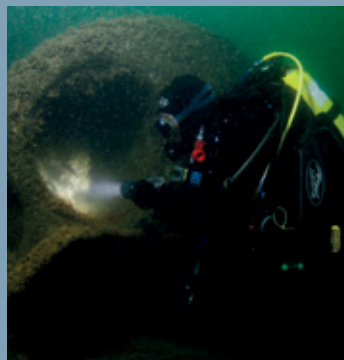


mineral

products today

Delivering concrete ambitions



Standard bearers
continuity is key

Heated debate
cool as concrete

Under the sea
wrecks revealed

WELCOME

With their sights set on the year-end and the prospects for 2019, MPA members are no doubt already making the necessary adjustments to reflect a market that has remained, at best, sluggish.

In spite of a much needed 'rebound' in activity in the second quarter after a disappointing start to 2018 – economically at least – the stagnant construction market, coupled with escalating costs, is squeezing our sector. Based on current evidence from our membership, the uncertain outlook is enough to cause real concern in many boardrooms. Corrective action will need to be considered sooner rather than later.

What is so frustrating is that we can clearly see a number of major public sector infrastructure projects which could be accelerated so that under-utilised capacity throughout the

supply chain could be switched on to boost confidence and build economic momentum.

I am proud that our industry meets these challenges head on – as we always have done – and as this edition of Mineral Products Today shows, we're taking firm action in areas like product performance, quality standards, developing a skilled and competent workforce and our top priority, health and safety.

Ultimately the key to our primary task of sustaining a supply of products to underpin construction and manufacturing lies in our long-term licence to extract minerals from the land.

On this, at least, Government is listening! I am heartened to see that the essential nature of mineral products is being recognised and reflected in a number of key policy documents

– the Construction Sector Deal and National Planning Policy Framework – alongside our own industry-led UK Minerals Strategy.

We all benefit from essential products like concrete, the world's most widely-used, versatile and cost-effective building material, capable of creating incredible structures like the stunning new V&A Dundee. But we need to be able to plan for, monitor and manage concrete's main constituents – aggregate and cement. Their supply cannot simply be assumed.

Martin Riley, Chairman, MPA



Growth hopes pinned on infrastructure

MARKET demand for mineral products rebounded in the second quarter of 2018 after poor weather seriously affected UK construction activity in the first three months.

In a quarter where UK manufacturing technically went into recession, it was the construction industry's output (along with growth in the services sector) that pushed GDP up as warmer weather helped to improve ground conditions.



Projects like HS2 are expected to increase demand for mineral products in 2020

After correcting for seasonal variations, sales volumes for aggregates and ready-mixed concrete increased by 9.2% and 9.8% respectively in Q2 of 2018 compared to the previous quarter, and by 11.3% for asphalt. Mortar sales recovered strongly in Q2, up 20.9%, reflecting the momentum in housebuilding.

Beyond quarterly variations, longer-term trends have remained subdued, with volumes for all materials except mortar lower in the first half of 2018 compared to the same period last year.

Looking ahead, prospects remain weak according to MPA director of economic affairs Aurelie Delannoy: "Uncertainty around Brexit and any future relationship with the EU continues to weigh down on private investment, including for sectors like construction," she said.

"This is not helped by continuing uncertainty about the delivery of major infrastructure projects in the pipeline and related timings. The

construction supply-chain, including mineral products, is key to the delivery of current government policy in housing and infrastructure but it's a challenge when it comes to planning for future work and investment."

According to the Construction Products Association (CPA) – of which MPA is a member – construction output is expected to fall by 0.6% this year. A return to growth is forecast from 2019, when activity is anticipated to receive a boost from housing and infrastructure schemes like HS2, Hinkley Point C and Thames Tideway.

MPA expects sales volumes for mineral products to decline in 2018 compared to last year and to remain broadly flat in 2019. With the exception of further growth expected in house building, construction activity is expected to decline in the commercial sector and anticipated growth from major infrastructure projects is now expected to feed through more slowly, most likely in 2020, reflecting continuous delays in delivery.

Front cover: The stunning V&A Dundee international design centre which opened in September 2018. From foundation to facade, Kengo Kuma's groundbreaking design has been realised thanks to ready-mixed concrete from Breedon and 'cast stone' concrete cladding from Techrete.

