



Mineral Products Association

# Progress and challenges

... continuing to deliver

Summary Sustainable Development Report 2012

## HIGHLIGHTS

Modest **overall improvement in industry markets in 2011** – although substantial declines in mineral products and construction demand have occurred in 2012

Further **improvements in industry health and safety** supported by **award winning MPA initiatives**

New policy and initiative to **improve the safety of vulnerable road users**

Continuing reductions in industry carbon emissions – **cement emissions down 55% since 1990**

Increasing focus on the **contribution concrete construction** can make to **reducing energy use and carbon emissions** during the operational life of buildings

**Delivery of 20% of aggregates & 19% of cement by non-road** modes

**1300 industry sites** operate with **certified environmental management systems**

The mineral products industry **leads on Responsible Sourcing certification**

**29% of the GB aggregates market is supplied by recycled and secondary materials** – over twice as high as the European average

**40% of fuel** used for cement manufacture **comes from waste-derived sources**

**Lime industry's waste to landfill down by 94%** since 2005

Improving **biodiversity and nature conservation** remain **key industry objectives** supported by broader liaison with conservation bodies

## FOREWORD

Following the significant decline in industry sales volumes in 2012 as a result of the further fall in construction activity the industry is now operating at the same market levels as in the mid 1960s. In spite of such depressing economic conditions MPA members continue to understand the importance of sustainable development and to deliver strong performance across our product groups. In addition to the information in this summary document further data is available on our SD microsite (on [www.mineralproducts.org](http://www.mineralproducts.org)), including more detailed information on cement, lime, concrete and marine aggregates.

We understand that sustainability is a concept which impacts on every aspect of our activities from quarry development to restoration, dredging and recycling to manufacturing and transport operations,

to the use of our products and materials in construction and other activities. This requires engagement with local communities, operating safely and responsibly to high standards with sensitivity and acting on opportunities to create a positive legacy for society.

During 2012 we commissioned Capital Economics to carry out an initial economic assessment of the sector and were surprised that the annual turnover of the industry is £9 billion, with a GVA of £4 billion, productivity levels over twice as high as the national average and we also supply industries with a combined turnover of £400 billion. The essential contribution we make to national and local economies is a key aspect of the industry's contribution to the UK economy and its sustainability.

We also assessed the costs and burdens of environmental and planning regulation

on the industry and found that identifiable costs were currently around £400 million pa, possibly rising to over £750 million pa from 2020. This assessment process identified that significant aspects of regulation were inefficient, costly and sometimes contradictory. The MPA supports high operating and sustainability standards and we have a record of initiatives to help achieve these – but we need to ensure that the regulatory processes which are intended to encourage sustainable development are reasonable, proportionate, consistent and effectively implemented.

Given such a regulatory framework, I believe the Mineral Products sector can continue to contribute positively to UK sustainable development and work constructively to meet emerging challenges such as resource efficiency and lower carbon growth.

**Nigel Jackson - Chief executive**

## PRIORITIES

### Health and Safety

**Achievements:** The underlying MPA objective is to achieve "Zero Harm" for those working in the industry, supported by a target of halving the Lost Time Injury frequency rate between 2009 and 2014 and further progress was made during 2011. We need to ensure that the health and safety performance of industry contractors matches that of our employees and to this end the new 'Safety by Partnership' initiative focuses on closer co-operation between clients and contractors. Our 'Safer by Competence' policy will deliver demonstrable competence across the sector and includes performance targets



covering employees and contractors in all product areas. The implementation of the "Safer by..." family of initiatives is one reason

why the MPA was awarded the RoSPA SME assistance Trophy. MPA is also committed to improving road safety and has introduced an MPA Vulnerable Road User Safety Policy which introduces requirements for specific training for industry drivers and for industry delivery vehicles to be fitted with additional safety equipment. We believe we are leading other sectors in this field of activity.

**Action needed:** Given the progress in Health and Safety performance over the past decade further incremental improvements will be increasingly challenging. MPA and members will need a continuing focus to implement the "Safer by..." initiatives and to meet

## PRIORITIES CONT'D.

demanding targets. The implementation of the MPA's Vulnerable Road User Safety Policy will require significant industry action and co-operation with contractors and clients, highway authorities and cycling and road safety interests. The industry training body, the Mineral Products Qualifications Council, has developed an officially approved vulnerable road user safety training course for industry drivers which will be rolled out in 2013 to support the MPA policy.

