mpa
essential materials
sustainable solutions



Profile of the UK Mineral Products Industry

2020 Edition

make the link
to mineral products

Welcome



Welcome to our 2020 edition of Profile of the UK Mineral Products Industry.

This edition is mostly based on data up to 2018, although information for 2019 was included where available. It sheds light on the breadth of the mineral products industry, from the diversity of the products and their uses, the scale of their markets, to their environmental and sustainability attributes. Throughout this publication, our aim is to demonstrate and celebrate the essential role of minerals and mineral products as an enabling industry for others to thrive on, essential for our economy and our quality of life.

Aggregates for our railways, asphalt for our roads, mortar for our homes, concrete for our schools, hospitals and infrastructure, armour stone for our coastal defences, industrial lime for our drinking water, industrial sand for glass, and clays for ceramics, hardly touches the surface of the role minerals play in our society. The list goes on. The industry supplies the necessary raw and manufactured mineral products to support future sustainable economic growth, whilst also playing its part in the transition to a low carbon and more circular economy. It employs 81,000 people directly at over 2,000 active sites and plants, and supports an additional 3.5 million jobs throughout the supply chain.

This publication provides readers with a unique source of information on an industry that is so essential to our way of life, and yet remains too often misunderstood by the wider community. It illustrates the changing patterns in the way we produce and consume our minerals and the manufactured products derived from them. This is a valuable resource at a time when Government's support for industry data collection and consolidation is wavering, increasingly relying on industry to fill the gaps.

I very much hope that you will enjoy this edition – and, perhaps, learn something new along the way.

Nigel Jackson
Chief Executive
Mineral Products Association

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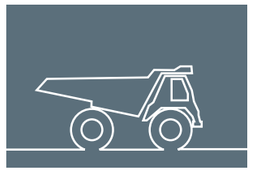
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MPA Agenda

- Economic conditions that support investment
- Better Government support for an essential industry
- A reasonable "licence to operate"
- Proportionate legislation and regulation
- Recognition of progress

Readers note: The data provided in this publication reflects a mixture of both UK and GB information, based on availability.

1 At a Glance (2018)



400mt
Production of aggregates and manufactured mineral products (GB)



4 times
The volume of energy minerals produced in the UK including oil, gas and coal



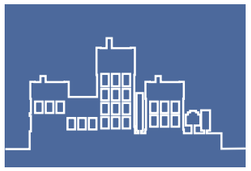
£16bn
Annual turnover for the Minerals and Mineral Products Industry (UK)



£5.8bn
Gross value added generated by the industry (UK)



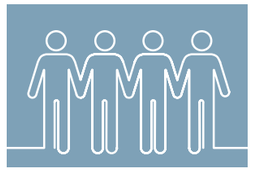
£597bn
Annual turnover of the industries we supply (UK)



£172bn
Value of construction output, our main customer (UK)



81,000
People employed in the industry (UK)

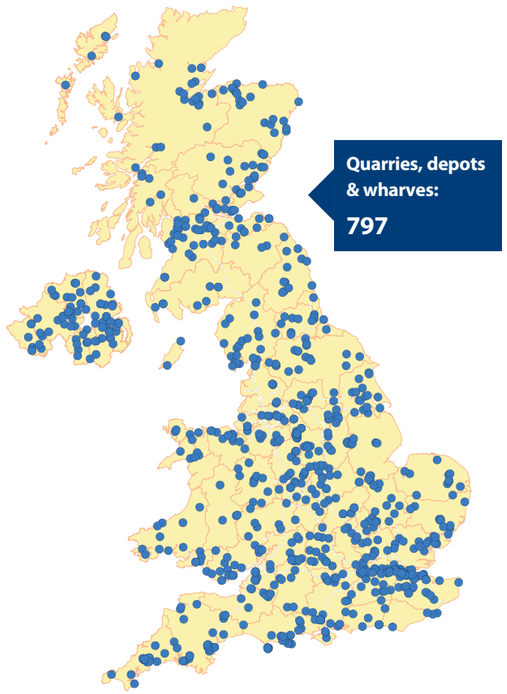


3.5m
Jobs supported in our supply chain (UK)

1.a: Minerals and mineral products sales in Great Britain, 2018 (*Million tonnes*)

CONSTRUCTION USES		**378.9**
Aggregates		**251.0**
of which:	Crushed rock	117.3
	Sand & gravel – land won	48.9
	Sand & gravel – marine	13.7
	Recycled & secondary	71.0
Cementitious[a]		**15.2**
of which:	Cement	11.7
	Other cementitious materials (Fly ash, GGBS)	3.4
Ready-mixed concrete[b]		**54.2**
Concrete products		**32.0**
Asphalt		**25.4**
Dimension stone[c]		**1.0**
NON-CONSTRUCTION USES		**21.6**
Limestone & dolomite[c]		**14.9**
of which:	Industrial lime	1.2
	Agricultural lime[c]	1.6
Industrial sand		**4.9**
China clay[a]		**1.0**
Ball clay[a]		**0.9**
ALL CONSTRUCTION AND NON-CONSTRUCTION USES		**400.6**

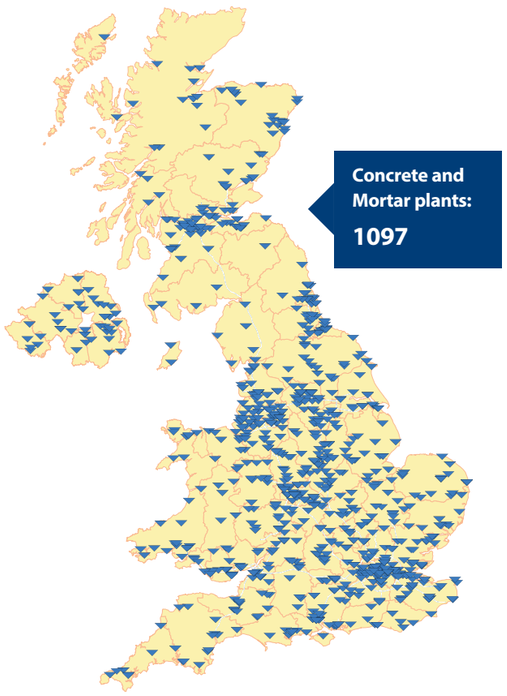
[a] Includes Northern Ireland. [b] Converted using 2.38 tonnes per cubic metre of ready-mixed concrete. [c] Latest data available is for 2014.

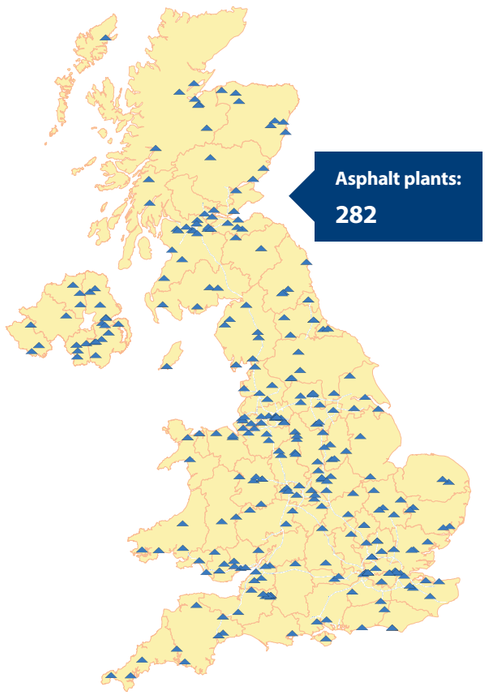


1.b: Number of MPA member active sites and plants, 2019

Crushed rock quarries	**263**
Sand & gravel quarries	**270**
Depots or wharves	**159**
Railheads	**33**
Recycling plants	**131**
Cement quarries and plants	**23**
Ready-mixed concrete plants	**874**
Precast concrete plants	**173**
Lime quarries	**7**
Asphalt plants	**282**
Mortar plants	**50**
Dimension stone quarries	**40**
Silica sand quarries	**17**
Slag plants	**6**
Other minerals quarries	**41**
TOTAL	**2,369**

Source: MPA.





2 An essential industry

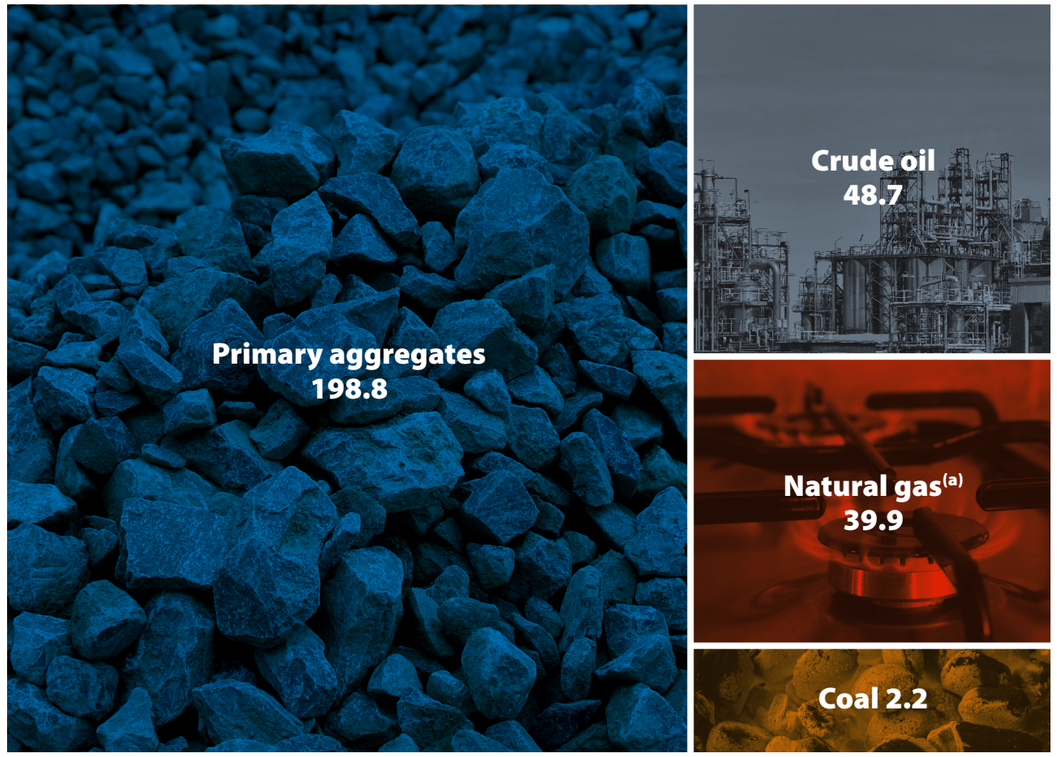
2.1 Mineral production

The Mineral Products Industry is an essential enabling sector of the UK economy, which has a broad positive impact on overall economic activity. As the largest element of the construction supply chain, a supplier of key raw materials and products to many other industries, and the largest material flow in the UK economy, a healthy domestic Mineral Products Industry is vital for the UK.

The majority of the industry's output is used in the UK construction industry – improving our housing stock, transport networks, commercial and industrial buildings, energy and water infrastructure, schools and hospitals. Non-construction markets are also important, including many of the above sectors, as well as iron and steel manufacture, ceramics, paper, glass manufacture, agriculture and horticulture, cleaning power station emissions and food and pharmaceuticals. In 2019, there were approximately 200 million tonnes of primary aggregates produced in the UK, over twice as much as the volume of energy minerals produced (figure 2.1a).

In 2018, a total of **400 million tonnes** of aggregates, industrial minerals and other manufactured mineral products were produced in Great Britain (table 1.a). This is over **four times the total volume of energy minerals, produced in the UK**. These materials are mostly used in construction and manufacturing, underpinning every activity of the economy by supplying vital raw materials at the heart of UK growth. International trade in minerals and mineral products is limited with, for instance, domestic sources supplying about 85% of the cement market. One exception is industrial lime, for which approximately 25% of total UK production was exported in 2019. A proportion of UK marine sand & gravel, dimension stone and industrial clay production are also exported.

2.1a: UK production of primary aggregates and energy minerals, 2019 (*Million tonnes*)



*[a] Million tonnes of oil equivalent (Mtoe). 1GWh = 8.6*10^(-5) Mtoe. Source: BEIS, MPA calculations.*

Minerals and mineral products are essential to our way of life, future economic growth and Government policy ambition.

