mpa
essential materials
sustainable solutions

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CHAIR'S WELCOME

As we welcome a new year, I am honoured to continue serving as Chair of the MPA, with my tenure now extended until September 2026. This extension is both a privilege and a responsbsility and I am humbled by the trust the members are placing in me to help to steer the MPA through these challenging times.

Over the past two years, I have worked closely with the MPA Board and our members to deliver on our strategic priorities. Together, we have navigated shifting economic conditions, global impacts and the evolving UK minerals landscape. My commitment remains steadfast to help to ensure that the MPA is effectively advocating for our industry, supporting its members, and helping to secure a sustainable future for mineral products.

The recent Autumn Budget brought with it both positive and negative implications for our sector. We are pleased that the proposed changes to the Landfill Tax – and particularly the quarry exemption – have been dropped, which would have added significant costs, and impacted our ability to continue our world-leading quarry rehabilitation work.

However, the increasing tax burden and lack of growth measures in this budget will add to the uncertainty over the UK as a place to invest in a global marketplace and will put further pressure on our sector.

In November, I joined industry colleagues and Government officials at an MPA event in Westminster to champion the UK cement industry's essential role in delivering Government ambitions, from house building to clean energy. MPA will continue to work with policymakers seek to ensure our sector continues to provide skilled jobs and essential products.

Reports highlight low demand and a slowdown in construction, with tough market conditions for many businesses. Aggregates reserves are reaching a critical point; continued investment and mineral planning reform are needed to secure supply and support growth.

Yet, as we look ahead to 2026, and the challenges it will undoubtedly bring, the resilience and innovation shown by our members gives me confidence that we will rise to the task ahead. And the impressive range of entries received for the MPA's Health & Safety Awards renews my pride in our industry's commitment to health, safety and wellbeing as well as continuous improvement.

So let's approach the new year with renewed determination. By working together, embracing change, and focusing on shared priorities, I believe we can build a stronger, more sustainable future for our industry and our communities.

Wishing you all a healthy, successful and safe 2026.

Lex Russell, MPA Chair

Safer by Sharing: Health & Safety Awards 2026

The MPA's Health & Safety Awards 2026 has attracted more than 100 category entries from operators, contractors, suppliers and service providers of all sizes.

Designed to encourage widespread adoption of good practices, initiatives and innovations, this year's awards have been restructured to better reflect the evolving safety challenges across the industry.

Categories include a newly introduced Outstanding Contractor Award, recognising exceptional safety performance by contracting firms, and a streamlined set of seven topic awards, plus the well known 'Fatal 6', Eurobitume Trophy, Young Leader and Individual Recognition awards.

Chris Leese of the MPA's Executive Management Committee said: "The sharing of knowledge about good practices and innovations will help us all to make our industry a safe and healthy place for everyone – we are all 'Safer by Sharing'. It is also important to recognise the outstanding performance that individuals and organisations have made on our journey towards 'Vision Zero'."

The winners will be revealed at the awards ceremony on 7th July 2026 in London – a gathering that brings together senior leaders and operational teams from across the industry to acknowledge and share exemplary safety practices. Entries from previous years can be searched and viewed at www.safequarry.com.

MPA HEALTH & SAFETY AWARDS
SAFER BY SHARING

For the latest news and views from MPA follow @mineral-products-association on LinkedIn.

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We each use 5.8 tonnes a year!

Every person in the UK uses 5.8 tonnes of mineral products each year according to the latest report from the MPA.

The new Profile of the UK Mineral Products Industry – 2025 Edition, details fascinating facts and figures about a foundation sector that still represents the biggest flow of materials in the economy. The report reveals that the industry supplied 397 million tonnes of mineral products in 2023.

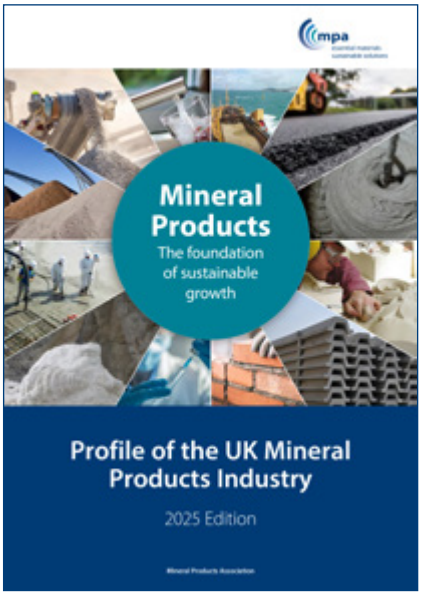
That generated £6.7 billion in direct gross value added (GVA) and helped support a further £253 billion of UK economic activity through the downstream supply chain – equivalent to around 11% of national GDP. In the same year the sector also supported 89,000 jobs directly and helped to sustain an estimated 3.4 million jobs in other industries.

"Mineral products are the foundation of the UK economy," said Aurelie Delannoy, MPA Director of Economic Affairs. "Every home, road, hospital, factory – and even every wind turbine and solar panel – starts with these materials. As the UK transitions to a more sustainable, resilient and prosperous future, ensuring long-term minerals supply is critical."

Also highlighted is the industry's substantial contribution to sustainability, including impressive decarbonisation, resource recovery and reuse and a unique contribution to nature recovery.

Delannoy added: "The minerals underpinning our sector are abundant in the ground, but they need planning, permitting and managing, and should never be taken for granted. Our industry continues to invest in decarbonisation and resource recovery, and has been delivering Biodiversity Net Gain for decades before it became national policy. To be able to sustain the UK's future growth depends on securing a long-term supply of domestically-sourced essential materials."

The report is available to download at mineralproducts.org.



Reform minerals planning too

Autumn amendments to the Planning and Infrastructure Bill were welcomed by MPA.

But the changes announced in October were silent on mineral planning, despite widespread recognition that a reliable supply of construction materials and industrial minerals is essential to the Government's ambitions. And despite historically low sales figures for aggregates in the UK, the rate of consumption is still outstripping new permissions for mineral extraction, largely due to barriers in the mineral planning system.

To address the issue, the MPA has called for a mineral planning reform package to build on the Planning and Infrastructure Bill amendments, so producers can secure and supply the raw materials essential for the construction that the bill is intended to facilitate.

