birch Ltd
Smith & Sons (Bletchington) Ltd
Springfield Farm Ltd
SSG Quarries
The Bath Stone Group
Tradstocks Natural Stone
TJ Transport Ltd
Trafalgar Quarrries Ltd
Tudor Griffiths Group
United Asphalt Ltd
United Recycled Aggregates Limited
Volker Dredging Ltd
W Clifford Watts Ltd
Wildmoor Quarry Products
Woodkirk Stone

British Precast

Product groups

Aircrete Products Association
Architectural Cladding Association
Box Culvert Association
Concrete Block Association
Concrete Pipeline Systems Association
Concrete Sleeper Manufacturers Association
Concrete Tile Manufacturers Association
Construction Packaged Products Association
Interlay
Modern Masonry Alliance
Precast Flooring Federation
Structural Precast Association

British Precast

Full members

ABM Precast Solutions Limited
Acheson & Glover Precast Limited
ACP (Concrete) Limited
Aggregate Industries (UK) Limited
Amber Precast Limited
Banagher Precast Concrete Ltd
Bartec Systems Limited
Bell & Webster Concrete Limited
Besblock Limited
Bison Manufacturing Limited
Breedon Aggregates Scotland Ltd
Brett Landscaping & Building Products
Broome Bros (Doncaster) Limited
Buchan Concrete Solutions Limited
Cemex UK
Charcon Construction Solutions
Collier & Henry Concrete (Floors) Limited
Cornish Concrete Products Limited
CPM Group Limited
Creagh Concrete Products Limited
Cross Concrete Flooring Ltd
Decomo UK Limited
Delta Bloc UK Limited
E & JW Glendinning Limited
Ebor Concretes Limited
Edenhall Concrete Limited
Elite Precast Concrete Limited
Evans Concrete Products Limited
F P McCann Limited
Forticrete Limited
H + H UK Limited
Hanson Floors & Precast UK
Hillhouse Quarry Group Ltd
Interfuse Limited
Laid Bros (forfar) Ltd
Lignacite (Brandon) Ltd
Cathay Industries Ltd
Cement and Concrete Association of New Zealand
Christeens UK Ltd
Chryso UK Ltd

Note: membership via Grandfather Rights
Concrete Manufacturers Association - South Africa
Concrete Technology Ltd
Conspire Ltd
Construction Fixing Systems Ltd
Coote Engineering Ltd
Construx BUA
CPI Worldwide
CSM Thermomass
David Ball Group Plc
Doncaster College
Dundee College
Ecoratio Europe B.V
ER Systems Ltd
Elastim OT AB
Ekem Materials Ltd
Enco Europe B.V
Euro Accessories Limited
Fosroc Limited
Grace Construction Products Ltd
Graceland Fixing Ltd
GRS (Bagging) Ltd
Hafren Limited
Hanson Cement Limited
Havisco Ltd
Hendrik’s Precon B.V
Hickman & Love (Tipton) Ltd
Hope Construction Materials
Howard Taylor Consultants
Hydronix Ltd
Huntsman Pigments
Inter-Minerals
J & P Building Systems Limited
Kingston University
KWM Industriemaskiner A/S
Lafarge Tarmac Trading Limited
Lafarge Tarmac Cement & Lime Limited
Lanxess Ltd
Leading Edge Management
Leeds Oil + Grease Co Ltd (LOGCO)
Longrake Spar Co Ltd
Loughborough University
Lytag Ltd
Martek Industries Ltd
MegaSteel Ltd
Mentor Training Solutions Limited
Miers Construction Products Ltd
Moulded Foams Ltd
National Cement Distribution
National Precast Concrete Association Australia
National Precast Concrete Association USA
Net-Temps Ltd
Norsekem Ltd
Parex Ltd
Patterns and Moulds Ltd
PCE Limited
Peliko UK Ltd
Precast Concrete Structures Limited
Precast Construction Technology Ltd
Precast New Zealand Incorporated
Precast/Prestressed Concrete Institute
Pressvess