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Page 1 photo (Middle):
Courtesy of The Concrete
Centre, © Jack Hobhouse



"Build confidence, encourage investment"

ACHIEVING sustainable economic growth and securing a good deal on Brexit must be the Government's primary focus for the year ahead.

That's the thrust of the MPA's representation to the Treasury ahead of the Chancellor's Autumn Budget Statement 2018.

The MPA's budget submission provides policy proposals in seven key areas:

- The need for a Brexit outcome which maximises UK access to overseas markets and enables access to labour/skills
- A continuing focus is required on infrastructure delivery, including better connectivity within and between Regions and a more effective system to enable better maintenance of local roads
- The need to deliver a long-term increase in new housing provision and back up policy intentions

- Freeze the Aggregates Levy rate in 2019/20, establish a new more targeted Aggregates Levy Community Fund and tax the aggregates content of imported mineral products
- The need to protect the competitiveness of UK Energy Intensive industries such as cement and lime, notably with regard to energy and climate change-related costs
- Maintain the availability of rebated red diesel for the mineral products industry
- Improve the quality and implementation of UK regulation by implementing opportunities identified in the mineral products cutting red tape review

"The significance of mineral products has been highlighted recently in the Industrial Strategy Construction Sector Deal, the updated National Planning Policy Framework (NPPF) and the recent UK Minerals Strategy," said MPA executive director Jerry McLaughlin.

"There are also a whole raft of plans underway where the Government is going to need the mineral products sector, from delivery of its industrial strategy, infrastructure pipeline and housing ambitions to its strategies for clean air, waste and resources and biodiversity.

"It is vital that the Government's primary focus is on achieving sustainable economic growth and securing a good deal on Brexit to build confidence which will encourage investment. There is a lot of engagement going on with Government to try and ensure the best Brexit outcome for business."



Securing a good deal on Brexit must be the Government's focus.

More action to safeguard cyclists and pedestrians

MPA has stepped up its call for a greater commitment to vulnerable road user safety following more tragic cyclist and pedestrian fatalities.



While many in the supply chain – including MPA members – have made big improvements and shown commitment to

CLOCS, the construction industry road safety initiative, not enough contractors and clients are operating to the CLOCS standard.

MPA chief executive Nigel Jackson says there needs to be full construction industry commitment to road safety and CLOCS to have any chance of eliminating harm to cyclists and pedestrians.

"If we want practical solutions for road safety, and particularly for the most vulnerable of road users, Government should insist that all public sector construction contracts require suppliers to be CLOCS compliant," he said.

"Contractors and private sector construction clients, many of whom are clearly committed

to on-site safety, should operate in the same manner outside the site gate in accordance with CLOCS and insist that their suppliers do.

"There is a need for all major infrastructure developers responsible for spending significant sums of public money to be equally committed, not just some."

CLOCS recognises that all parts of industry have a key role to play in improving road safety. Suppliers and their hauliers should ensure drivers receive targeted training, and fit HGVs with additional safety equipment beyond legal requirements.

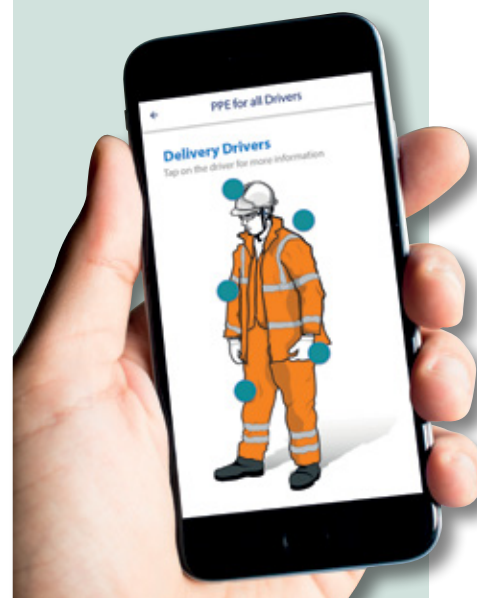
Furthermore, contractors should ensure delivery sites have good access and safe unloading facilities and clients should make adherence to CLOCS a procurement requirement.