Mark Russell, MPA Executive Director for Mineral Resources, said: "With construction output flatlining, the Government's commitment to building more homes and better infrastructure is of course welcome, but you can't be 'YIMBY' about houses if you're not 'YIMBY' about quarries!" "Planning reform needs to address the barriers to all kinds of development in the construction and manufacturing supply chain, especially the extraction of aggregates on which virtually all other development depends. The current Planning and Infrastructure Bill won't remove these barriers to delivery, it will simply shift the sticking point to elsewhere in the process."

Homes like blockwork

A new report from MPA Masonry explains why brick and block construction continues to be the right choice for new homes in the UK.

The report covers the sustainability and performance of masonry, as well as the role it plays in delivering long-lasting, cost-effective and low-carbon homes. Masonry construction also delivers comfortable, energy-efficient homes with a water and fire resilient structure.

And in a world of unpredictable global supply chains, the importance of derisking projects by using locally made masonry materials is explained, which also boosts domestic manufacturing and benefits local economies.

Elaine Toogood, Senior Director, MPA Concrete said: "Masonry materials, most commonly in the form of brick and block cavity walls, have long been established as the principal materials of choice for the cost effective construction of UK homes. These homegrown building products remain essential to helping housebuilders deliver a new generation of resilient and low carbon homes."

The report is available to download at www.mpamasonry.org

VIEWPOINT

After breathing a collective sigh of relief that the Government's misguided Landfill Tax reform proposals were to be shelved, we were left with a hollow sense of victory following the Autumn Budget.

Despite economic growth being the Government's number one mission (remember that?), growth barely featured in the Chancellor's speech. As a key supplier of new housebuilding, infrastructure and foundational manufacturing, the UK mineral products industry has been staring down the most challenging period in a generation. November's Budget did little to try and lift market confidence or create the conditions to boost long-term investment.

Yes, we welcomed the decision to bury proposed Landfill Tax reforms as well as the commitment to increase local roads maintenance funding. Both are sensible steps and show that the Government is capable of listening if enough voices speak up. However, these do not compensate for the glaring absence of broader, growth-oriented policies.

Cumulative burden

In our pre-Budget submission, MPA proposed a suite of measures to stimulate economic activity. We called for a super-deduction to encourage capital investment, pragmatic regulatory reforms to reduce barriers to growth, and targeted tax and policy changes to support infrastructure, highways, procurement and energy efficiency.

Instead, the Budget loaded yet more taxes onto businesses and households, more complex business rates for industrial sites, and a string of policies with (at best) questionable impact on economic revival. The announcement on the exclusion of indirect emissions from the Carbon Border Adjustment Mechanism is also a concern for our cement and lime producing members. All this cumulative burden weighs on the industry whilst the construction sector – the driver of demand for the vast majority of mineral products – remains stagnant.

Grow, don't shrink

Headlines in recent months have reported the lowest demand of ready-mixed concrete for six decades and domestic cement production at its lowest levels since the 1950s. These are not just statistics – they reflect site closures, job losses, shrinking capacity, and the degradation of domestic supply chains.

Our members had hoped the Budget would spark some recovery. In reality, they face more of the same – an economic environment that discourages investment, where difficult decisions have to be made (and already are being made) to balance cost pressures against poor demand. The country's productive capability to deliver future growth is being eroded, precisely when it is most urgently required.

Roads revival

The one true positive for our industry in the Budget was the commitment to double local road maintenance funding by 2029-30. The backlog identified by the Asphalt Industry Alliance's ALARM survey sits at nearly £17 billion, with less than half the local road network currently considered to be in a good state of structural repair.

Investing in local roads not only helps deliver better conditions for all road users, but actually supports growth ambitions – with DfT research showing that every additional £1 spent on road maintenance results in a return on investment of between £2 and £9. We need a lot more of that kind of forward thinking. But the Budget's emphasis on taxation and welfare, without corresponding measures to stimulate investment, will inevitably prolong economic stagnation.

Empowering policy

Like the supply of minerals, growth cannot be assumed, it needs to be planned and worked for. Our members are resourceful, resilient to a point, and will do whatever they can to support economic recovery, but they need an empowering policy environment to build upon. The Autumn Budget was a missed opportunity to do just that and leaves the construction sector without the platform to help drive the growth the Government says it wants, and country so desperately needs.

Chris Leese
Executive Chair
MPA Executive Management Committee

PROGRESS UNDER PRESSURE

The UK concrete and cement industry has continued to slash carbon emissions, but the risk of offshoring is growing. Now, voices from within Westminster have joined those from across the industry to deliver a clear message – we need UK cement.

Carbon dioxide emissions generated by the UK concrete and cement sector are now 63% lower than 1990 levels. The reduction is driven by a combination of continued decarbonisation efforts by cement manufacturers but also by falling domestic production – and not because there's a lack of demand.

Over 90 million tonnes of concrete is consumed in a typical year in the UK. The industry is vital to the Government's goals, including 1.5 million new homes, major transport improvements, nuclear expansion, floating offshore wind farms among others.

> ***"Concrete, and its key ingredient cement, form the backbone of resilience and progress, from national security to climate adaptation..."***

...whether that's fortifying flood defences, strengthening military infrastructure or underpinning much needed utilities upgrades.

Today these materials account for around 1.5% of the UK's total greenhouse gas emissions, significantly less than the global estimate of around 7%. And, in a 2025 update to its 'Roadmap to Beyond Net Zero', first published in 2020, the sector is shown to be decarbonising much faster than the UK economy as a whole (which reduced carbon emissions by 54% over the same period).

There has been huge investment and a concerted effort among manufacturers to decarbonise by adopting the latest production technologies, developing lower carbon cementitious materials and switching away from traditional fossil fuels to the efficient use of waste materials like biomass as fuel. UK carbon emissions from concrete and cement in 2023 were reduced by 21% compared to the equivalent figure for 2018.

However, the political and economic landscape has changed considerably since 2020. Energy-intensive industries including the cement sector are grappling with the highest industrial electricity prices in the world alongside uneven carbon costs. This has eroded the competitiveness of domestic production resulting in a rise of imports which now meet approximately a third of the construction industry's demand for cement. This puts jobs at risk in the sector and increases carbon leakage - effectively moving responsibility for emissions abroad.