MINERALS

Limestone & Dolomite | Igneous Rock | Sandstone | Sand & Gravel | Industrial Clays | Recycled & Secondary Materials

Non-construction

PRODUCTS

- Agricultural lime
- Ball clay
- China clay
- Industrial lime
- Industrial sand

MARKETS

- **Leisure** → Sports grounds, golf courses
- **Glass** → Windows & screens, food containers & tableware, fibreglass, medical tools
- **Iron & Steel** → Remove inpurities, provide heat resistance
- **Agriculture & horticulture** → Contaminated land and soil treatment, fertilisers
- **Ceramics** → Sanitaryware, tableware, wall & floor tiles
- **Foundries** → Ferrous & non-ferrous casting
- **Paper manufacture** → Paper fillers and coatings, pulp
- **Pharmaceuticals** → Medical goods & cosmetics
- **Emissions cleansing** → Capture acidic emissions to air
- **Water treatment** → Purify water, treat wastewater & sewer sludge
- **Biocides** → Surface disinfectant
- **Plastics** → Remove water during manufacturing
- **Food manufacture** → Sugar, food storage
- **Transport safety** → Reflective road markings, rail braking

Construction

PRODUCTS

- Aggregates
- Asphalt
- Cement
- Coal derived fly ash
- Concrete products
- Dimension Stone
- Mortar
- Ready-mixed concrete
- Slag

MARKETS

- **Railways** → HS2, Crossrail, Northern Powerhouse Rail
- **Roads** → Strategic, major and local roads
- **Schools** → Priority School Building Programme
- **Water & sewage utilities** → Thames Tideway, AMP7
- **Bridges & tunnels** → Great Yarmouth Third River Crossing, A303 Stonehenge
- **Homes** → 300,000 new homes each year by 2025
- **Hospitals** → Health Infrastructure Plan, incl. 40 new hospitals
- **Shops** → Town & city regeneration (Bolton, Manchester)
- **Offices** → Crossrail, Bankside Yards (London), Kirkstall Forge (Leeds)
- **Factories & warehouses** → UKBIC (Coventry), Forterra's new brickworks (Leics)
- **Energy generation & nuclear decommisioning** → Hinkley Point C, Sellafield, Hornsea 2
- **Climate change mitigation** → Flood & coastal protection, incl. sustainable drainage systems

6 storey city centre office building

16,480 tonnes of concrete

Typical home

12 tonnes of mortar

200 tonnes of aggregates

Community hospital

53,000 tonnes of concrete

School

15,000 tonnes of concrete

Crossrail

250,000 concrete segements

HS2

25mt of aggregates/minerals

Road – A14 Cambridge to Huntingdon Improvement Scheme

730,000 tonnes of asphalt

2.2 Industry value

The Mineral Products Industry is defined as the extraction of mineral resources, i.e. igneous rock, limestone and dolomite, sandstone, dimension stone, sand & gravel, industrial sand, China clay and Ball clay, and their processing and manufacture into asphalt, cement, concrete (both ready-mixed and precast), industrial and agricultural lime, mortar and slag.

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 **£5.8bn in gross value added** in 2018 (figure 2.2a). The industry had a **turnover of £16.3bn** in 2018, and enabled a further **£596.7bn turnover in industries downstream** of the supply chain.

2.2a: Gross value added generated by the Mineral Products Industry and the supply chain in the UK, 2018 (*£ million*)

Minerals Products Industry, total GVA **5,804**
Minerals Products Industry, total Turnover **16,371**

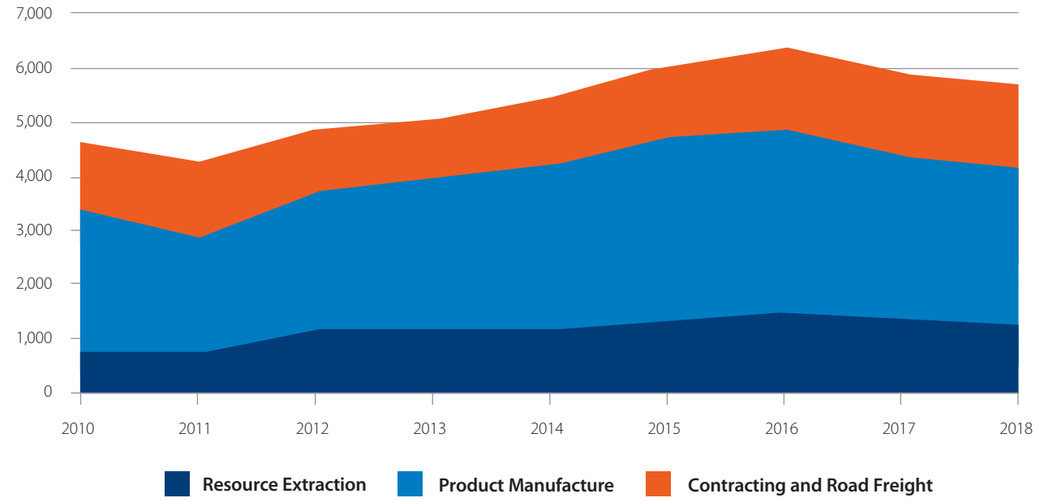
Extraction of Mineral Resources	**1,316**
Rock (igneous rock, limestone & dolomite, sandstone)	680
Sand & gravel, China clay, Ball clay	636
Product Manufacture	**2,913**
Cement, lime and plaster	247
Concrete products for construction	1,163
Ready-mixed concrete & mortar	889
Concrete, plaster and cement products	50
Dimension stone	308
Asphalt	257
Contracting and Road Freight	**1,575**
Asphalt contracting by Mineral Producers	200
Road freight by Mineral Producers	1,375

Direct Markets, total GVA **209,970**
Direct Markets, total Turnover **596,729**

Direct Markets	
Food products	22,742
Leather and related products	346
Paper and paper products	4,097
Chemicals and chemical products	12,868
Basic pharmaceutical products	14,243
Rubber and plastic products	7,961
Other non-metallic mineral products[a]	2,175
Basic metals	4,985
Water	7,552
Sewerage	7,569
Waste	8,783
Construction[b]	116,649

[a] Excludes minerals covered by the MPA membership, which are included in the manufacturing stage of the supply chain. [b] Excludes Asphalt contracting work carried out by mineral producers
Source: ONS, BGS, MPA calculations.

2.2b: Gross value added generated by the Mineral Products Industry in the UK, 2010-18 (*£ million*)

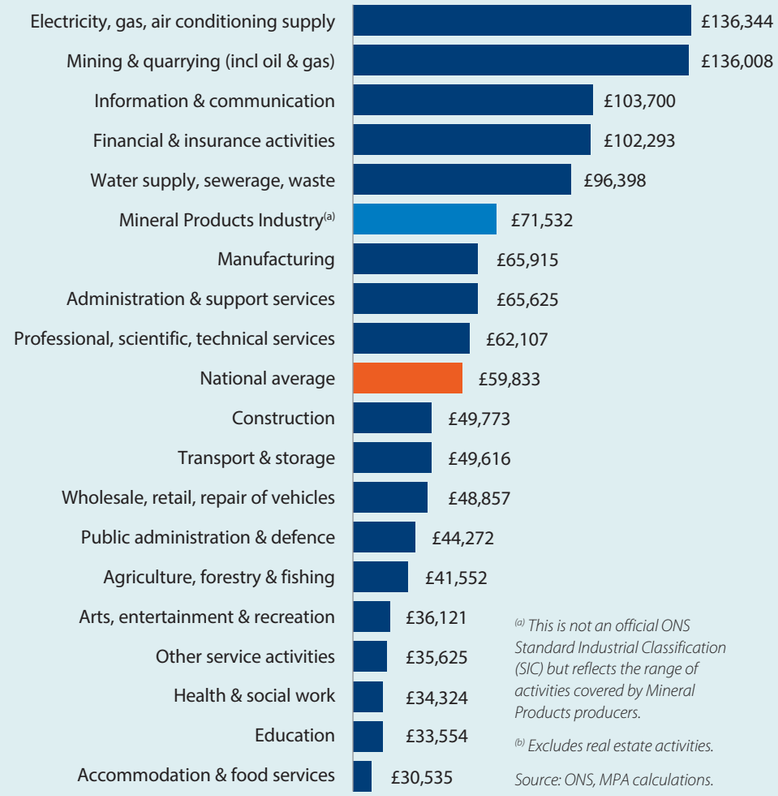


2.3 Productivity

Whilst **directly employing 81,000 people and supporting 3.5 million jobs** through its supply chain in 2018, the Mineral Products Industry is also a highly productive industry: each worker produced over £71,000 in gross value added in 2018, equivalent to 1.2 times the national average (figure 2.3a).



2.3a: UK productivity by industry, 2018[b] (*£ per worker*)



[a] This is not an official ONS Standard Industrial Classification (SIC) but reflects the range of activities covered by Mineral Products producers.

[b] Excludes real estate activities.

Source: ONS, MPA calculations.

3 Mineral Products Profiles

3.1 Aggregates (crushed rock, sand & gravel, recycled and secondaries[1])

Within aggregates, the major supply tonnage 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 geological availability of specific resource types and/or the market demand for individual products.

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 (figure 3.1a). Total 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. This suggests that there remains significant scope for further improvements in minerals products and construction markets.

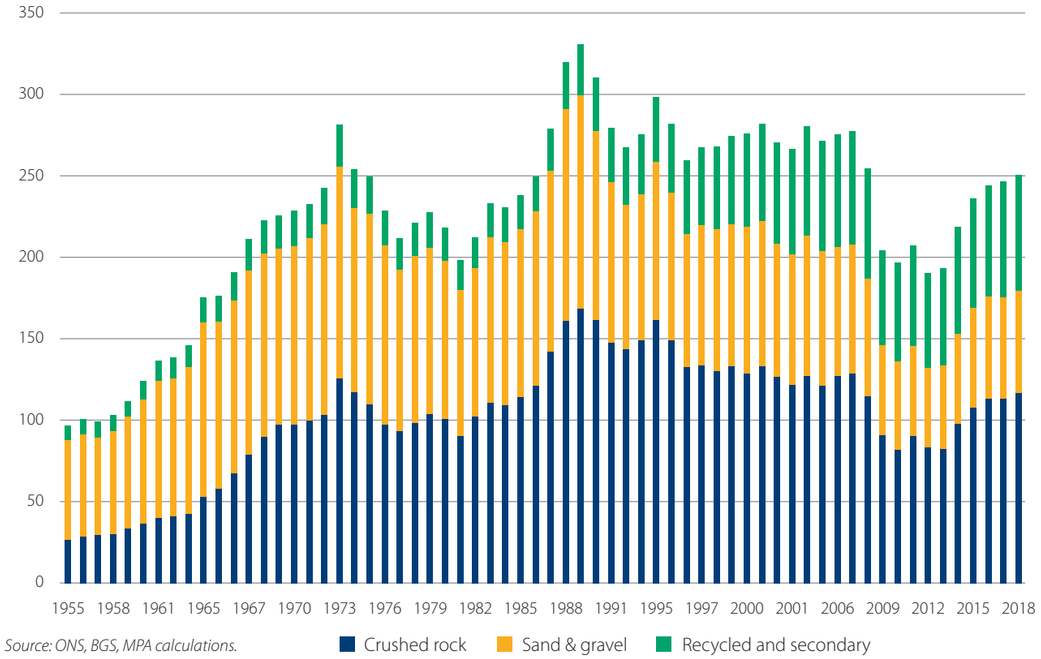
The underlying geology of the UK determines the local availability of mineral products which are only transported long distances when necessary. However, resources are not always distributed evenly and some inter-regional movement is necessary. The South East, for example, has its own supplies of sand & gravel and recycled aggregates, 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. Almost all (97%) of the primary aggregates consumed in London are imported by rail from the East Midlands and South West England, and marine dredged aggregates landed at Thames wharves.

In 2018, marine aggregates satisfied 22% (13.7 million tonnes) of the total construction needs for sand & gravel in Great Britain (figure 3.1b). Marine aggregates also support beach nourishment and contract fill projects in the UK and are also exported overseas for use in construction. Total production of marine sand & gravel for UK construction, exports, beach nourishment and contract fill, shows that total marine aggregates production levels have been consistently lower than the total tonnage permitted across all operators' production licences (figure 3.1f). 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 future changes in market demand that may occur. Multiple licences also ensure dredging areas are near to wharves that supply potential markets.

The biggest use for marine dredged aggregates is the construction market, predominantly for use in ready mixed concrete and concrete products. Aggregates are a high bulk, low cost, commodity and consequently are highly sensitive to transport distances. Where local sources of aggregates 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.

Access to markets relies on the availability of suitable infrastructure to support the import of marine aggregates and crushed rock. Without the presence of suitable, unconstrained wharf and railhead facilities, the balance of supply cannot be maintained. This is why such sites should be subject to safeguarding policies to protect their use, in accordance with the requirements set out in the National Planning Policy Framework.

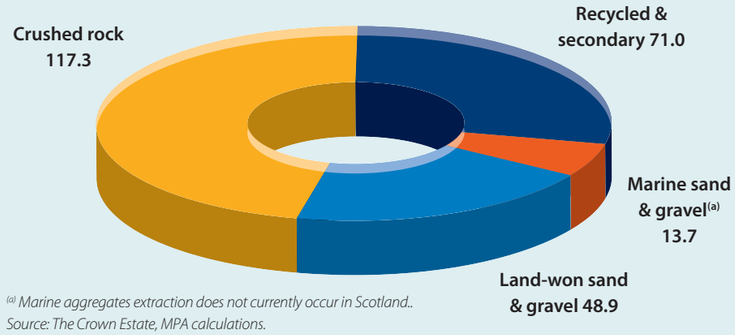
3.1a: Aggregates markets by source of supply in Great Britain, 1955-2018 (*Million tonnes*)



Source: ONS, BGS, MPA calculations.