### Sustainable Products

**Achievements:** We are seeking to further improve the "embodied" sustainability performance of our products and to provide our clients and customers with products and materials which improve the sustainable performance of buildings and structures together with transparent supporting data. The 2011 results provide further evidence of the progress made by the minerals products industry, including nearly 1300 industry sites with certified environmental management systems, very significant long term cuts in airborne emissions from the cement and lime sectors and substantial use of non road transport modes. The industry recognises the importance of the resource efficiency agenda: the 2011 results indicate that the share of recycled and secondary materials in the GB aggregates market has risen to 29% - over twice as high as the European average. Aggregates and cement production in GB are 32% lower and 64% lower respectively on a per capita basis than the European averages. The highly successful Olympics has helped to highlight the widespread use of mineral products in the project and provided lessons for future development, big and small, national or local.

**Action needed:** We believe that there will be an increasing emphasis on the sustainability of supply to construction and other sectors, as recognised in the Concrete Industry Sustainable Construction Strategy.

Our industry has led the construction materials sector in certification to the BRE Responsible Sourcing Standard BES 6001, highlighting the visibility and management of sustainability in the industry supply chain. A key issue going forward will be closer engagement between the industry and our customers to ensure that design, specification and construction processes are focussed on the most sustainable whole life outcomes. The MPA will aim to further improve the quality and reporting of sustainability data to help improve transparency and communication of sustainability.

### Climate Change

**Achievements:** The Mineral Products sector has made further reductions in the carbon dioxide emissions associated with the supply of industry products and materials. Cement emissions have fallen by 55% since 1990 and the industry has been at the forefront of developments such as increasing the use of waste-derived fuels to provide a double dividend of lower CO<sub>2</sub> emissions and less waste. New data also indicates that emissions from lime manufacture have fallen from the 2005 data base year. While such progress



has reduced the embodied carbon within industry products the intelligent use of such materials can also reduce emissions associated with the operational life of buildings and structures. MPA The Concrete Centre has produced extensive guidance to illustrate how the thermal mass effect of concrete construction can be utilised to reduce significantly energy use and emissions during a building's life. It is also working with the supply chain to provide practical construction solutions for off-shore wind farm developments.

**Action needed:** Minimising the use of fossil fuels in manufacturing will be a continuing objective for the sector, most notably for energy intensive processes such as cement and lime manufacture. As such it is essential that the significantly higher energy and carbon costs potentially associated with measures such as the European Union Emissions Trading Scheme, Climate Change

Levy and Carbon Floor Price are managed so that it remains economic to operate in the UK. Two areas for further attention will also be design – looking to use mineral products to produce carbon – efficient buildings and structures, and increasing the efficiency of industry delivery transport.

### Biodiversity

**Achievements:** There is increasing awareness of the unique contribution mineral sites can make to habitat creation and biodiversity during both operational and restoration phases and MPA is a member of both the Government's Terrestrial Biodiversity Group and Natural England's Industry and Development Group. Following the 2011 Biodiversity Strategy launch MPA has significantly increased liaison and discussion with nature conservation and biodiversity interests to help realise our unique potential. We are now planning our second Biodiversity Awards scheme in association with Natural England. The publication of the UK National Ecosystem Assessment in 2011 has led to increasing consideration of the relationship between mineral products sectoral activities and ecosystems services and with the help of NERC funded research further analysis of this issue and the implications for our industry is now underway. Our marine aggregates association (BMAPA) has produced a Biodiversity Action Plan which will include the identification of priority species and habitats associated with marine dredging operations.

**Action needed:** A key action for MPA is to generate better information and indicators on the sector's contribution to biodiversity and we are currently trialling the collection of better information on habitats and species. We are also looking to improve the availability and usefulness of web – based information on industry created and managed habitats and biodiversity. We continue to make representations to Defra in England to re-establish the Aggregates Levy Sustainability Fund with a key objective to further support conservation and biodiversity projects.