More than ever, careful consideration of materials sourcing and procurement by contractors, specifiers and other supply chain partners is vital for the wider construction industry to play its part in the UK reaching net zero by 2050.

> ***"The concrete and cement sector is decarbonising much faster than the UK economy as a whole***

Dr Diana Casey, MPA Executive Director for Cement and Lime, said: "We have a real opportunity for a low carbon transition in the UK concrete and cement industry which provides essential materials for the Government's growth mission while retaining and creating high quality jobs and economic value in the UK.

"But this progress is under pressure from deindustrialisation. The UK is effectively offshoring its emissions responsibility, as emissions associated with imported goods consumed here are not recorded in UK territorial CO_2 data."

The latest report, which maps progress against the sector's 2020 roadmap, explains that net zero can be met through decarbonised electricity and transport networks, as well as further fuel switching, greater use of low-carbon cements and concretes, and crucially the application of Carbon Capture, Use or Storage (CCUS) technology for cement manufacture.

CCUS remains critical to the decarbonisation of cement manufacturing with studies suggesting it could deliver 61% of the required carbon savings compared with the 2018 baseline. The Climate Change Committee, the independent adviser to UK Government, recognises that for industrial sectors such as cement with unavoidable process emissions, CCUS technology is key to delivering net zero.

A net negative concrete and cement industry by 2050 can be achieved by removing emissions from the manufacturing process and then accounting for the natural, in-use properties of concrete. These include its ability to absorb carbon dioxide from the atmosphere throughout its lifetime, which is now quantified and included in the UK greenhouse gas inventory following work by a consortia led by MPA to model this important carbon sink.

> ***"With the right policy framework we can secure the UK cement sector for the long term"***

In order to realise the shared ambitions for decarbonisation, the industry and Government will need to continue to work in close collaboration, to build a shared understanding and a pathway to net zero where policy, financial and infrastructure enablers are coordinated to support the sector's approach and ensure a just transition.

"If the UK is serious about green growth, we need to support demand for lower carbon domestic products," added Dr Casey. "With the right policy framework, including a fair and watertight Carbon Border Adjustment Mechanism (CBAM) competitive energy pricing, and targeted support for CCUS, we can secure the UK cement sector for the long term. That means protecting high-value jobs, strengthening regional economies, and ensuring that every tonne of cement used to build the country's future also supports our industry and climate ambitions."

The 'UK Concrete and Cement Industry Roadmap to Beyond Net Zero - Progress Report 2025' can be downloaded from the MPA website.

Cementing Britain's ambitions

The MPA hosted an event in the Houses of Parliament in November, bringing together cement producers, ministers, MPs and Government officials to highlight the sector's strategic importance, the threats faced and potential opportunities.

Among those present were Minister for Industry Chris McDonald, who spoke in support of the sector, and Jon Pearce, MP for High Peak in Derbyshire which is home to two of the UK's 10 cement plants.

Delegates heard about the threats facing the industry, including uneven carbon regulation, sky-high energy prices and the cumulative burden of regulation. Industry representatives explained that deindustrialising the UK, only risks exporting jobs, investment and emissions overseas, but also leaves the UK exposed to supply chain disruption and geopolitical shocks – and recent history has shown the impact that can have.

However, the MPA emphasised how using public procurement policy to support domestically produced cement could unlock huge opportunities. It would help to ensure the Government's investment in housing and infrastructure delivers wider economic growth and allow the UK to retain control over the decarbonisation of its resources.

Such a move would also protect highly skilled, well-paid jobs across all four nations. Cement production is part of the wider mineral products industry, which supports over 80,000 jobs, mostly in rural communities and industrial heartlands, and is one of the UK's most productive sectors, with each worker generating two and a half times the national average in value.

The event saw the MPA reiterate its calls for Government to address wider competitiveness challenges such as high electricity prices and rising labour costs, which are placing UK cement producers at a growing disadvantage.

Policymakers were also urged to establish a robust Carbon Border Adjustment Mechanism (CBAM), with clear guidance on how the UK rate will be calculated to ensure importers face the same carbon costs as domestic producers. The importance of accelerating Government support for CCUS was also underlined.

The MPA's Dr Diana Casey with Jon Pearce MP for High Peak.

RESERVE JU

Aggregate reserves have now been in decline for more than two decades. If Britain's ambitions to build new homes and better infrastructure are to be realised, action is required before it's too late.

Every four years the Ministry of Housing, Communities & Local Government (MHCLG), working in conjunction with Welsh and Scottish Government, commission the Aggregate Minerals survey to assess the national supply and demand of aggregate to inform future mineral planning policy.

It's widely recognised as the most comprehensive examination of primary aggregates undertaken in Great Britain – indeed the only one – with data collected from 150 mineral planning authorities capturing 699 active quarries, 63 wharves landing marine aggregates and 27 wharves receiving crushed rock delivered by ship.

The information is collected confidentially and the British Geological Survey analyses the findings to understand primary aggregates sales volumes, inter-regional flows, transportation, consumption and permitted reserves in England, Wales and, for the first time, Scotland.

Published in the autumn of 2025, the most recent report Aggregate Minerals Survey 2023 (AM2023) shows that permitted aggregate reserves in Britain fell by some 46% between 2001 and 2023, a worrying downward trend by any measure. Despite years of warnings from the minerals industry to the contrary, consecutive Governments continue to take aggregate supply for granted whilst reserves continue to dwindle.

> *"Consecutive Governments have taken aggregate supply for granted whilst reserves dwindle"*

The report shows that total permitted reserves of aggregate in Britain at the end of 2023 were 5,106 million tonnes (Mt). Crushed rock accounted for 90% (4,589 Mt) and sand and gravel the remaining 10% (518 Mt). Total permitted reserves have decreased by 359 Mt (7%) since 2019.

Yet aggregates still represent the largest material flow in the economy and are the only major bulk material in Britain to be sourced almost entirely domestically. In 2023, total consumption of primary aggregates in Britain was 164.9 Mt, of which 137.1 Mt was used in England, 15.5 Mt in Scotland and 11.5 Mt in Wales. Notwithstanding historically low sales figures, the rate of consumption is still far outstripping new permissions for mineral extraction, largely due to barriers in the mineral planning system.