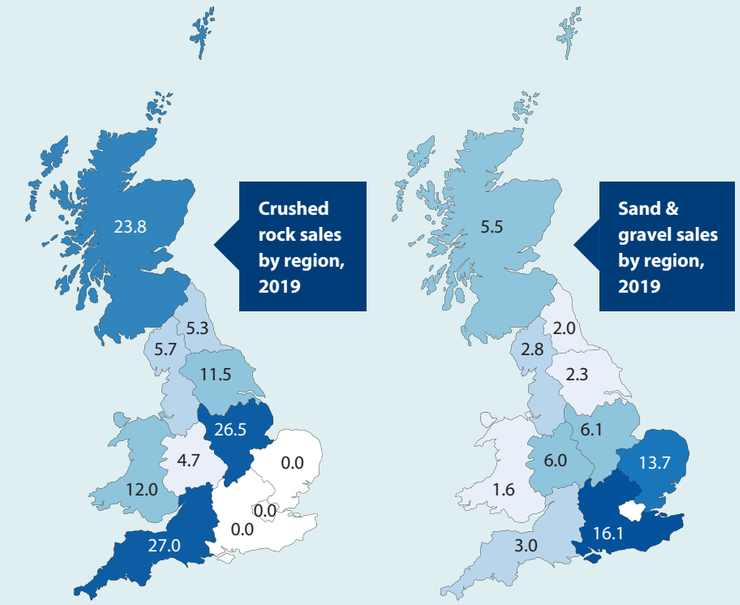
[1] This section provides data for the year 2019 where available. Information on recycled and secondary sources of aggregates was only available up to 2018 at the time of writing.

3.1b: Aggregates supply mix in Great Britain, 2018 (*Million tonnes*)



[a] Marine aggregates extraction does not currently occur in Scotland..
Source: The Crown Estate, MPA calculations.

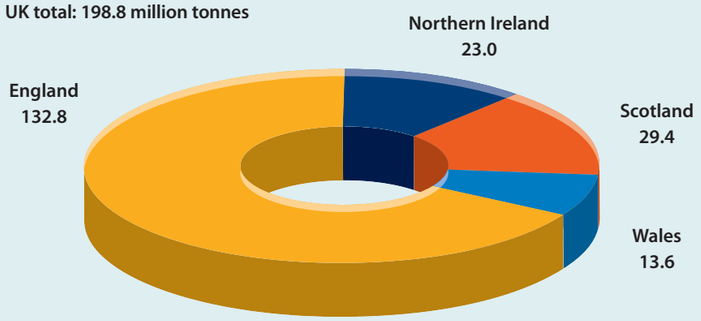
3.1c: Primary aggregates sales by region in Great Britain, 2019 (*Million tonnes*)



[a] Includes marine-dredged materials Source: BGS, MPA Calculations.

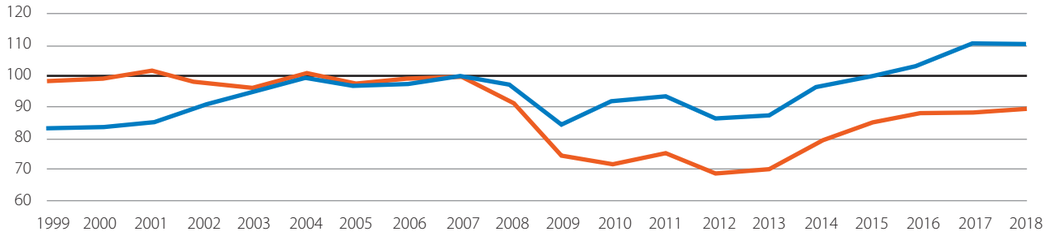
3.1d: UK primary aggregates sales, 2019 (*Million tonnes*)

UK total: 198.8 million tonnes



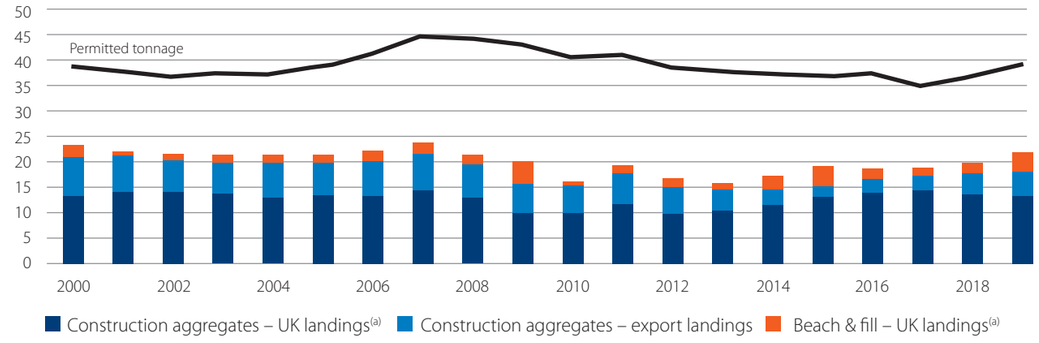
Source: BGS, MPA Calculations.

3.1e: Construction activity and aggregates supply in Great Britain, 1999-2018 (*2007=100*)



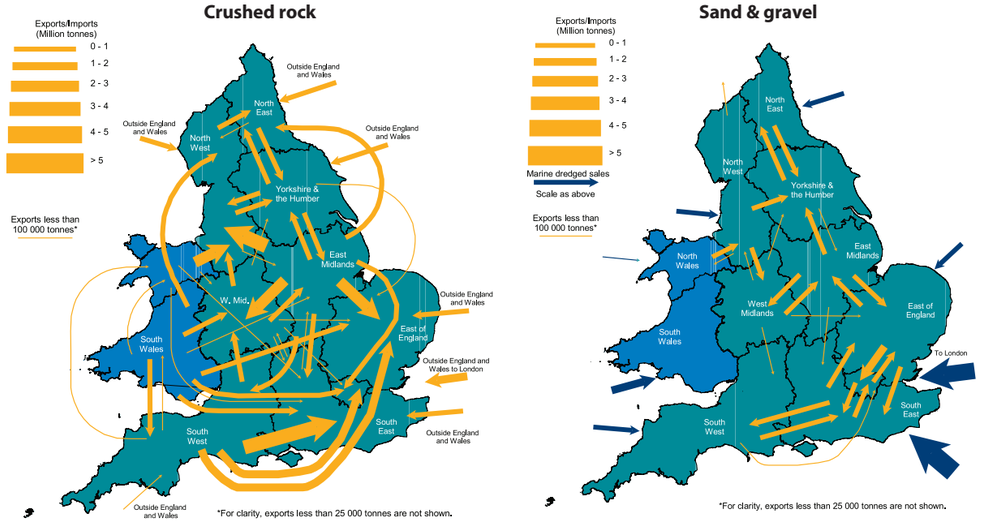
Source: ONS, BGS, MPA calculations.

3.1f: Marine sand & gravel landings in the UK, 2000-19 (*Million tonnes*)



[a] Marine aggregates extraction does not currently occur in Scotland. Source: The Crown Estate.

3.1g: Interregional flows of primary aggregates in England and Wales, 2014



Note: MPA does not hold data on regional flows. These maps are reproduced from the original source. © Crown Copyright – Collation of the results of the 2014 Aggregate Minerals survey for England and Wales.

3.2 Cementitious

Cement is the key component in producing ready-mixed concrete, precast concrete and mortar (figure 3.2a). 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 in 2019 remained 4% lower than in 2007.

Cement is made by first making cement clinker by crushing, blending and firing limestone or chalk with small amounts of other natural materials, such as clay or shale, to a temperature of 1450ºC.

The first reaction is to drive off moisture and then reduce calcium carbonate ($CaCO_3$) from the limestone or chalk, to calcium oxide (CaO) where this calcination occurs around 950ºC. Chalk has a higher natural moisture content and hence a higher energy penalty than harder limestones.

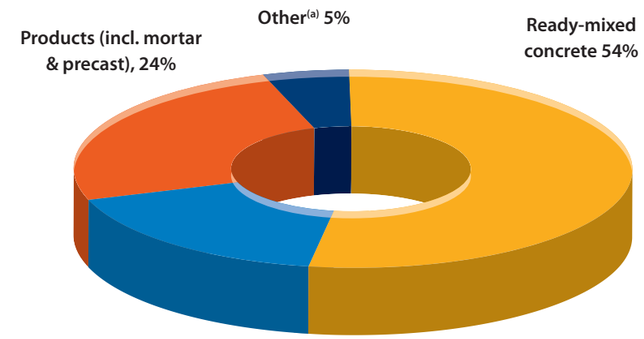
The materials then combine further at the higher temperature to produce calcium silicates, calcium aluminates and calcium aluminoferrites in nodules of clinker. As the final step in (CEM I) cement making, the clinker is ground to a powder with about 4%-5% gypsum, added to control the setting time of 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[1], limestone or ground granulated blast furnace slag[2];
- **CEM III** – is a cement containing between 36% and 95% ground granulated blast furnace slag.

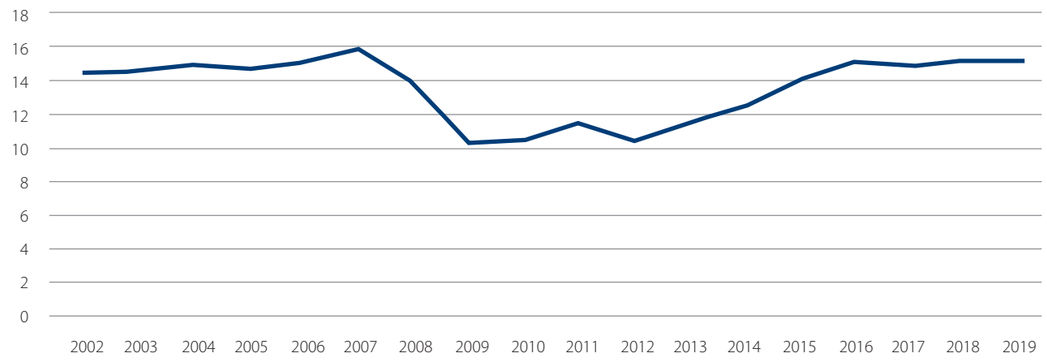
There are a variety of cement products designed for specific end-uses.

3.2a: Domestic cement sales by channel in the UK, 2019



[a] Includes cement that goes into soil stabilisation, special grout formulation, diaphragm wall grouts & other applications that do not fall into either ready-mixed concrete products or merchant. Source: MPA.

3.2b: MPA cementitious sales in Great Britain, 2002-19 [a] [b] (*Million tonnes*)



[a] Includes Northern Ireland from 2015. [b] Includes imports, pulverised fuel ash and granulated blast furnace slag. Source: MPA.

[1] Fly ash is a by-product from coal fired power stations.
[2] Blast furnace slag is a by-product of iron production and is granulated and ground for use in cement.

3.3 Ready-mixed concrete

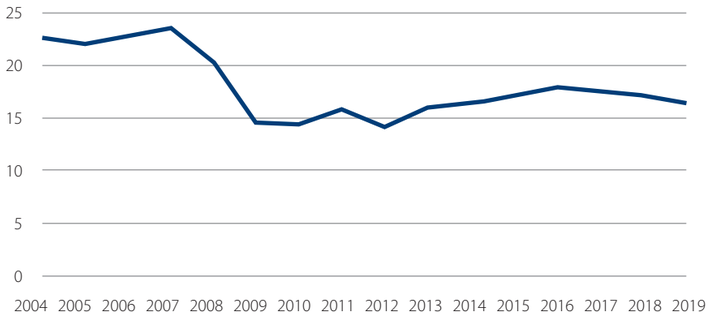
Concrete is essential for our economy and our way of life, now and in the future. New homes, schools, hospitals, workplaces, roads and railways as well as the infrastructure that provides us with clean water, sanitation and low carbon energy, all depend on concrete and creates the demand for it.

Its unique characteristics, versatility, strength, fire resistance durability and energy efficiency provides us with safe secure and comfortable homes and resilient infrastructure that can last for generations.

Concrete is a sustainably produced local material, average delivery distance is just 8 miles, and with an established national supply chain that creates jobs and supports communities throughout GB.

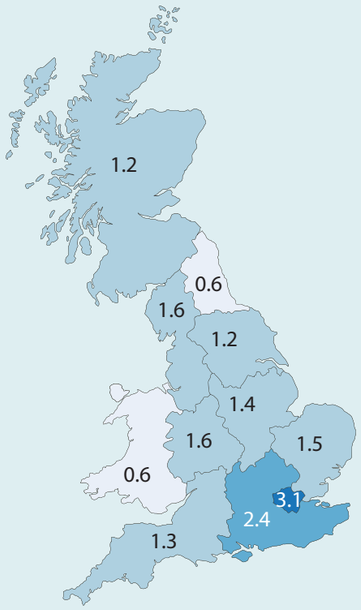
Demand for ready-mixed concrete is closely aligned with both construction activity and the general economy. Reflecting the general economy, there continues to be nearly three times more ready-mixed concrete supplied in London and the South East than in most other regions in Great Britain (figure 3.3b).