MPA Associate Members

England & Wales

Addax International Ltd
Alliance Planning
Ameck Foster Wheeler Environment & Infrastructure UK Limited
Ammann Equipment Ltd
Archaeological Research Services Ltd
Babcock International Group
BASF Construction Chemicals (UK) Limited
BDS Marketing Research Ltd
Benninghoven UK Ltd
Berrymans Lace Mawer
Bidwells
Birketts Solicitors
Burgess Salmon LLP
Brigade Electronics Plc
British Sugar plc
Carter Jonas LLP
Cathay Pigments (UK) Ltd
Chaselet Ltd
Christeens UK Ltd
Command Alkon Ltd
D B Schenker
David Ball Group
Davies Planning Ltd
DLA Piper UK LLP
Dustcan
EA Ltd
EIS Property
Envireau Water
EPC-UK
ESI Limited
Finning (UK) Ltd
Firstplan
Foot Anstey LLP
Freeths LLP
French Jones
Gerald Eve LLP
Golder Associates (UK) Ltd
Grace Construction Products Ltd
GVA
Hafren Water
Hewith Robins International
Howes Percival LLP
HSL Consulting
Huntsman Pigments
J C Bamford Excavators Ltd
Jenco Consulting Ltd
Kingsbridge Risk Solutions Ltd
KJ Services Limited
Knights Solicitors LLP
Land & Mineral Management Ltd
Lanxess Ltd
Marubeni-Komatsu Ltd
Matthews & Son Chartered Surveyors LLP
Mentor Training Solutions Limited
Mills & Reeve
Mineral Products Qualifications Council
Mineral Services Ltd
MJA
Neil Beningfield & Associates Ltd
ORICA Europe Ltd
PDE Consulting Ltd
Pinsent Masons LLP
Proctor Johnson
PQ Silicas UK Limited
Rema Tip Top Industry UK Ltd
Response Engineering
H & T Labour and Vacuumation Services Ltd.
Rettenmaier UK Ltd
Richard Fox & Associates Ltd
Savills (L&P) Ltd
Schenk Processes UK Ltd
SERAC UK
Siemens
Silkstone Environmental Ltd
SLR Consulting Ltd
Smiths Gore
Speciality Minerals
Spillard Safety Systems Ltd
Stephens Scown
Stocksigns
Tata Steel
The Crown Estate
Thirings LLP
TLT Solicitors
UK Quality Ash Association
Walters Group
Whitwick Engineering
Wirtgen Limited

British Precast

Associated members

Adomast Manufacturing Ltd
Advantage Precast
BASF Construction Chemicals
BDS Marketing Research Ltd
Besser Company
Bianchi Casseforme SRL
BRE
Canadian Precast Institute
Carbon8 Aggregates Ltd
Caswick Ltd

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Precast Concrete Structures Limited
Precast Construction Technology Ltd
Precast New Zealand Incorporated
Precast/Prestressed Concrete Institute
Pressvess
Probst Handling Equipment
Progress Group
Prothious Engineering Services Pvt. Ltd
PUK Ltd
Resiblock Ltd
RLH Construction Ltd
RFA-Tech Ltd
Rocan Products Ltd
Shuttlelift
SIKA Ltd
Simply Precast Accessories Ltd
Spiroll Precast Services Ltd
StruSoft UK
The Heartland Group
Tekla (UK) Ltd
T Grounds Associates
Trelleborg Forsheda Pipe Seals
UK Certification authority for Reinforcing Steels (Cares)
University College London
University of Brighton
University of Dundee
University of Nottingham
University of Sheffield
University of Surrey
University of Teeside
University of the West of England
University of the West of Scotland
Waldeck Engineering Limited
Yara UK Ltd

MPA
Affiliate members
MPA Scotland
(NB: Excludes Major companies who are all members.)
Angle Park Sand & Gravel Co
Bonnar Sand & Gravel Co Ltd
Breeden Aggregates Scotland Ltd
Hillhouse Quarry Company Ltd
Laird Aggregates Ltd
Leiths (Scotland) Ltd
McFadyens Contractors
O’I Manufacturing UK Ltd
Patersons of Greenoakhill Ltd
Pat Munro (Alness) Ltd
Tillicoultry Quarries Ltd
Tinto Sand & Gravel Ltd
The Geddes Group
W H Malcolm