Unfortunately, the Government's proposed planning reforms, primarily designed to speed up the planning process for new homes, will do little to halt the decline in permitted reserves of the materials needed to build them – for foundations, floors, walls, rooftiles, driveways, associated services and amenities.

Even the latest amendments to the Planning and Infrastructure Bill are silent on mineral planning, despite widespread recognition that a reliable supply of construction materials and industrial minerals is essential to the country's ambitions for the built environment, transition to clean energy and economic growth.

The MPA recently made an urgent call for a mineral planning reform package as part of the Planning and Infrastructure Bill to enable producers to secure and supply the essential materials for built development. That goes hand-in-hand with a request to Government to renew its commitment to the long-established Managed Aggregate Supply System (MASS) that's

UDGEMENT

intended to ensure a steady and adequate supply of essential minerals for construction.

> *Up to half of all aggregates are procured, directly and indirectly, by the Government*

Mark Russell, MPA Executive Director for Mineral Resources, said: "Aggregate Minerals surveys are a vital part of the MASS. Failure to respond to the findings of AM2023 would create a serious and costly risk not just to the minerals sector but also to the construction industry and the wider national economy, especially given that up to half of all aggregates are procured, directly and indirectly, by the Government.

"As it stands, areas such as the South East of England rely heavily on imports of materials from other regions in the country. The long-term planning for these supplies and the transport and infrastructure needed to deliver them, is vital to economic development. Britain is blessed with a diverse geology and while we understand the Government's focus on 'critical' minerals over recent years, it has undoubtedly taken its finger off the pulse regarding the bread-and-butter essential minerals that the economy relies upon.

The Aggregate Minerals survey has been the only nationally coordinated data collection exercise of its kind since the cessation of the Annual Minerals Raised Inquiry survey, which MPA says was a short-sighted cost saving exercise by Government in 2014. That decision significantly increased the risk of inaccurate assumptions being made around the condition and sustainability of the reserve base for construction aggregates, potentially culminating in a shortfall of construction materials.

The MPA has repeatedly highlighted that Government policy, particularly around the delivery of housing and infrastructure, blindly assumes that mineral products like aggregates (and downstream products such as concrete and asphalt) are in plentiful supply.

In reality, while Britain has an abundance of mineral resources in the ground, securing the permitted reserves to meet the country's demands requires long-term planning, monitoring and continual management – a principle which successive Governments have failed to deliver upon.

For example, National and Sub-National Guidelines on Future Aggregate Provision, providing national and regional forecasts of need, have not been updated since 2009, with the latest guidelines having expired in 2020. A further risk to supplies is that a significant proportion of current planning permissions expire in February 2042. Issues like these can and must be fixed but require Government to act on mineral planning, and quickly.

> *Planning reform needs to address the barriers to all kinds of development*

Mark concluded: "Planning reform needs to address the barriers to all kinds of development in the construction and manufacturing supply chain, especially the extraction of aggregates on which virtually all other development depends. The current Planning and Infrastructure Bill won't remove these barriers, it will simply shift the sticking point for delivering economic growth elsewhere in the process.

"Without reform to mineral planning the decline in consented mineral reserves will continue, and ensuring a steady and adequate supply to meet demand will become increasingly difficult with potentially huge economic ramifications. Mineral planning reform has to be the next step."

Inter-regional material flows matter

The importance of inter-regional supply reinforces the need for minerals to be planned strategically.

Different types of crushed ock represent the largest inter-regional flows, reflecting the overall demand for these versatile materials and the absence of significant hard rock resources in London, the South East and East of England.

In 2023 England was a net importer of primary aggregates (11.7 Mt), while Wales (3.9 Mt) and Scotland (6.2 Mt) were net exporters. Some 8.2 Mt were imported into England and Wales from Scotland (3.6 Mt) and outside of Great Britain (4.6 Mt).

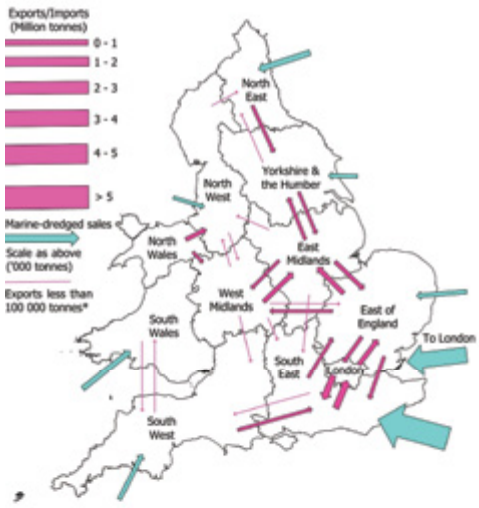
The East Midlands is the largest producing region at 31.4 Mt which is 22% of total land sourced sales in England and Wales, closely followed by the South West with 26.4 Mt and 18% respectively. This highlights the nationally important role these two regions play in minerals supply; they are also the leading regions for exporting crushed rock (13.2 Mt and 8.3 Mt respectively). London, the South East, East of England and the North West are the regions most heavily dependent on imports, although London and South East also dominate marine aggregate sales at over 10 Mt.

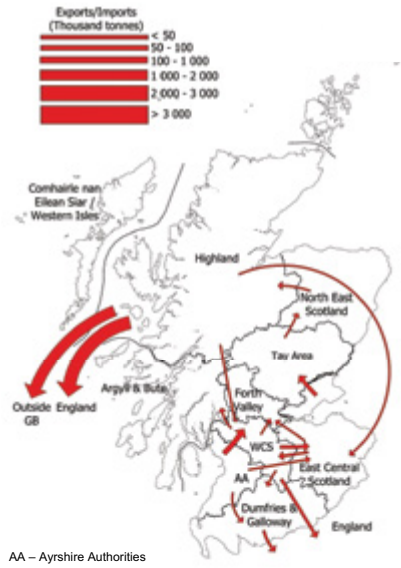
The significance of inter-regional flows, particularly into urban areas, reinforces the importance of safeguarding rail depots and wharves: 22.5 Mt (13.5%) of primary aggregates were brought to Great Britain by sea, and 25 Mt (15%) of all primary aggregates were distributed within Britain by rail or water to their point of use.