3.3a: MPA ready-mixed concrete[a] sales in Great Britain, 2004-19 (*Million cubic metres*)



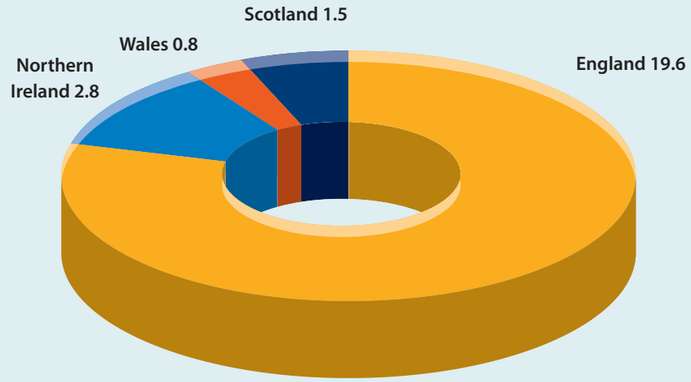
[a] Includes ready-mixed produced from fixed and site plants. Source: MPA.

3.3b: MPA ready-mixed concrete[a] sales by region in Great Britain, 2019 (*Million cubic metres*)



[a] Includes ready-mixed produced from fixed and site plants. Source: MPA.

3.3c: Estimated UK ready-mixed concrete sales[a], 2019 (*Million cubic metres*)
UK total: 24.7 million cubic metres



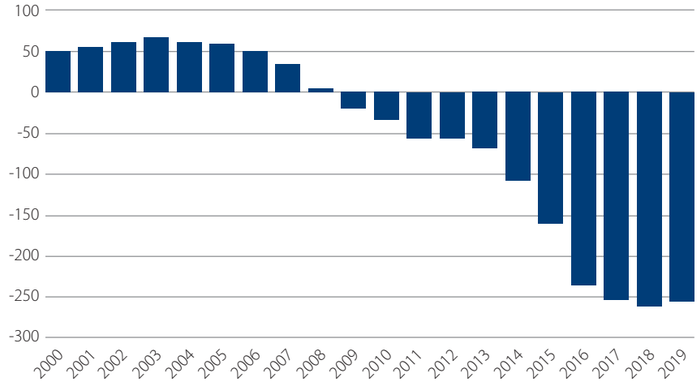
[a] Based on the assumption that MPA sales represent 75% of the total GB market. Includes ready-mixed produced from fixed and site plants. Source: MPA.



3.4 Precast concrete

Precast concrete includes concrete elements of any size that are cast in a factory – from blocks to bridge beams. Precast elements are fundamental to 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 figure 3.4a 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 past decade. The UK has been a net importer of concrete products since 2009.

3.4a: UK concrete products trade balance, 2000-19 (*£ million, current prices*)



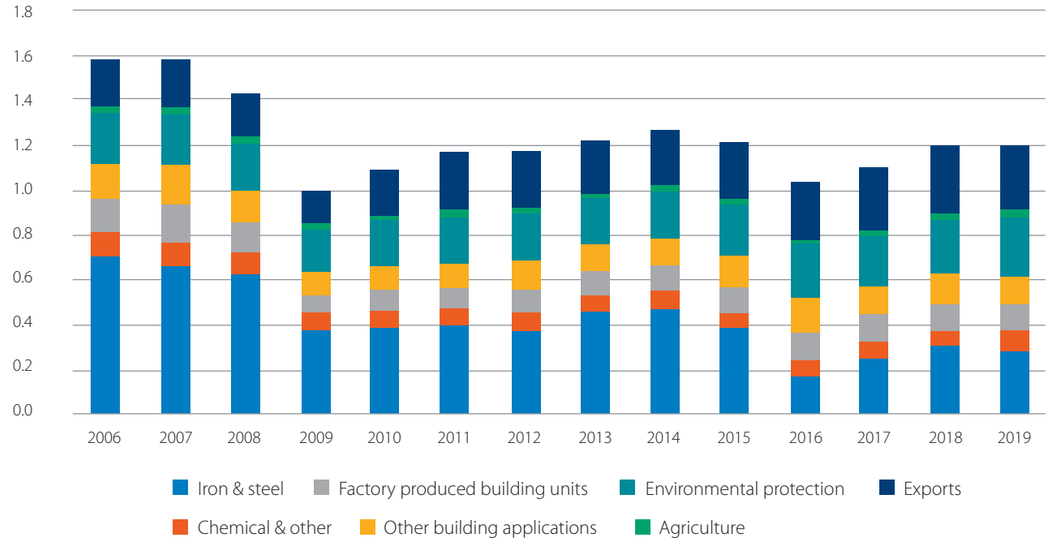
Source: MPA.

3.5 Lime

3.5a 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 25% of total industrial lime sales exported in 2019 (figure 3.5a).

3.5a: Industrial lime sales by end-usage in Great Britain, 2006-19 (*Million tonnes*)



Source: British Lime Association.

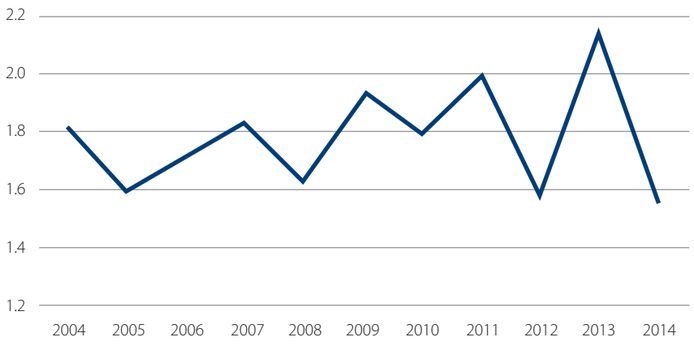
3.5b Agricultural lime

Quarried agricultural lime remains UK agriculture's principal tool in moderating the effects of climate change, excess soil acidity, and supplying essential calcium and calcium magnesium plant nutrient.

In addition to inhibiting environments conducive to the free availability of toxic elements, agricultural lime plays a key role in protecting nature's greatest asset, the soil, maintaining a healthy, sustainable, and productive environment essential to meeting the challenges of future food security.

National survey data indicates declining soil pH levels and that twice as much agricultural lime as current applications needs to be applied to UK farmland to revert the rate of increasing soil acidity.

3.5b: Sales of agricultural lime in Great Britain, 2004-14[a] [b] (*Million tonnes*)

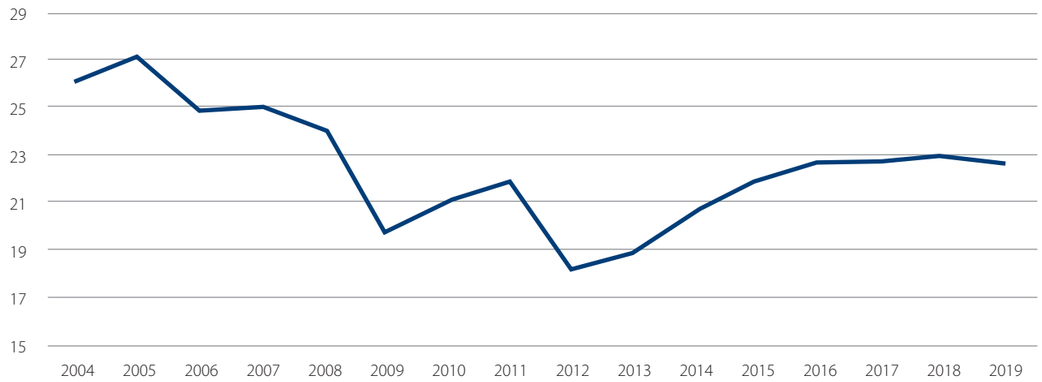


[a] Sum of limestone, dolomite & chalk. Due to the cessation of the Annual Raised Mineral Inquiry survey, which used to be carried out by the Office for National Statistics, the latest official statistics available only cover sales volumes up to 2014. MPA estimates annual production of agricultural lime of approximately 1.8 million tonnes between 2015 and 2018. Source: ONS.

3.6 Asphalt

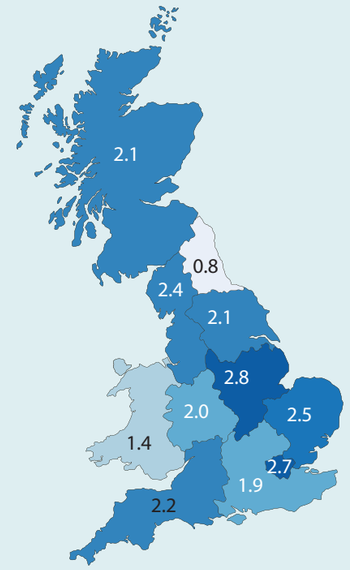
Roads are the economic and social arteries of the nation, ensuring door to door routes for delivery of goods and services. They are the primary means of access to all parts of integrated transport networks and as such, we depend upon asphalt for road construction and maintenance. This was recognised during the early days of the Covid-19 pandemic, when roadworkers were acknowledged by Government as key workers, supported by this essential material supply chain. Asphalt is produced in a network of local plants, which serve both the local and national road networks. Asphalt provides sustainable solutions as it is almost uniquely 100% reusable and recyclable back into new asphalt and utilises other recycling streams, whilst delivering cost effective, safe, comfortable and quiet road surfaces. Research and innovation are thriving to further enhance the durability and sustainable credentials of asphalt materials to support road user and owner demands. Following the recession, these markets declined very steeply in 2012, but have picked up since 2013. Asphalt sales rose 20% between 2013 and 2019, but remain 9% below the pre-recession levels in 2007 (figure 3.6a). Road improvement and maintenance schemes will be a necessary element of the UK's Build Back Better policy.

3.6a: MPA asphalt sales in Great Britain, 2004-19 (*Million tonnes*)



Source: MPA.

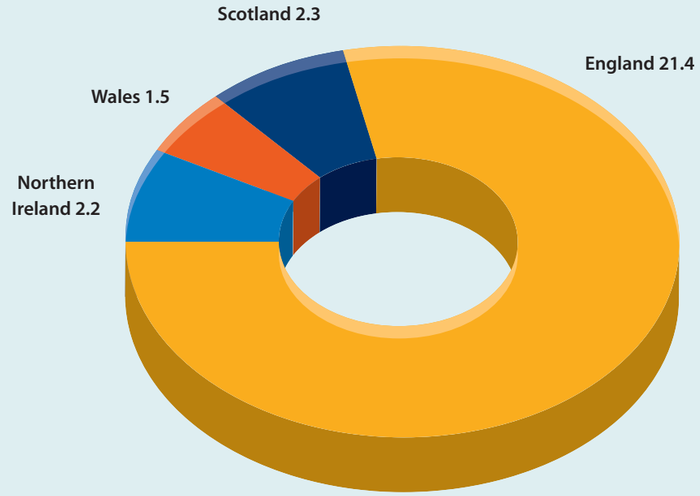
3.6b: MPA Asphalt sales by region in Great Britain (*Million tonnes*)



Source: MPA.

3.6c: Estimated total UK asphalt sales, 2019[a] (*Million tonnes*)

UK total: 27.4 million tonnes



[a] Based on the assumption that MPA sales represent 90% of the total GB market for asphalt. Source: QPANI, MPA.

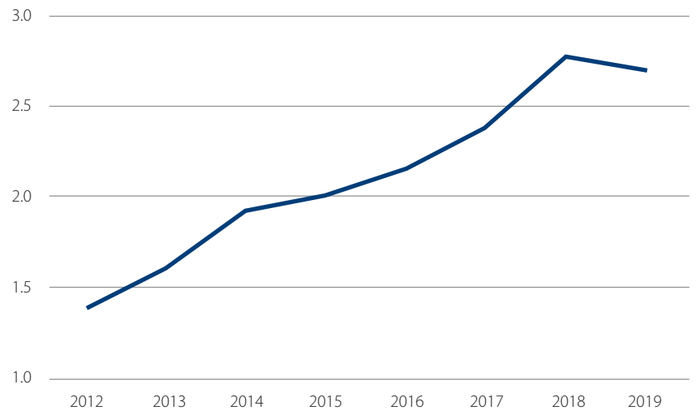
3.7 Mortar

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 consistent quality building products in the development of our built environment.



3.7a: MPA mortar sales in Great Britain, 2012-19 (*Million tonnes*)



Source: MPA.

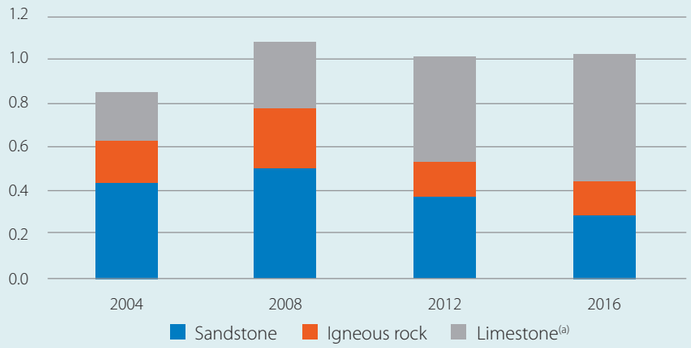
3.8 Dimension stone

The UK industry for dimension stone plays an important role in ensuring that the unique local characteristics of natural stone-built areas of the UK are maintained.

