

United Kingdom's Mineral Report ISM Congress 2013 Aachen Germany

This report covers the current position for which statistics are available regarding the mineral industry in the UK. These are available for the period leading up to the summer of 2011. The facts and figures contained within are as derived from the UK Agg-Net, The Coal Authority, The Minerals Products Association, Office for National Statistics, British Geological Survey and the BBC.

Construction Materials

According to the Mineral Products Association, UK mineral products industry makes the following contribution to the economy:

1. Annual production is 250mt with an industry turnover of £9bn
2. Turnover for industries that are supplied comes to £400bn employing 2.5 million.
3. The construction industry itself is worth £120bn and employs 70,000 individuals.

According to the MPA quarterly report of July 2013, there was an improvement in the sales of aggregates, ready mixed concrete and asphalt in the second quarter. Following a poor first quarter, second quarter sales volumes increased by 14% for crushed rock aggregates, 9% for sand and gravel aggregates, 18% for ready-mixed concrete and 9% for asphalt, all compared with the same period of 2012. The report goes on to indicate that when comparisons are made between June 2012 and June 2013, the overall aggregate trend has been down 1%, this is made up of a 6% decrease in sand and gravel and a 2% increased in crushed rock production. It is felt that the industry has now bottomed out and is starting to recover. House building activity is continue to improve, however asphalt sales volumes are down due to the 41% decrease in road construction in 2012.

The UK aggregates supply mix is made up of the following in 2012:

Crushed rock	44%
Land won sand and gravel	22%
Marine won sand and gravel	5%
Recycled	29%

Other mineral products such as agricultural lime, cement, silica sand, dimension stone, precast concrete totalled sales of 48 million tonnes.

Marine aggregates



In 2012, 21% of the UK sand and gravel needs in England and Wales were derived from marine sources. The Minerals Products Association report "the mineral products industry key facts at a glance" indicates that licensed dredging areas are around six miles offshore and are in water more than 20 metres deep, so avoiding any possibility of coastal erosion. It also indicates that of some 1,344 square kilometres of seabed licensed for marine aggregate extraction in 2007, only 134.7 square kilometres was actually dredged, equivalent to just 0.016% of the UK continental shelf area.

Recycled and Secondary Aggregates

Materials suitable for use as recycled or secondary aggregates fall into two broad groups:

1. Demolition and construction materials - 60 per cent are already used as aggregates and fill
2. Industrial by-products such as:
 - colliery spoil - widely used for bulk fill
 - china clay waste - used in some areas as mortar and concreting sands
 - power station ash (PFA) - used as a cement substitute within Ready Mixed concrete and for block making
 - blast furnace slag from the iron and steel industries - used as aggregates and when ground to form Ground Granulated Blast-furnace Slag as cementitious materials
 - slate

The use of recycled aggregates in the UK continues to grow, with the share now being 29% of aggregate supply, compared to 26% in 2011. However, production levels are down which reflects the overall reduction in the aggregate market due to the on-going recession.

The Mineral Products association further indicate that The use of recycled and secondary materials in the GB aggregates market has increased rapidly, rising from 30 million tonnes pa in 1990 to over 70 m tonnes in 2007. Over that period the share of the aggregates market supplied from recycled and secondary sources has risen from 10% to 25%. This 25% market share is three times higher than the European average, highlighting the fact that the use of recycled and secondary materials in Britain is close to full potential.

The "Construction, demolition and excavation waste arisings, use and disposal for England 2008" report by WRAP published in April 2010 is the most recent account regarding construction, demolition and excavation waste (CDE). The report indicates that from 2005 to 2010 there has been a 7% decrease in inert CDE waste from 89.63 to 83.64 tonnes.

Energy Minerals

In 2011, UK oil and gas currently was 55m tonnes for natural gas and 58m tonnes for crude oil being produced from the continental shelf. A further 0.7 m tonnes was produced from onshore production. The BBC (August 21st 2013) reporting on the annual report of the Trade body Oil and Gas UK indicates that there has been record investment in 2013 of £13.5bn. However its annual report on the industry's economic impact highlights the sharp fall in output of 19% during 2011 and 14% in 2012. The BBC further reports that the report indicates that the industry's latest estimates of the continuing decline, suggest a further fall of at least 8.5% during 2013 year, with no recovery in 2014. It is important to indicate that the value of this sector to the UK economy is £40bn a year, including £7bn in export earnings.

In 2008 the UK ranked 14th in the list of major oil- and gas-producing countries. To date, 40 billion barrels have been produced and it is thought that there could still be another 20 billion, or more, still producible.

Metalliferous Minerals

Currently there are no metalliferous mines in the UK.

Coal

The UK still depends heavily on coal as a source of fuel for power stations, however due to a reduction in the coal price per tonne and a major underground fire at the largest production deep mine Daw Mill in March 2013 saw a considerable reduction in production when compared to 2009 annual production levels of just under 18mt. The Daw Mill colliery represented one third of UK Coal's revenue. As a result, UK Coal Holdings Ltd and UK Coal Operation Ltd have now been placed into administration. The business is now under the control of a new company, UK Coal Production Ltd. In April 2013, Scottish Coal went into liquidation with the loss of 600 jobs. The company operated six opencast sites in Scotland.

Total employment in the coal sector for June 2013 was 4,443. The following table is based on Coal Authority and Department of Trade and Industry data and indicates production up to June 2013:

Year	Underground	Opencast	Total UK	Underground mines	Opencast sites
2013	1,124,404 t	2,267,754 t	3,392,158	10	25

Education

Mine surveying education in the UK is focussed on MSc awards in minerals surveying at Northumbria University and at Cambourne School of Mines, Exeter University. The Northumbria course is a part time distant learning award, while the Cambourne course is a full time award. Both awards are accredited by the Royal Institution of Chartered Surveyors and enable graduates to obtain their professional qualification and membership of the Minerals and Waste Management Faculty of the RICS. In total, both awards have around 18 students currently enrolled. Employability for both awards is excellent with most graduates entering the Minerals surveying and land surveying industry, both in the UK and abroad.