## Summary results 2012 (2011 data)

Sustainable consumption & production	2010	2011
Aggregates production (primary) (GB)	148mt	148mt
Recycled/secondary materials (GB)	57.6mt	60.0mt
Asphalt sales (GB)	21.5mt	22.4mt
Ready-mixed concrete sales (GB)	14.3m <sup>3</sup>	15.3m <sup>3</sup>
Cement – domestic sales (GB)	7.8mt	8.4mt
Cementitious materials (GB)	10.5mt	11.3mt
Quicklime and Dolomite (GB)	-	1.67mt
Per capita production aggregates (GB/Europe)	3.4/5.0t	tbc
Per capita production cement (UK/Europe)	131kg/381kg	139kg/389kg
Aggregate sites with certified EMS (% of survey)	84%	81%
Cement sites with certified EMS	100%	100%

### Climate change & energy

CO <sub>2</sub> emissions directly from cement works (kg/tonne)	725	719
CO <sub>2</sub> emissions from crushed rock (kg/tonne)	5.5	4.3
CO <sub>2</sub> emissions from sand and gravel – land won (kg/tonne)	5.0	5.2
CO <sub>2</sub> emissions from asphalt production (kg/tonne)	26.3	22.1
CO <sub>2</sub> emissions from ready-mixed concrete prod (kg/tonne)	1.12	0.88
Share of sales moved by rail (aggregates)	9.3%	9.6%
Share of sales moved by rail (cement)	17.0%	17.5%
Average road delivery distance (aggregates)	45.7km	43.3km
Average road load (aggregates)	22.1t	20.0t
Marine dredged aggregates landings for construction use	9.3mt	11.2mt

### Natural resources & enhancing the environment

Trees planted	139,392	97,180
Hedgerows planted	17.64km	19.57km
Waste recovered as raw materials and fuels by cement industry	1.32mt	1.48mt
Archaeology – land investigated pre-planning permission	427ha	98ha
Archaeology – land investigated post-planning permission	344ha	151ha
Proportion of UK land area being quarried (aggregates)	0.10%	0.10%
Ratio of land restored to land prepared for quarrying	1:0.8	1:0.4
Area of seabed dredged	105 km <sup>2</sup>	114 km <sup>2</sup>

### Creating sustainable communities

Number of reportable injuries (aggregates)	128	101
Lost Time Incidents: employees, contractors, third parties	173	157
Employment – direct by MPA members (aggregates)	20,569	20,309
Employment – direct by MPA members (cement)	2417	2488
Number of recorded complaints (aggregates)	570	520
Number of community liaison groups (aggregates)	257	266
Liaison group meetings (cement)	34	37
Recorded visitors to aggregates sites, cement kiln sites	20,569	38,045

Front cover: Formed from 5,350 cubic metres of concrete (some of it sprayed as a lining), the two courses and facilities of The Lee Valley White Water Centre will provide a world-class canoeing and kayaking facility for people of all levels of ability.

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](http://www.mineralproducts.org)

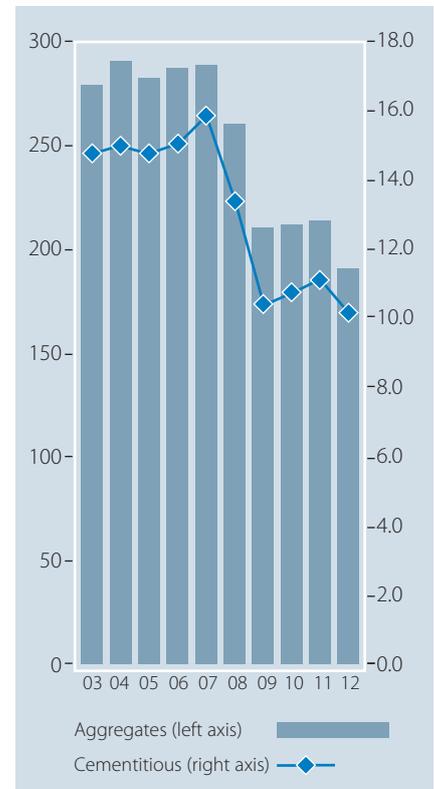
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## Aggregates and Cementitious sales 2003-2012 (GB)

million tonnes p.a.



## Sustainability across the MPA