In addition, there is demand from the heritage sector and from the prestige development market both at home and overseas.

Annual production continues from quarries in Great Britain at about 1 million tonnes (figure 3.8a), but imports from China and India continue to impact on the overall market.

3.8a: Sales of dimension stone in Great Britain (selected years) (*Million tonnes*)



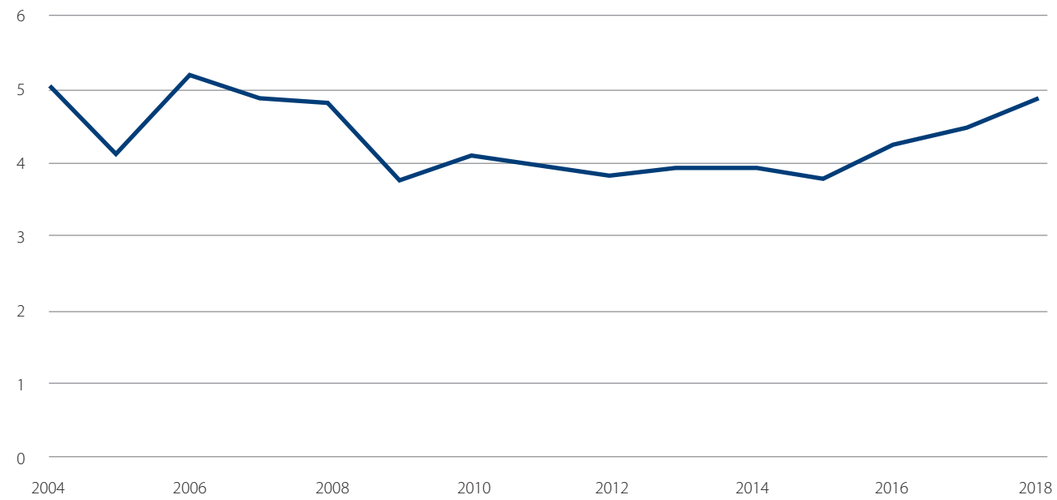
[a] Includes dolomite. Due to the cessation of the Annual Raised Mineral Inquiry survey, which used to be carried out by the Office for National Statistics, the latest statistics available only cover sales volumes up to 2014. Source: ONS.

3.9 Industrial sand

As well as being used for glass manufacture, paints, plastics and foundry moulds, high purity silica sands are also used in a wide range of essential industrial applications. After declining significantly between 2006 and 2009, in light of changes in the UK heavy industry and manufacturing sectors, the production of industrial sand in Great Britain stabilised at about 4 million tonnes per year until 2016, rising gradually to 4.9 million tonnes in 2017-18 (figure 3.9a).

Historical applications such as heavy industry have been replaced by more diverse applications in markets such as food manufacture, water purification, rail braking, horticulture and sports and leisure.

3.9a: Sales of industrial sand in Great Britain, 2004-18 (*Million tonnes*)



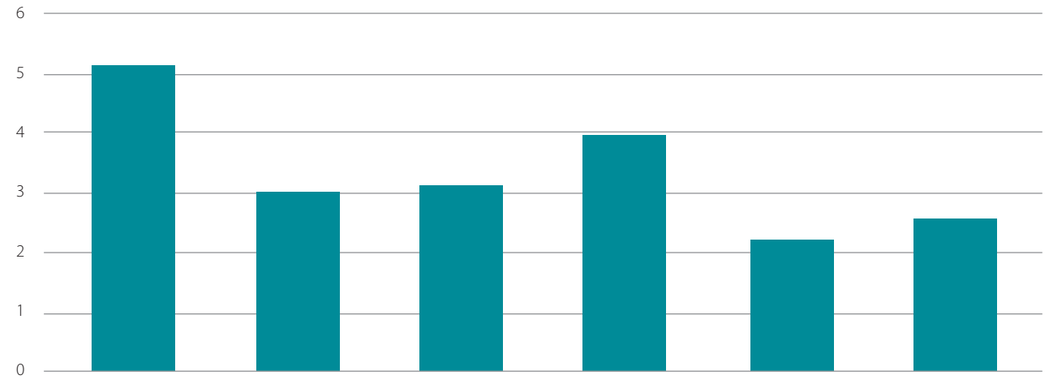
Source: BGS.

3.10 Slag

Slag is produced during the manufacture of iron and steel, and is processed into a variety of products, which can be used in many applications ranging from aggregates for construction products, to water treatment, soil conditioners and cementitious materials. The cementitious properties of blast furnace slag were discovered in the late 19th century and it has been widely used in cement manufacture for over 100 years.

In the UK, ground granulated blast furnace slag (GGBS) generally replaces between 20% and 80% of the normal Portland cement. Air cooled blast furnace and steel slags are used as aggregates in construction products, with the latter playing an important role as a high skid resistant surfacing aggregate in maintaining the safety of our road network. They are also used in the treatment of waste water and for soil remediation in agricultural markets.

3.10a: Sales of slag in the UK (selected years) (*Million tonnes*)



Source: MPA.

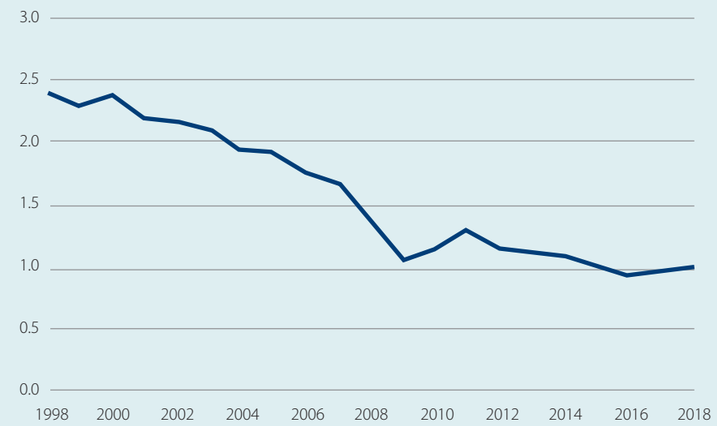
3.11 Industrial clays

3.11a China clay

Although a small decline in the UK production of China clay has occurred in recent years, the value to the UK economy has remained constant with a small increase in the value of the export market. China clay or Kaolin has a wide range of industrial markets including ceramics, paper and specialist applications such as fillers for pharmaceuticals, paints, adhesives and animal feeds.

Critical properties are whiteness and grain size and shape, with the latter affecting other factors such strength, plasticity and fluidity which are critical to meet a wide range of customer specifications.

3.11a: Sales of China clay in the UK, 1998-2018 (*Million tonnes*)



Source: BGS.

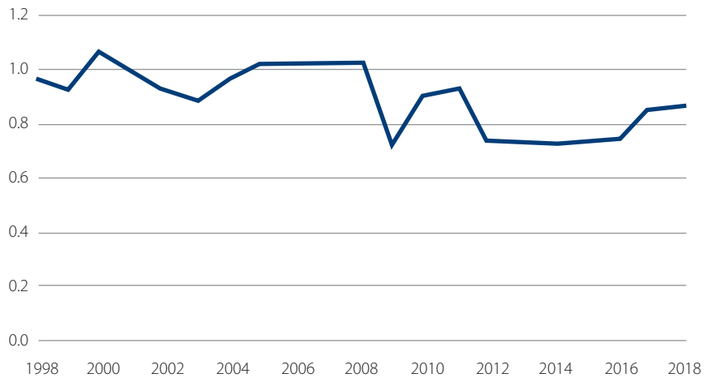
3.11b Ball clay

Also known as plastic clays, Ball clays are used principally in the ceramics industry for industrial applications, including sanitaryware, tile manufacture and tableware.

Routinely blended from different clay horizons and sources, their ability to flow into moulds, their firing properties and inherent strength ensures UK Ball clays are much sought after global commodity in the manufacture of items such as sinks, toilets, wall and floor tiles.

Increased production has largely fed an increase in a widening export market, to Europe, the Middle and Far East and the Americas.

3.11b: Sales of Ball clay in the UK, 1998-2018 (*Million tonnes*)



Source: BGS.

3.12 Coal Derived Fly Ash

Coal Derived Fly Ash (CDFA) is the mineral component left over after pulverised coal is burned in coal fired power stations. It typically accounts for some 10%–15% of the coal burned and is very different in terms of chemistry and physical properties to "incinerator" ashes. This secondary mineral resource comprises of oxides of silica, alumina and iron encapsulated in glassy spheres. The glassy spheres have pozzolanic properties, which means that they form cement-like properties when in the presence of alkalis, such as those which are present when Portland cement is mixed with water.

Although coal fired energy generation is being phased out, the historic production of CDFA significantly exceeded demand, so the surplus was mixed with water to avoid dust and then placed in designated landfill sites or lagoons. Once placed in landfill sites or lagoons, there is virtually no change in the chemistry or physical properties – even after decades of storage – and such resources are estimated to be well in excess of 100 million tonnes.

CDFA can be used as a secondary aggregate to produce autoclaved aerated blocks, or as grouts for soil stabilisation. Current research focus on evaluating the long-term durability characteristics of CDFA when used as a supplementary cementitious material in concrete. Indicative consumption data for 2017 and 2018 is around 1.8 million tonnes per annum, of which 0.3 million tonnes is imported.



Gale Common near the former Eggborough Power Station, North Yorkshire could supply up to one million tonnes of fly ash per year for 25 years.

4 Long-Term Aggregates Supply

The geological distribution of resources means that 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 for construction.

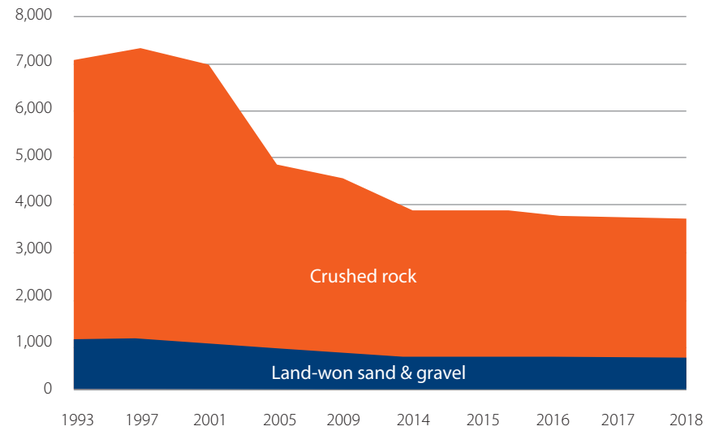
Figure 4.a indicates permitted reserves of aggregates in England and Wales since the early 1990s. However, permitted reserve 'replenishment rates' are a more meaningful indicator of long-term availability of supply. If the amount of aggregates receiving planning permission equals the level of production, the replenishment rate is 100%.



Figure 4.b indicates that whilst replenishment rates for crushed rock have been close to parity in recent years across Great Britain, sand & gravel is being replaced at a much slower pace: for every 100 tonnes of sand & gravel used, only 63 tonnes are being replaced through new planning permissions, which has resulted in significant decline in permitted reserves of sand & gravel over the last 15 years.

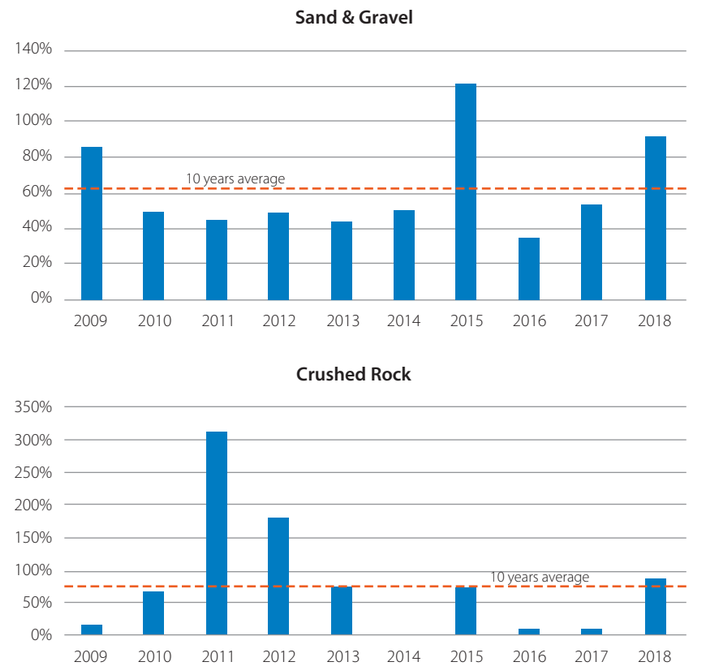
The implication of long-term replenishment rates below 100% is that local shortages of supply may become apparent. Evidence from Local Aggregates Assessments and Local Plan development suggests that this is beginning to happen in parts of Yorkshire, the South West, the South East, the North West, and the West Midlands.