Charts reproduced with kind permission of the British Geological Survey.

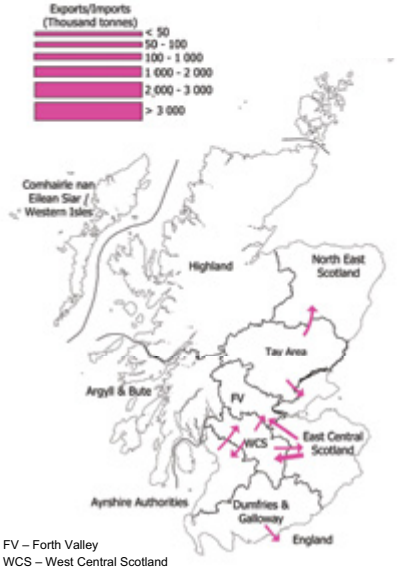
CRUSHED ROCK

SAND & GRAVEL





AA – Ayrshire Authorities
WCS – West Central Scotland



FV – Forth Valley
WCS – West Central Scotland

Recovery position

Materials recovery and recycling is a circularity success story despite lack of data

The detailed Government data for primary aggregates reported in the AM2023 survey has no equivalent for recycled and secondary aggregates.

But the latest MPA figures show that 74.3 million tonnes of recycled and secondary aggregates were used across Great Britain in 2023, accounting for 31% of the market.

That's more than almost any other European nation, but Britain's leading position could be extended further with more up-to-date Government statistics to track progress more effectively.

However, no consolidated national data has been available since a Waste and Resources Action Programme (WRAP) report in 2008. A comprehensive evidence base is vital to assessing progress and setting policy on resource efficiency and decarbonisation. This is even more important following recent advancements in circularity in concrete and asphalt.

So the MPA has called on the Government to commission a new survey on materials recovery and reuse – last conducted two decades ago – to inform key decisions in areas like circular economy strategy, planning policy and landfill tax reform.

To fill the current data void, in its new report 'Construction Aggregates Supply in Great Britain: Primary, Recycled and Secondary Aggregates', the MPA has made its own best estimates, drawing on available information from aggregates producers and third parties, as well as making material-specific assumptions based on availability of different sources.

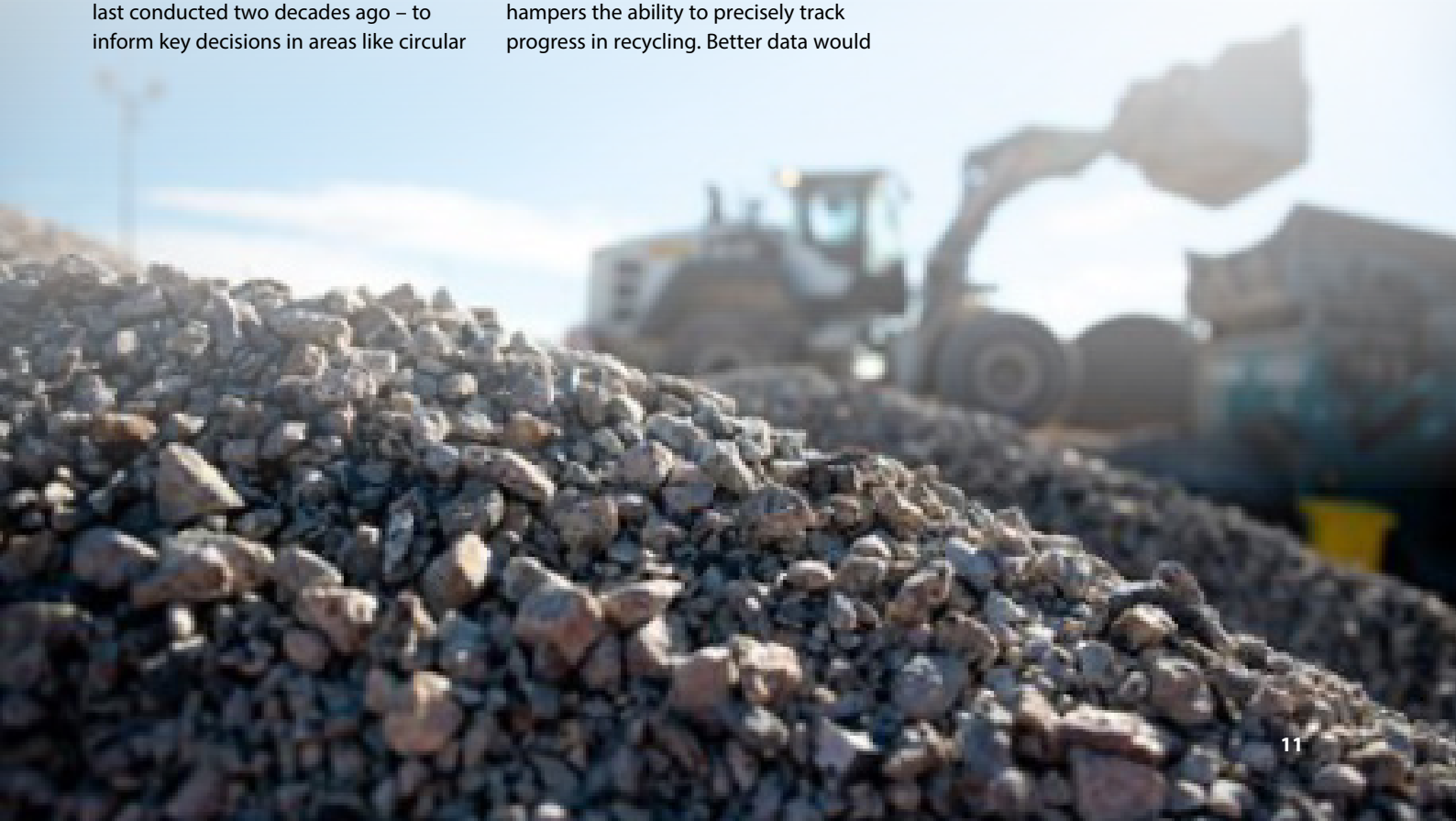
> ***The UK is widely recognised for its strong track record on recycling aggregates***

Recycled materials – mainly derived from inert construction, demolition and excavation wastes – and secondary aggregates from china clay mine waste, incinerator ash and steel slag – are playing a vital role in resource efficiency and the transition to a circular economy.