QPA Northern Ireland (QPANI)
Acheson & Glover Ltd
Alpha Quarry Products Ltd
Armagh City Quarries
B McCaffrey & Sons Ltd
Barack Hill Quarries
Boville McMullan Ltd
Campbell Contracts Ltd
Northstone Products Ltd
CES Quarry Products Ltd
Colmwell Concrete Ltd
Colleen Brothers (Quarries) Limited
Conexpo (NI) Limited
Core Aggregates
Creagh Concrete Products Limited
Curtis Concrete Solutions Ltd
Douglas Acheson
Ernecast Ltd
F K Lowry Piling Ltd
F P McCann Limited
G & G Ross
George Crawford & Son
Gibson Bros.
Harold Graham
Hughes Precast Products Ltd
Irish Salt Mining & Exploration Co Ltd
Irwins Quality Aggregates
James Boyd & Sons (Cammoney) Limited
John McQuillan (Contracts) Limited
Jordan Concrete
Kilvaughter Chemical Co Ltd
LaFarge Tarmac
Lagan Cement Company
Lagan Cement Products Ltd
Lagan Construction Materials Ltd
Loughran Rock Industries
Macrete Ireland
Matthew Robinson & Son Concrete Products
McGarrity Brothers Ltd
Miskelly Brothers
MW Johnston & Son
Norman Emerson Group Limited
Northstone Materials
Omya Uk Ltd
P Clarke & Sons Limited
P Keenan
Patrick Bradley Limited
Peter Fitzpatrick Leod Quarries
Premier Cement Limited
Quinn Building Products Ltd
R J Mitten & Sons
Riddles Bros Limited
Riverside Sand and Gravel Ltd
Robinson Quarry Masters Limited
RTU Ltd
Stanley Bell & Sons Ltd Sand & Gravel
T H Moore (Contracts) Ltd
LaFarge Tarmac
Toberman Concrete
Tracey Concrete Limited
Tullyraine Quarries Limited
W & J Chambers Limited
W J & H Crozier
Whitemountain Quarries Limited
WJ McCormick & Sons Ltd
Northern Ireland Associates & Affiliates
Carson McDowell Solicitors (Affiliates)
CDE Global Ltd (Affiliates)
Cleaver Fulton Rankin Solicitors (Affiliates)
ConveyorTek (Affiliates)
Dennison Commercials Ltd (Affiliates)
Finnin (Affiliates)
Golder Associates (UK) Ltd (Affiliates)
Jabez Safety Solutions (Affiliates)
McLorinan Consulting Ltd (Affiliates)
Onica Blast & Quarry Surveys (Affiliates)
RHM Commercial LLP (Affiliates)
RHM Commercial LLP (Affiliates)
Six-West Ltd (Affiliates)
SLR Consulting (Ireland) Ltd (Affiliates)
Smiley Monroe (Affiliates)
Switch Business Systems Limited (Affiliates)

British Association of Reinforcement (BAR)
ArcelorMittal Kent Wire Ltd
BRC Limited
BRC Manufacturing Ltd
Celsa Steel UK Limited
Cannon Steels Limited
Collins Reinforcement Limited
Express Reinforcements Ltd
HY-TEN Ltd
LM Products Limited
Lemon Groundwork Suppliers Limited
Outokumpu Stainless
ROM Ltd
RSJ Steels (Lincoln) Ltd
Stainless UK Limited

Eurobitume UK
Nynas Bitumen
Shell Bitumen
Total Bitumen

TBF Thompson (Affiliates)
Ulster Industrial Explosives Limited (Associate)
William Orbinson QC (Affiliates)
Atlantic Bitumen (Associate)
Tennants Bitumen (Associate)
For further information:

MPA's constituent bodies and affiliated organisations:

- Mineral Products - Northern Ireland, QPANI: www.qpani.org
- Cement - MPA Cement: http://cement.mineralproducts.org
- Precast Concrete - British Precast: www.britishprecast.org
- Ready Mixed Concrete – BRMCA: www.brmca.org
- Lime - British Lime Association: www.britishlime.org
- Marine Aggregates - BMAPA: www.bmapa.org
- Mortar - Mortar Industry Association: www.mortar.org.uk
- Agricultural Lime - ALA: www.aglime.org
- Industrial Sand – SAMSA: www.samsa.org.uk
- The Concrete Centre: www.concretecentre.com
- Reinforcing Steel - British Association of Reinforcement: www.uk-bar.org
- Asphalt Industry Alliance, in partnership with Eurobitume UK: www.asphaltindustryalliance.com

Other official websites used as data sources:

- Annual minerals raised inquiry survey, DCLG: www.gov.uk/government/collections/minerals
- European Aggregates Association: www.uepg.eu
- Eurostat: http://ec.europa.eu/eurostat/data/database
- UK Minerals Forum: www.ukmineralsforum.org.uk

Brushing-in sand | Filtration sand
Cement | Limestone
Quartz gravel | Agricultural lime

Back cover | Front cover