4.a: Permitted reserves of land-won primary aggregates in England and Wales, 1993-2018[a] (*Million tonnes*)



[a] Historical tonnages are from the Aggregate Minerals surveys, a 4-yearly survey which has been undertaken since 1973. MPA estimates from 2015. Source: BGS, MPA calculations.

4.b: Replenishment rates[a] in Great Britain, 2009-18



[a] If the reserves of aggregates delivered through planning permission equals the level of production, the replenishment rate would be 100%. Source: MPA.

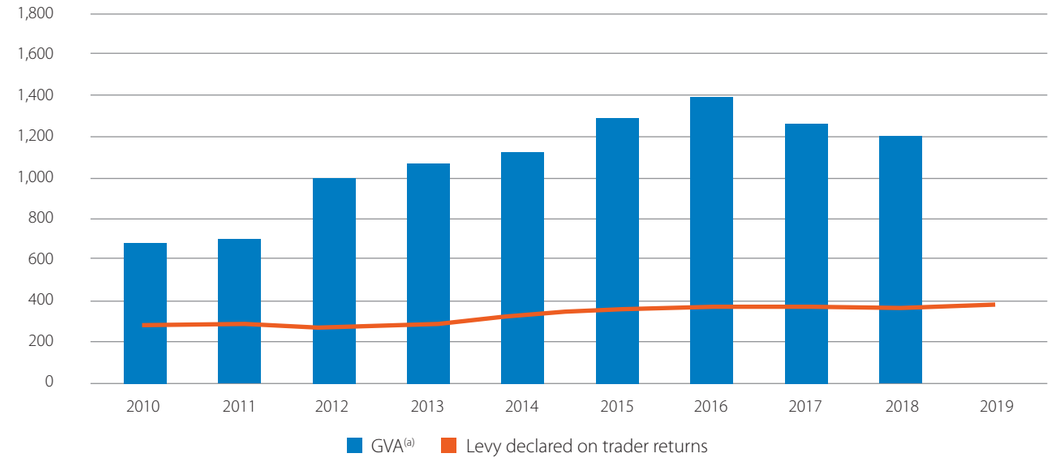
5 Industry Taxation

At the extraction stage, the annual cost of the Aggregates Levy reached £397m in 2019 (figure 5.a).

More broadly, the mineral products industry is also in the scope of the UK Emissions Trading System, Climate Change Agreements linked to the UK Climate Change Levy, Streamlined Energy and Carbon Reporting and Energy Saving Opportunity Scheme, all of which are focused on carbon reduction or energy efficiency. In addition, the industry has to manage the indirect impact of measures and associated costs related to generating and supplying energy used by the industry. It is currently unknown what carbon pricing policy will be in place from 1st January 2021 when the UK exits the EU. The options include a stand-alone UK Emissions Trading System (UK ETS) or a UK ETS linked to EU ETS or a Carbon Emission Tax (CET).

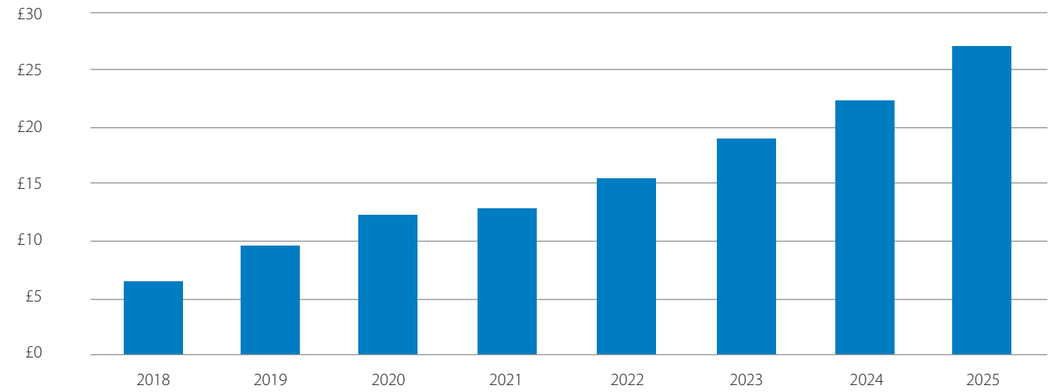
Climate change and energy measures in 2019 were estimated to be around £10 per tonne of cement produced (figure 5.b). The indirect cost of policies such as carbon pricing (UK ETS or CET) and renewables policies such as contracts for difference are expected to increase further over the coming years, so that the cost to cement producers could reach £20-25 per tonne as early as 2025.

5.a: Aggregates Levy payments to Government, 2010-19 (*£ million*)



[a] Includes the gross value added generated by the quarrying of rock (chalk, igneous rock, limestone & dolomite, sandstone) and sand & gravel. Source: HMRC, MPA calculations.

5.b: Estimated cost of energy and climate change measures for the UK cement industry, 2018-25 (*Gross cost per tonne of cement, i.e. before any compensation is applied*)



Source: MPA.

6 Environment and Sustainability

6.1 Recycling and secondary aggregates

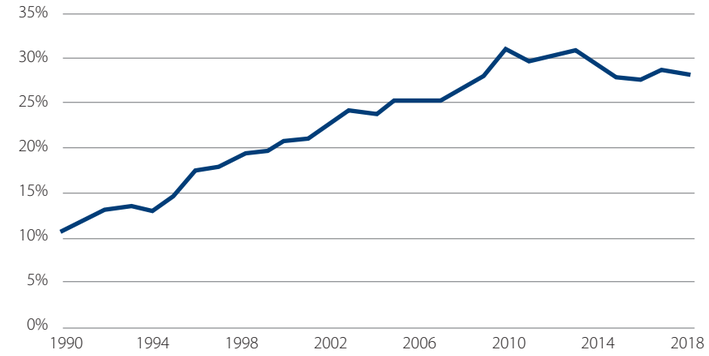
Recycled and secondary materials accounted for 28% of total aggregates supply in Great Britain in 2018 (figure 6.1a).

Recycled aggregates are the product of processing inert construction and demolition waste, asphalt planings and used railway ballasts into construction aggregates. Just as primary aggregates, these materials conform to European aggregate standards and national specifications, and make a significant contribution to total aggregates demand.

Secondary materials are derived from other industrial processes. This can include mineral extraction operations, such as sand and crushed rock material from ball clay and china clay production, or waste from slate production. Other sources of secondary materials include blast furnace and steel slags, incinerator bottom ash (IBA), furnace bottom ash (FBA), coal-derived fly ash (CDFA) and crushed glass sand. Collectively, these sources also contribute significantly to the total aggregates demand and are used, predominately, in the lower layers of road pavements (but increasingly in higher value road applications), but also in some concrete manufacture and a range of other construction applications.

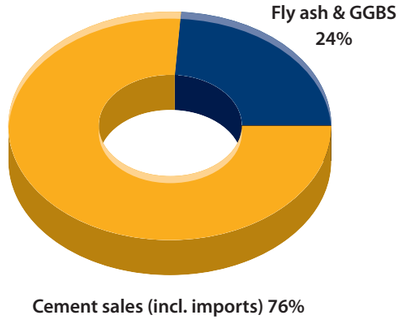
Sales of Portland cement are supplemented by the use of other cementitious materials including ground granulated blast furnace slag (GGBS) and fly ash (figure 6.1b). These cementitious materials are supplied either as a component of blended cements or directly to concrete manufacturing facilities.

6.1a: Recycled and secondary materials in total aggregates sales in Great Britain, 1990-2018



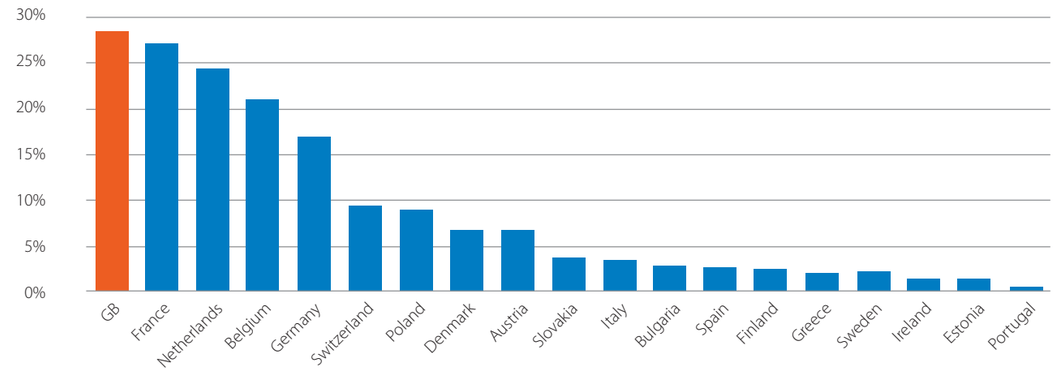
Source: MPA.

6.1b: GGBS and fly ash in the UK cementitious market, 2019



Source: MPA.

6.1c: Contribution of recycled[a] and secondary materials in total aggregates consumption across Europe in 2018

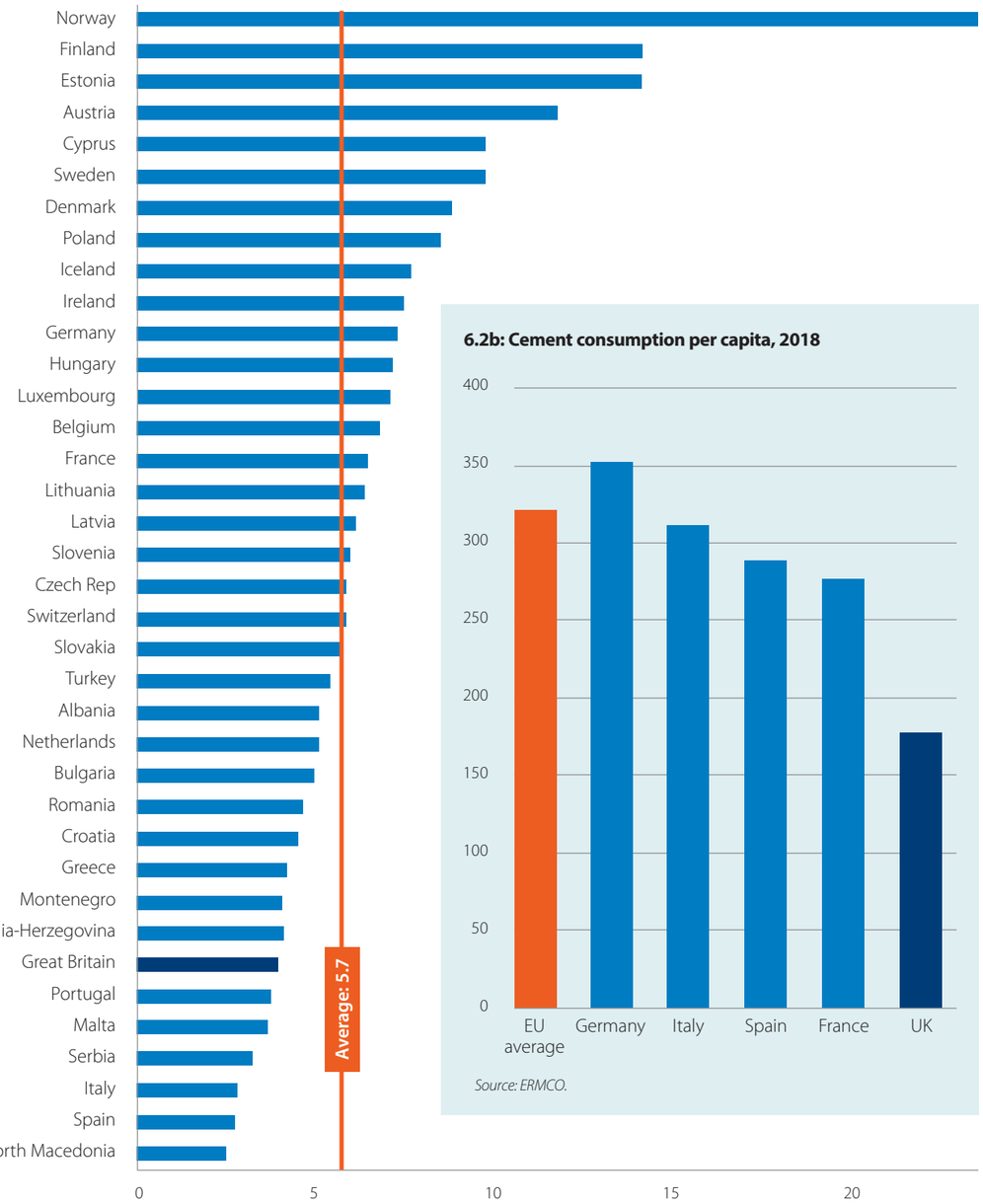


[a] Includes manufactured, recycled (fixed & mobile) and aggregates re-used on site. Source: UEPG, MPA calculations.

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. Figures 6.2a and 6.2b below indicate that the use of aggregates and cement per capita is 32% and 45% respectively below the European average.

6.2a: Total aggregates[a] production per capita, 2018 (*Tonnes per capita*)



6.2b: Cement consumption per capita, 2018

Source: ERMCO.

[a] Includes primary, manufactured, recycled (fixed & mobile) and aggregates re-used on site. Source: UEPG, MPA.