Despite the sector's track record for recovery and reuse, the MPA warns that the absence of robust national statistics hampers the ability to precisely track progress in recycling. Better data would also give MPA members greater confidence to invest in new recycling facilities and technologies.

Crucially, a lack of reliable data risks fuelling counterproductive policy decisions. One example is the Scottish Aggregates Tax where much of the focus has been around recycling rates and perceived availability of recyclable materials (see MPT p14).

Luke George, Economist at the MPA, said: "The UK is widely recognised for its strong track record on recycling aggregates, but without reliable, up-to-date national data, it is difficult for both Government and industry to make sound decisions and invest in new opportunities. Poorly designed policy that might inadvertently weaken the domestic supply of essential aggregates, whether primary or recycled, would be at odds with the Government's own priorities to drive growth, accelerate housebuilding and revitalise infrastructure. And if the Government is serious about sustainability, it needs to plug this significant data gap."



ANOTHER DIMENSION

A new report commissioned by the MPA sheds fresh light on how the most traditional of building materials lowers embodied carbon, supporting sustainable construction and boosting local economies.

From the first shelters carved into rock faces over a million years ago to the greatest historic monuments that still stand today, stone has defined our history, shaped our landscapes, and continues to inspire architecture.

Yet beyond the 'heritage' label, it turns out that stone is also one of the most sustainable material choices, according to a report commissioned by the MPA. The findings reinforce what many in the industry have long recognised – stone is naturally low-carbon, built to last and easy to reuse, and it's best sourced locally.

The report, produced by sustainability calculation specialists Looper Tech, draws on Environmental Product Declarations (EPDs) and data from the Embodied Carbon in Construction Calculator (EC3), revealing that natural stone carries one of the lowest embodied carbon footprints among popular building materials.

On average, stone's manufacturing footprint is around 0.09 $kgCO_2e/kg$, with best-in-class examples as low as 0.02 $kgCO_2e/kg$. By comparison, more widely used materials including structural steel (which is the highest by far), concrete and even timber typically record higher values (although the report shows that concrete masonry comes a close second to stone).

"Stone's carbon performance is striking," says Chris Herbert, MPA Director of Planning and Dimension Stone. "It delivers durability and beauty with a fraction of the carbon intensity. Every building project that chooses stone is making a tangible contribution to reducing embodied emissions.

"On top of that, stone doesn't just perform well today, it continues to deliver value for decade after decade. Its longevity is effectively sustainability in action."

The report surmises that fewer replacements over time means slowing repeated cycles of processing and transport. So each decade that stone remains in place prevents emissions that may otherwise have been incurred by new production.

Local sourcing is a win-win

"Of course, it's not 'new news' that durability is one of stone's defining qualities," continued Chris. "From historic cathedrals to impressive civic buildings, stone has proven its ability to endure for centuries with minimal maintenance. Unlike materials that require more regular renewal, and in some cases depend on physical and chemical treatments to extend their life, stone's natural resilience keeps whole-life carbon low and maintenance costs predictable."

The report emphasises that stone is not only strong but also adaptable. When the purpose of a building changes and it needs to be repurposed, stone can be lifted, re-cut, or re-finished for a second or third life. This circularity aspect of stone augments its sustainability credentials, stretching its already small footprint across multiple generations of use.

One of the clearest messages from the report is the importance of sourcing stone domestically, even better regionally and locally to keep carbon low. Transport emissions can quickly outweigh the carbon cost of extraction

and processing, especially when materials are imported from overseas. Analysis shows that carbon intensity steps up as sourcing moves from British to European to global supply chains.

Stone is naturally low-carbon, built to last and easy to reuse

For example, stone sourced from British quarries has the lowest transport footprint, despite the fact that it's almost exclusively transported by road. European imports introduce a modest share of the carbon from sea freight, while global procurement is dominated both by shipping and long land journeys, significantly increasing emissions. And that's before questions of ethical production are considered.

"Local sourcing is a win-win," continues Chris. "Choosing locally quarried stone not only reduces carbon but also strengthens regional supply chains, shortens lead times, supports skilled British jobs, keeps investment in regional, often rural, economies, and ensures building projects reflect local identity. It's one of the most practical and economical ways to align construction with net zero goals."

Authors of the report say its credibility lies in its methodology since all the figures are drawn from third-party verified EPDs and the EC3 database, ensuring transparency and comparability. Calculations follow ISO life-cycle assessment standards, meaning results stand up to audit and technical review.

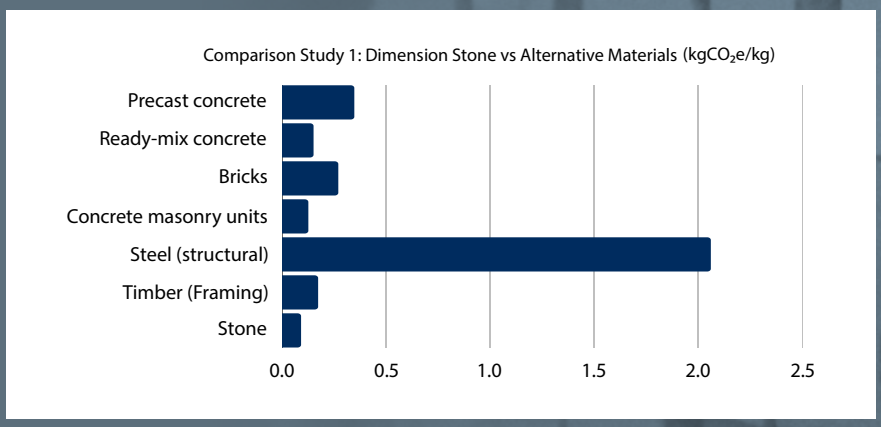
Britain's dimension stone producers hope that this evidence-based approach gives architects, designers and specifiers confidence that stone's low-carbon credentials are robust and that comparisons with other materials are fair and accurate.