6.3 Carbon emissions

The extraction of minerals, processing and transport to market generate carbon emissions, although these will depend on the material considered, the method of extraction used and transport required. Based on 2016 data, WWF[3] estimates that carbon emissions from 'Other mining and quarrying products' (i.e. non-energy and metals extraction) activities represented just 0.2% of total UK production emissions, and stood 46% below levels of emissions in 1990.

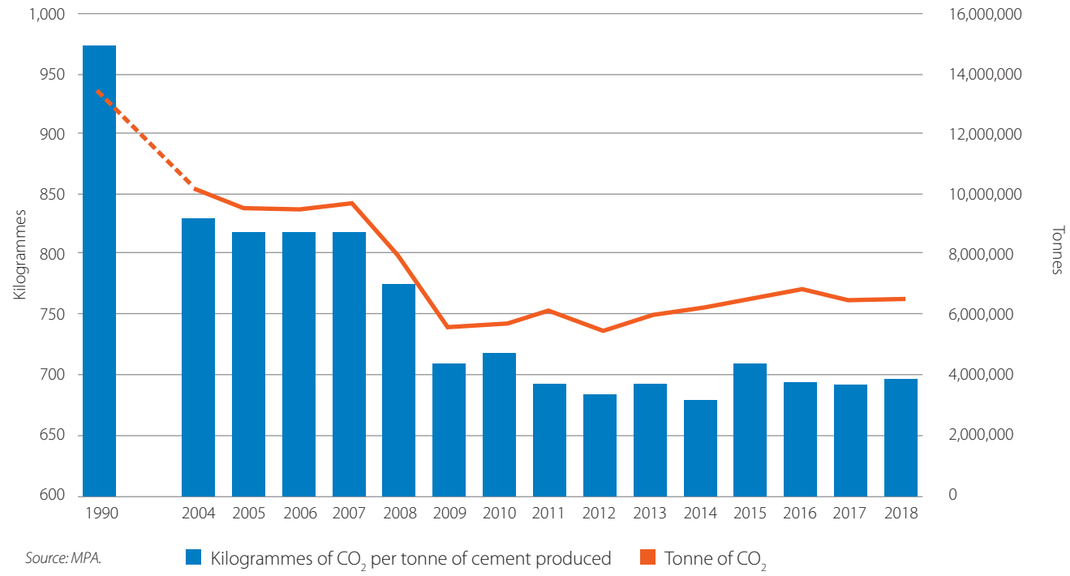
Cement manufacture is energy and carbon dioxide intensive but because of its unique properties only a relatively small amount is needed in concrete. The UK concrete and cement industry has a strong track record having already delivered a 53% reduction in absolute carbon dioxide emissions since 1990 – decarbonising faster than the UK economy as a whole.

UK manufacturers achieved this substantial decarbonisation through heavy investment and a progressive move toward using alternative waste-derived fuels and increasing the use of by-products and waste from other industries to substitute for clinker.

Clinker is the principal ingredient in cement. Clinker production is the main source of carbon dioxide emissions. In 2018, the sector took 43% of its kiln fuel thermal input from waste derived sources, avoiding the use of just under 500,000 tonnes of coal. In addition, cement manufacturers replaced 7% of their raw materials with waste derived alternatives. The industry is committed to building on this early action. This is why the UK concrete and cement industry prepared its roadmap in 2020 that sets out a clear pathway to reduce emissions to beyond net zero.

Other Mineral Products are also progressing on decarbonisation. For example, Warm Mix Asphalt technologies reduce production of CO_2 emissions in the region of 15%, depending on the technology implemented. The full benefits rely on other influences in the specification and procurement chain. Further reductions on embodied carbon can be achieved by increasing the addition rates of recycled asphalt back in to asphalt, currently averaging around 15%. Carbon reduced products can also provide delivery efficiencies, ensuring networks are returned to service sooner, thereby reducing delays and emissions generated by traffic in congestion. High quality road construction and maintenance can further reduce emissions from vehicles through improving fuel efficiency, and for Electric Vehicles (EVs), by extending range. It has been calculated that an upgrade of one third of the entire road network of Europe by 2030 could lead to yearly savings of 14 million tonnes of vehicle-generated CO_2[4]. Creating more durable and resilient material solutions also reduces the number of maintenance interventions and, hence, carbon demand required in a road's whole life cycle.

6.3a: Carbon dioxide emissions from UK cement production plants



Source: MPA.

[3] WWF, 2020. [4] EAPA, 2016.

6.4 MPA National Nature Park

The minerals industry is uniquely placed to contribute to delivery of national and local biodiversity targets and objectives, including net gain and nature recovery. At least 8,300 hectares of UK priority habitats have been created through the restoration of old quarries and management of land, the equivalent of eight times Richmond Park. Also, at least a further 11,000 hectares of UK priority habitats are currently planned through the restoration of sites.

Figure 6.4a shows some of the best restored sites that the public can visit, a nationwide network of quarries that have been restored for wildlife and which are accessible to the public. This map, which we are continually adding to 80 sites covering over 5,000 hectares, with a range of facilities including nature trails, viewing hides and visitor centres. Collectively they form the MPA National Nature Park.

The map displays some of the main restoration sites, a nationwide network of quarries that have been restored for wildlife and which are accessible to the public. It is available on the MPA website.

6.4a: MPA National Nature Park





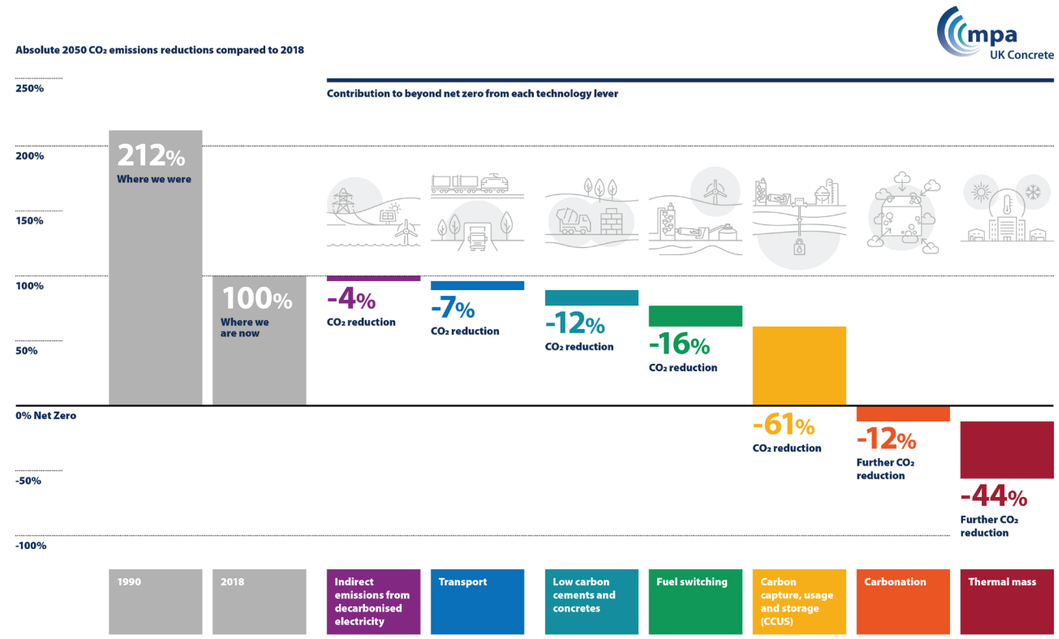
6.5 Beyond Net Zero



Government has committed to deliver net zero emissions by 2050 and the actions we all take today and over the next decades will determine whether we succeed.

The UK concrete and cement industry has a strong track record having already delivered a 53% reduction in absolute carbon dioxide emissions since 1990 – decarbonising faster than the UK economy as a whole.

The industry is committed to building on this early action and prepared a detailed and viable roadmap, the UK Concrete and Cement industry Roadmap to Beyond Net Zero, which sets out a credible pathway to delivering net zero concrete and cement by 2050, together with recommendations about the framework, policy and cross-industry collaboration that are required.



6.6 Sustainable development reports (2019)

All MPA reports are available from: http://www.mineralproducts.org/sustainability/reports.html



7 About the MPA

Who we are

MPA is the industry trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. The Association has become established and recognised as the sectoral organisation for the mineral products industry.

Five key aims underpin the work of the MPA, creating the high-level agenda it uses to influence Government and other key stakeholders.

We seek:

1. Economic conditions that support investment
2. Better Government support for an essential industry
3. A reasonable licence to operate
4. Proportionate legislation and regulation
5. Recognition of progress



What we do

MPA represents the interests of MPA members and the industry with all levels of Government, regulators, other organisations and external audiences.

Key activities include:

- Improving health & safety
- Representing the sector
- Raising awareness of the sector and its contribution to the economy
- Gathering and presenting evidence and information
- Influencing policy, regulation and legislation in the UK and EU
- Protecting the industry's licence to operate
- Safeguarding and developing markets
- Improving perceptions
- Informing on markets and economic contribution
- Influencing technical and design standards
- Influencing supply chains
- Encouraging innovation
- Promoting the use of mineral products
- Educating stakeholders to 'Make the Link' between mineral products and their use

The MPA vision for 2025

Member consultation has established that the industry wishes:

'to be valued as an essential and economically, socially and environmentally sustainable industry of significance to the economy and our way of life'

and perceived as:

- Cohesive and well-organised, responsible and accountable
- Creative, collaborative and outward looking
- Professional and competent, setting high standards to retain and attract new people, reflecting UK diversity
- Innovative, embracing the use of best available technology and sharing best practices
- Engaging constructively and strategically with Government, regulators, local communities and other stakeholders



MPA Strategic Priorities and Objectives

The following **7 Strategic Priorities** will underpin the achievement of the Vision for 2025.



8 MPA Members List (2020)

Producer, associate and affiliate members as at year end 2020.

MPA Producer members

England and Wales

AC Marine Aggregates Ltd
AD Calvert Architectural Stone Supplies Ltd
Aggregate Industries UK Ltd
Albion Stone Plc
Allen Newport Ltd
Bathgate Silica Sand Ltd
Ben Bennett Jr
Bestco Surfacing Ltd
Black Mountain / De Lank Quarry Ltd
Blue Phoenix UK Ltd
Borough Green Sandpits Ltd
Breedon Group Ltd
Brett Group
Brice Aggregates Ltd
Britannia Aggregates Ltd
Bromfield Sand & Gravel Co. Ltd
Burlington Stone Ltd
Cappagh Group of Companies
Cardigan Sand & Gravel Co. Ltd
CEMEX UK
Chambers Runfold
Colas Ltd
Cornish Lime Company Ltd
CPI Mortars Ltd
Day Aggregates Ltd
Denfind Stone
Deme Building Materials Ltd
Dragon Asphalt
Dunhouse Quarry Co.
Eco Readymix
Erith Haulage Company Limited
Eurovia Roadstone
F M Conway Ltd
Ferns Group
Gallagher Group Ltd
G.D. Harries & Sons Ltd
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
Hereford Quarries Ltd
Hills Quarry Products Limited
Hogan Group
Holderness Aggregates Ltd
Hugh King & Co.
Hutton Stone Co. Ltd
Imerys Aluminates
Imerys Minerals
Ingrebourne Valley
J & J Franks Ltd
J Clubb Ltd
J.J. Prior Limited
Johnston Quarry Group
John Carr (Liverpool) Ltd
John Wainwright & Co. Ltd
J Mould (Reading)
JPE Holdings Ltd
Lhoist UK Ltd
LKAB Minerals
Lochaline Quartz Sand Limited
Lovell Stone Group
Mansfield Sand Co. Ltd
Marchington Stone
Marshalls Plc
Midland Quarry Products
Moorhouse Sand & Gravel Pits
Moreton C Cullimore (Gravels) Ltd
The Mortar and Screed Company Limited
Morris & Perry (Gurney Slade) Ltd
Myers Group
O'Donovan Waste Disposal Ltd
Portland Stone Firms Ltd
Quattro (UK) Ltd
Raymond Brown Quarry Products Ltd
R Collard Ltd
Remix Dry Mortar
Rotherham Sand & Gravel Co. Ltd
S Walsh and Sons
Salop Sand & Gravel Supply Co Ltd
Sea Aggregates Ltd / Euromin Ltd
Sibelco UK
Singleton Birch Ltd
Smith & Sons (Bletchington) Ltd
Springfield Farm Ltd
SRC Aggregates
SSG Quarries
Suttle Stone Quarries
Syreford Quarries & Masonry Ltd
Tarmac
TJ Transport Ltd
Tradstocks Natural Stone
Trefigin Quarries Ltd
Tudor Griffiths Group
United Recycled Aggregates Limited
Volker Dredging Ltd
W Clifford Watts Ltd
WCL Quarries Ltd
Wildmoor Quarry Products

8 MPA Members List (2020)

MPA Associate members

England and Wales

3M UK Plc
AABC Bagging Ltd
Ammann Equipment Ltd
Archaeological Research Services Ltd
Aspen Advisory Services Ltd
Associated British Ports (ABP)
Atkins Ltd
Avison Young
Banner Contracts (Halnaby) Ltd
BDS Marketing Research Ltd
Birketts Solicitors
British Sugar Plc
Broadhead Global Limited
BSG Ecology
Burges Salmon LLP
Carter Jonas
Cathay Industries (UK) Ltd
Chaselet Ltd
Chepstow Plant International Ltd
Christeyns UK Ltd
CMS Cameron McKenna Nabarro Olswang LLP
Coke Turner & Co.
Command Alkon Ltd
The Crown Estate
CRW Holdings
DB Group (Holdings) Limited
Davies Planning Ltd
DLA Piper UK LLP
DustscanAQ
EA Ltd
ECL
ELC Vocational Assessment & Safety Solutions Ltd
Envireau Water
EPC-UK
Everything is Somewhere Ltd
Farrar Natural Stone
Finning (UK) Ltd
First Graphene (UK) Ltd
Firstplan
Freeths Solicitors
GCP Applied Technologies
Gerald Eve LLP
GMKC Ltd
Go Plant Limited
GridBeyond
Guardsman
Hafren Water
Heaton Planning Ltd
Howes Percival LLP
Hugh James
Industrial Diagnostics Company Ltd
J C Bamford Excavators Ltd
Jenco Consulting Ltd
John Brooks TMR
KJ Services Limited
Knights plc
Land & Mineral Management Ltd
Landesign Planning and Landscape Ltd
Lanxess Ltd
The Legal Director Limited
Lime Logistics Ltd
London Rock Supplies Ltd
Martin Engineering Ltd
Marubeni-Komatsu Ltd
Master Builders Solutions UK Ltd
Matthews & Son Chartered Surveyors
Mentor Training Solutions Ltd
MJCA
The Mineral Planning Group Ltd
Mineral Products Qualifications Council
Mineral Services Ltd
MSA Safety
Neil Beningfield & Associates Ltd
Orica Europe Ltd
PCM Professional Limited
PDE Consulting Ltd
P.D. Ports Ltd
Peel Ports Group Ltd
Pegasus Group
Pleydell Smithyman Ltd
Port of Tilbury London Ltd
Procter Johnson
ProSpare Ltd
Readyjet Services Ltd
Reece Safety Products
Rema Tip Top Industry UK Ltd
Response Engineering
Rettenmaier UK Ltd
Rock and Road Training Ltd
RT Safety Solutions Ltd
Safety Coaching Ltd
Savills (L&P) Ltd
SERAC UK
Siemens
Silkstone Environmental Ltd
SLR Consulting Ltd
Soils and Stone Limited
Speciality Minerals
Spillard Safety Systems Ltd
Stantec
Stephens Scown
Stevin Rock
Strategy Public Relations Ltd
Tata Steel
TLT Solicitors
Tripod Crest
Trolex
Walters Group
Wessex Archaeology Limited
Wincanton
Wirtgen Limited
WYG Environment Planning Transport Ltd

8 MPA Members List (2020)

MPA Scotland

Aggregate Industries UK Ltd
Angle Park Sand & Gravel Co
Bonnar Sand & Gravel Co Ltd
Breedon Northern Ltd
Cemex UK
D Geddes (Contractors) Ltd
Hanson Aggregates
Hillhouse Quarry Group Ltd
Laird Aggregates Ltd
Leiths (Scotland) Ltd
Macleod & Mitchell (Contractors) Ltd
McFadyens Contractors
O-I Manufacturing UK Ltd
Patersons of Greenoakhill Ltd
Pat Munro Ltd
Tarmac
Tillicoultry Quarries Ltd
W H Malcolm

MPA Northern Ireland

Producer Members

AG (Acheson + Glover)
Alpha Quarry Products
Armagh City Quarries
B McCaffrey & Sons Ltd
Barrick Hill Quarries
Boville McMullan
Breedon Group
Campbell Contracts Ltd
Colinwell Concrete Ltd
Collen Brothers (Quarries) Ltd
Conexpo (NI) Ltd
Core Aggregates
Creagh Concrete Products Ltd
Curtis Enterprises
Dalradian Gold Ltd
Douglas Acheson
Ecocem Ireland Ltd
F P McCann Ltd
George Crawford & Son
Gibson Bros Ltd
Harold Graham
Hughes Precast Products Ltd
Irish Salt Mining and Exploration Co Ltd
Irwins Quality Aggregates Ltd
James Boyd & Sons (Carnmoney) Ltd
Jordan Concrete Ltd
Kilwaughter Minerals Ltd
Lafarge Ireland Ltd
Lagan Operations and Maintenance Ltd
Loughran Rock Industries
Macrete Ireland
Mannok
Matthew Robinson & Son Concrete Products
McQuillan Companies
MW Johnston
Norman Emerson Group Ltd
Northstone (NI) Ltd
OMYA UK
P Keenan
Peter Fitzpatrick Ltd
Premier Cement Ltd
Riddles Bros Ltd
R J Mitten & Sons
Robinson Quarry Masters
RTU Ltd
Stanley Bell Sand & Gravel
T H Moore (Contracts) Ltd
Tobermore Concrete Products Ltd
Tracey Concrete Ltd
Tullyraine Quarries Ltd
W & J Chambers Ltd
Whitemountain

MPA Northern Ireland

Associate Members

Atlantic Bitumen
Tennants Bitumen

MPA Northern Ireland

Affiliate members

Adcrete Ltd
Carson McDowell LLP
CavanaghKelly
CDE Global
Cleaver Fulton Rankin
ConveyorTek
Dennison Commercials Ltd
Finning
Larsen Building Products
MCL Consulting
Momentum Group NI
Newmill Planning Consultancy Ltd
Orica Blast & Quarry Surveys Ltd
Quarryplan
Rapid International Ltd
RHM Commercial
RSK Ireland Ltd
Six-West
SLR Consulting Ltd
TBF Thompson Group
Turley
Ulster Industrial Explosives Ltd
William Orbinson QC

MPA Affiliate Members

British Association of Reinforcement

ArcelorMittal Kent Wire Ltd
BRC Limited
Celsa Steel (UK) Limited
Dextra Manufacturing – UK
Erico Europa (GB) Ltd
Express Reinforcements Ltd
Max Frank Ltd
Outokumpu Stainless Limited
RFA-Tech
ROM UK Ltd



8 MPA Members List (2020)

British Calcium Carbonates Federation

Ben Bennett Jr Ltd

Francis Flower

Hanson Aggregates

Imerys Minerals Ltd

Leith (Scotland) Ltd

Longcliffe Ltd

Omya UK Ltd

Specialty Minerals Lifford

Tarmac Ltd

Eurobitume UK

Nynas Bitumen

Shell Bitumen

Total Bitumen

Puma Energy

UK Quality Ash Association

Full Members

Aggregate Industries

Breedon Cement Ltd

CEMEX

EPUKI

H&H Celcon

LKAB Minerals

Power Minerals Ltd

SSE

ST Equipment & Technology Limited

Tarmac Cement & Lime Ltd

Uniper UK Ltd

UK Quality Ash Association

Affiliate Members

Aarsleff Ground Engineering Limited

Cenin Limited

Fairport Engineering Ltd

Forkers Limited

M & J Drilling

British Precast

MPA British Precast Product Groups

Aircrete Products Association (APA)

British Precast Architectural & Structural (BPAS)

British Precast Drainage Association (BPDA)

British Precast Flooring Federation (PFF)

Concrete Block Association (CBA)

Interpave

Interlay (affiliation)

Modern Masonry (affiliation)

Full Members

ABM Precast Solutions Limited

Aggregate Industries (UK) Limited

Anderton Concrete

Banagher Precast Concrete Ltd

Barcon Systems Limited

Besblock Limited

Breedon Northern Ltd

Brett Landscaping & Building Products

Broome Bros (Doncaster) Limited

Castle Construction Products Ltd

CCP Building Products Ltd

CEMEX

Charcon Construction Solutions

Cornish Concrete Products Limited

Craven Concrete

Creagh Concrete Products Limited

Cross Concrete Flooring Ltd

Decomo UK Limited

Delta Bloc UK Limited

E & JW Glendinning Limited

Elite Precast Concrete Limited

Evans Concrete Products/ Shay Murtagh Group

Forticrete Limited

F P McCann Limited

H+H UK Limited

Hillhouse Quarry Group Ltd

Ibstock plc

Interfuse Limited

JKH Drainage Units Limited

Jordan Concrete Ltd

Laird Bros (Forfar) Ltd

Longley Concrete Ltd

Mannok

Mansfield Sand Company (Brick Division)

Marshalls CPM

Marshalls plc

Mona Precast (Anglesey) Limited

Naylor Concrete Products Limited

Newlay Concrete

Patersons of Greenoakhill Ltd

Plasmor Limited

Robeslee Concrete Company Limited

S Morris Limited

Skene Group Construction Services Ltd

Specialist Precast Products

Stanton Bonna Concrete Limited

Sterling Services Limited

Supreme Concrete Limited

Tarmac Building Products Ltd

Techrete Limited

Thakeham Tiles Limited

Thorp Precast Limited

Topflight Precast

Townscape Products Limited

TT Concrete Products Limited

WDL (Concrete Products) Ltd

British Precast

Associate Members

Adfil Construction Fibres

Adomast Manufacturing Ltd

Arcelor Mittal Sheffield Ltd

B&B Attachments Ltd

BDS Marketing Research Ltd

Beresford's Flooring Ltd

Besser Company

8 MPA Members List (2020)

Beton Machinery Sales

Bianchi Casseforme SRL

BRE

Breedon Cement Ltd

Builders Merchants Federation

Cambrian Services Limited

Canadian Precast Institute

Caswick Ltd

Cenin Limited

Christeyns UK Ltd

Chryso UK Ltd

ClarkeConsult

Command Alkon UK Ltd

Concrete Manufacturers AssociatioN – South Africa

ConcreteNZ

Concrete Technology Ltd

Conspare Ltd

Construction Fixing Systems Ltd

Construction Systems Marketing UK Ltd

Construx

Cordek Limited

CPI Worldwide

Doncaster College

Dundee College

Dywidag-Systems International

E3 Recruitment

Ecocem Ireland Ltd

Ecoratio Ltd

EKC Systems Ltd

Elematic Oyj

Elkem Materials Ltd

ERICO Europe b.v.

Euro Accessories Limited

Fosroc International Limited

GCP Applied Technologies Ltd

Graceland Fixing Ltd

Halfen Limited

Hanson Cement Limited

Hickman & Love (Tipton) Ltd

Inform UK Ltd

Inter-Minerals

Invisible Connections

J & P Building Systems Limited

Kingston University

KVM Industrimaskiner A/S

Lanxess Ltd

Larsen Building Products

Leading Edge Management

Leca Danmark A/S

Leeds Oil + Grease Co. Ltd (LOGCO)

Longrake Spar Co Ltd

Loughborough University

Lytag Ltd

Mapei UK Ltd

Martek Industries Ltd

Master Builders Solutions UK Ltd

Max Frank Ltd

Megasteel Ltd

Mentor Training Solutions Ltd

Miers Construction Products ltd

N R Richards Associates Ltd

National Precast Concrete Association Australia

National Precast Concrete Association USA

Net-Temps Ltd

O.C.O. Technology Ltd

Orlimex UK Ltd

Parex Ltd

PCE Limited

Peikko UK Ltd

Pemat UK

PERI Ltd

Pinnacle Infotech Limited

Polarmatic Oy

Precast Concrete Structures Limited

Precast Construction Technology Ltd

Precast/Prestressed Concrete Institute

Probst Handling Equipment

Procter Johnson

Progress Group

PUK Ltd

Resiblock Ltd

RFA-Tech Ltd

Roche Manufacturing Ltd

Schöck Ltd

SDG

Sicoma S.V.R.

SIKA Ltd

Simply Precast Accessories Ltd

Spiroll Precast Services Ltd

Strusoft UK

T3

Tarmac Cement & Lime Limited

Tarmac Trading Limited

Trelleborg Pipe Seals

Trimble Solutions (UK) Ltd

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 Teesside

University of the West of England

University of the West of Scotland

Wincanton

Yara UK Ltd

9 For further information

- Mineral Products Association: **www.mineralproducts.org**
- Mineral Products Association Northern Ireland: **https://mpani.org**
- MPA Cement: **http://cement.mineralproducts.org**
- British Precast: **www.britishprecast.org**
- British Ready-Mixed Concrete Association: **www.brmca.org**
- British Lime Association: **www.britishlime.org**
- British Marine Aggregate Producers Association: **www.bmapa.org**
- MPA Mortar: **www.mortar.org.uk**
- Agricultural Lime Association: **www.aglime.org**
- Silica and Moulding Sand Association: **www.samsa.org.uk**
- The Concrete Centre: **www.concretecentre.com**
- British Association of Reinforcement: **www.uk-bar.org**
- Asphalt Industry Alliance, MPA Asphalt in partnership with Eurobitume UK: **http://wwwasphaltuk.org**
- UK Quality Ash Association: **http://www.ukqaa.org.uk**

10 Data Sources

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make the link
to mineral products



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

For further MPA information visit www.mineralproducts.org

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sustainable solutions

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