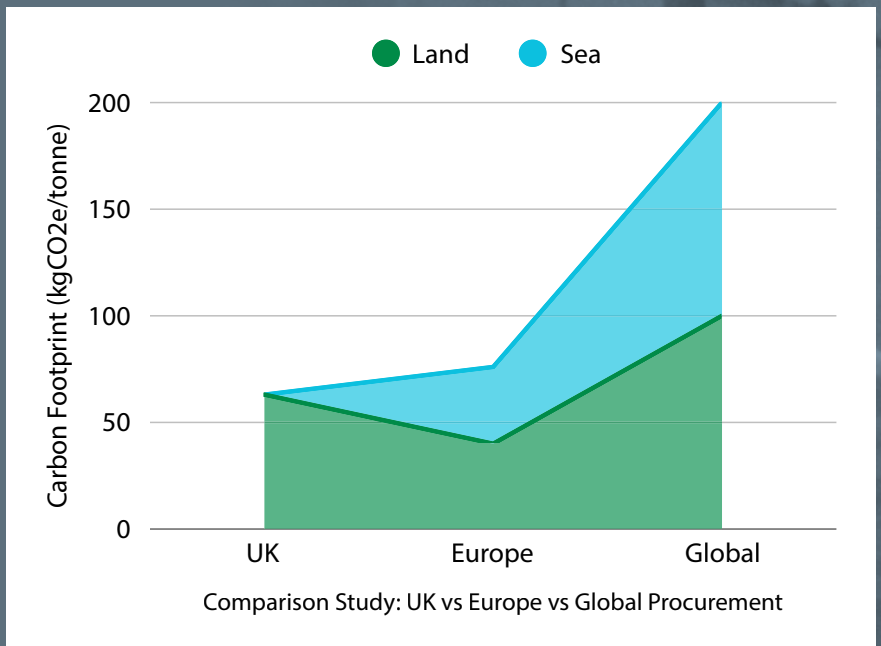
Chris concluded: "Whilst it may not be suitable for every application, domestic natural stone offers a practical, immediate lever for reducing embodied carbon in construction projects. Its low upfront emissions, long service life, and ease of reuse make it a strong contender in sustainable design.

Stone has proven its ability to endure for centuries

"By choosing stone – especially local materials – it's clear that projects can achieve meaningful carbon savings without compromising performance or aesthetics. Stone connects tradition and innovation, and this new report reminds us that sustainable choices today can shape the strength and beauty of tomorrow's built environment."

Photo credit: Darney Quarry, Hutton Stone





Border force

The vast contribution of quarried construction materials to Scotland's economy has been highlighted for the first time in a new report ahead of the introduction of the Scottish Aggregates Tax.

In the first report of its kind, The Economic Contribution of Primary Aggregates in Scotland reveals the scale and strategic importance of the quarried materials sector to the country's prosperity, at a time when the industry prepares for the introduction of the new Scottish Aggregates Tax in April 2026.

Commissioned by MPA Scotland, and conducted by Edinburgh-based consultancy BiGGAR Economics, the study shows that in 2024 the sector generated £450 million Gross Value Added (GVA) and supported 4,930 Scottish jobs. In the same year the industry generated £99.1 million in tax contributions in Scotland, including £60 million from the existing UK Aggregates Levy.

The report also highlights that aggregates made in Scotland account for nearly one-fifth of total UK production – quarries north of the border produce around 22 million tonnes of crushed rock and 5 million tonnes of sand and gravel each year.

With GVA per head at some £113,850, productivity in the aggregates sector is significantly above the Scottish average for all sectors of £74,420, reinforcing its role as a high-value, high-productivity industry that also anchors employment in rural communities. Local production and supply also helps retain spending and tax revenues within Scotland, avoiding the carbon emissions and cost impacts of long-haul imports such as steel.

The report was launched at an event in Edinburgh, attended by more than 100 delegates including senior officials from the Scottish Government, Revenue Scotland, Scottish Renewables, Transport Scotland, Crown Estate Scotland, the University of Dundee and the RSPB.

Speaking at the event, Daniel Johnson MSP, Shadow Cabinet Secretary for Economy, Business and Fair Work, said: "It's vital that we recognise the fundamental role of the aggregates industry as a key enabler of infrastructure and growth in the Scottish economy.

"Hewn from the earth here in Scotland, these materials literally form the foundations and the fabric of our built environment, underpinning housing, public services, transport, and renewable energy developments such as grid upgrades and offshore wind. The Scottish Government must work with the industry to ensure a predictable regulatory environment."

Alan Doak, Director of MPA Scotland, said: "The findings in this report provide strong evidence as to the importance of the primary aggregates industry to Scotland's infrastructure, economy and net zero ambitions.

"The forthcoming Scottish Aggregates Tax, is only the third devolved tax to transfer from the UK Government, following Landfill Tax and Land & Buildings Transaction Tax. Future policy and fiscal decisions need to be informed by robust evidence and dialogue with producers to prevent another great Scottish manufacturing sector from being crushed whilst economic opportunities are lost.

"Crucially, there's a misconception that Scotland has a readily available source of recycled materials waiting to be tapped into. Whilst the industry recycles whatever it can – there is a limited quantity of recycled aggregate available. We need a balanced, data-driven approach to ensure Scotland's construction industry is properly supplied with essential aggregates."

MPA Scotland continues to advocate for the establishment of a Scottish Minerals Forum to ensure the Scottish Government works collaboratively with the sector to plan future supply and manage the transition to the new tax regime whilst delivering for the needs of the Scottish economy.

The full BiGGAR Economics report, The Economic Contribution of Primary Aggregates in Scotland, is available at mpascotland.org.

MEMBERS A snapshot of recent news stories from MPA members

Prince William opens new road after appeal

The Prince of Wales has officially opened a new road at Mousehole AFC near Penzance built by a consortium of MPA members.

Following a national appeal – championed by Prince William – to fix the narrow, pothole-ridden access lane at the Cornish club, GRS Group stepped in and, with the kind support of Colas, Holcim and Tarmac, built the smart new entrance route.

The work has been described as 'transformative', ending 40 years of frustration for players, fans and visitors to the Southern Football League Division One side, allowing the club to expand its offering of sporting, social and cultural events for the wider community.

His Royal Highness said he was impressed by the new road and thanked the team involved before going on to meet players and fans.

World-first carbon capture project

The world's first carbon capture facility to enable fully decarbonised cement production in the UK has been given the green light.

Energy Minister Michael Shanks recently announced the final investment decision allowing construction to start on the pioneering carbon capture and storage (CCS) project at Heidelberg's Padeswood cement works in north Wales.

Mr Shanks said: "This trailblazing cement works showcases the north Wales workforce on the global stage – leading the charge in the clean industries of the future and powering Britain's reindustrialisation through this UK-first project."

The facility is expected to enable the production of carbon captured near-zero cement by 2029. It will capture around 800,000 tonnes of CO_2 a year which will be compressed and transported via an underground pipeline for secure storage under the seabed in Liverpool Bay as part of the HyNet North West project.

Low carbon cement from demolition waste

Production of a new low-carbon cement formulation made partly from recycled concrete fines (RCF) has been demonstrated in the UK.

Holcim took part in the project which brought together industry bodies including MPA, plus engineers and researchers to develop an RCF-based cement as a lower-carbon alternative to Portland cement.

The demonstration showed the feasibility of using RCF from demolition as a supplementary cementitious material, replacing around 20% of clinker. By reducing the clinker in cement blended products, the overall carbon footprint is reduced.

In the loop

Cemex has teamed up with The Pallet LOOP to ship out packed cement products on the scheme's reusable green pallets.

The move means replacing largely single-use pallets with a circular logistics system designed for repeated recovery and reuse. LOOP's FSC-certified pallets are supported by a nationwide collection service that rewards customers for returns, helping cut wood waste and costs. Cemex is the first cement manufacturer to adopt the system and has plans to extend the scheme across its wider product portfolio.

Social signage

Tarmac has awarded a national road signage contract to social enterprise charity Royal British Legion Industries (RBLI), expanding the partnership between the two.

RBLI provides direct employment to military veterans and people with disabilities. The deal will see signage produced at RBLI's Kent and Glasgow factories, helping to sustain and expand work opportunities whilst delivering high-quality products and measurable social impact. The agreement strengthens Tarmac's commitment to the Armed Forces Covenant while creating meaningful employment for veterans and those with physical and mental health challenges.

Flower power

Brett supplied recycled aggregates to the Avanade Intelligent Garden at this year's RHS Chelsea Flower Show, which secured a gold medal and the award for 'best construction'.

Designed by Tom Massey and architect Je Ahn, the urban forest garden showcased how sensors and AI can monitor conditions such as soil, air quality and tree growth to help extend the lifespan of city trees. The recycled materials formed a durable, well-draining surface that supported plant life and achieved long-term performance. After the show, the garden was moved to Mayfield Park in Manchester, where it continues to showcase urban biodiversity.

WHEN IS A MINERAL CRITICAL?

The drive for net zero relies on renewable energy sources, energy efficient buildings and electrification of transport. But one mineral that's critical to the energy transition has yet to hit the headlines – industrial sand.

Industrial (or silica) sand is the essential feedstock for an overwhelming array of products that support modern life. Without it, numerous industries would, quite literally, grind to a halt.

In a newly published mineral planning factsheet, Industrial Sand Future Markets, the British Geological Survey (BGS) puts the spotlight on one of the most economically important minerals extracted in the British Isles.

Whilst the many markets and applications for industrial sand are very different, they all have two things in common:

(1) They support much larger, often high-value industrial sectors

(2) They require specific properties which only a few quarries produce.

With decarbonisation almost permanently in the limelight, two applications that are going to need a sustained and sustainable supply of UK industrial sand are glass fibre for wind turbines and flat glass for double and triple glazing.

Sand in the blades

Glass fibre reinforced plastic has become indispensable in modern wind turbine blades. Each blade, weighing around 30 tonnes, contains roughly 50% glass fibre – and about 60% of that fibre is industrial sand. So nearly a third of the mass of a turbine blade is industrial sand.

This is compounded by the fact that there are currently no viable recycling routes for glass fibre used in blades. Unlike container glass, which can be endlessly recycled, turbine blades demand virgin raw material. As the UK expands its offshore wind capacity, demand for high-purity silica sand will rise too.

Unfortunately, the closure of the UK's only continuous filament fibre manufacturing site in mid-2025 has already increased reliance on imports, underlining the strategic importance of domestic manufacturing and sand supply.

Full transparency

High-purity industrial sand is the backbone of flat glass for double and triple glazing. To produce these energy-efficient window units, manufacturers require silica content of 98.5–99% with tightly controlled levels of iron and alumina.

As the UK moves towards stricter carbon-emissions standards, glazing will play an increasingly central role in improving building performance. The forthcoming Future Homes and Buildings Standard is likely to drive a shift towards triple glazing, a measure that could increase flat glass requirements for new homes by around 50% and accelerate a drive for retrofitting existing properties. This represents a major potential growth area for industrial sand demand, and maintaining secure domestic supplies of high-purity material will become increasingly important. Another area where flat glass is also necessary is for solar panels, although current UK industrial sand quarries are not supplying this market.

Supply strains and risk

The BGS survey shows that total industrial sand production in Great Britain fell slightly from 4.9 million tonnes in 2018 to 4.7 million tonnes in 2023. This reduction, however, is minimal considering the broader decline in construction materials in the same period. Longer term analysis of production figures demonstrates that annual sales of industrial sands have hovered around 5mt for over two decades, with specialist applications such as energy technologies on the rise. The North West of England remains the largest producing region, but reserves overall have dropped by 5% since 2018.

"This matters because downstream manufacturers rely on those narrow specifications of sand that can only be sourced from a handful of quarries," said Nick Horsley, MPA Director of Planning and Industrial Minerals."Government policy makers have yet to realise that industrial sand is the non-metallic mineral backbone of the country's energy transition, let alone its extensive array of other uses. Right now it's vital to ensure that UK reserves, planning permissions and supply chains keep pace with demand."

For producers this presents both a challenge and an opportunity. By securing sustainable domestic production of industrial sand, the industry can secure its place in underpinning the UK's ambitions for clean energy – proving once again that the path to net zero is less about policy and innovation, and more about the raw resources beneath our feet.

Industrial Sand Future Markets is available on the British Geological Survey website (www.bgs.ac.uk/mineralsuk)