"The CLOCS website shows the organisations who are committed and by inference those who are not. But commitment is only part of the story and action on the ground is key and the supply chain as a whole needs to raise its game collectively if we are to avoid being judged by the worst offenders."

Driver safety app coming

MPA is in the final stages of producing the Driver's App previewed at the Hillhead exhibition over the summer.

The app will include information covered in the existing driver safety handbook, information on CLOCS and FORS and a range of resources to help improve the health and safety of all road users.



No time for complacency

It's not hard to be politically neutral given the country's predicament – four political forces masquerading as two major parties, a centre ground the silent majority yearn to occupy, with no credible runner to back. Like it or not, feeling disenfranchised and populist opportunism are on the rise.

An ageing population, perhaps inhibiting a millennial world where historic attitudes can seem inward and even backward-looking, conflicts with a younger generation, who are more attuned to issues around gender, race, nationality and migration, and are challenging conventional wisdoms! Is it any wonder that so much in politics seems to be more about division rather than unity?

It is increasingly apparent that the next few years will continue to offer an unedifying spectacle as we leave one Union and then deal with the consequences within our own. But irrespective of political variables and media mischief, trains need to run, homes need to be built, roads need to be maintained and infrastructure developed.

Our day-to-day needs must be provided for regardless of the distractions and intrigue of Westminster. Sustaining and growing our £1.8 trillion annual economy has to be the overriding priority – improving productivity to allow higher wages to be paid, boosting demand and ensuring public services are

provided and improved. One might justifiably ask who is actually managing the shop while there are fights in the stockroom?

"Our day-to-day needs must be provided for regardless of the distractions and intrigue of Westminster. Sustaining and growing our £1.8 trillion annual economy has to be the overriding priority."

Government needs to get a grip – and fast. There can be little comfort for anyone that a prediction of post-referendum recession never happened, given that economic growth has been declining ever since and is likely to remain anaemic for some time to come. There is a dangerous complacency that current growth rates around 1.5% are acceptable. They are not. Any growth lower than our historic average of nearer 2.5% is lost prosperity: lost demand, lost spending, lost tax, lost impetus. A low-tax enterprise economy, proportionately regulated, that



VIEWPOINT by MPA chief executive
Nigel Jackson

can secure the skills it needs – all of its skills, with no arbitrary distinctions on high or low – that is able to trade in key markets with fair competition and equal standards, should be our enduring aim and firm measures put in place to achieve it.

Our politicians are adept at stating obvious aspirations, consistently over-offering and under-delivering. The collective understanding of what drives demand and what enables supply, whether it is energy, food, or mineral products, is low and often breathtakingly so.

However, there are positive signs. The Construction Sector Deal which recognises the importance and role of our supply chains is welcomed, as is recognition by Government of the industry-led UK Minerals Strategy. Government is also to be commended for producing a revised version of the National Planning Policy Framework (NPPF), which ensures the essentiality of minerals and mineral products, is accepted and is material to future release of land for extraction and added value activity. These three key developments are important in that, together, they hold out the prospect that this industry, upon which construction, as well as countless others depend, will continue to enable our schools, hospitals, homes, transport and energy infrastructure to be built, without which our quality of life would only diminish.

In these troubled times it's more critical than ever to keep our eye on the ball both despite and because of Brexit. Boosting demand by building the confidence needed for investment and innovation, and then freeing-up supply are vital to increase economic growth from current levels. The mineral products industry always stands ready to help any Government deliver its agenda for the built and natural environment. We are very much part of the solution to whatever problems are faced.



Key measures to deliver the UK Minerals Strategy



The UK Minerals Strategy aims to ensure that UK demand for minerals and mineral products is supplied sustainably for the next 25 years. This will require identifying and permitting at least 5 billion tonnes of mainly construction and industrial minerals to be sourced primarily from indigenous resources. To achieve this, Government and relevant stakeholders should:

- recognise that minerals and mineral products, and the industry that supplies them, are essential to the economy and our quality of life
- recognise that supply cannot be assumed; it needs to be planned, monitored and managed
- ensure steady and adequate provision is made, primarily through the land use planning system
- establish supportive policy, operating and trading conditions to enable UK industry to thrive and invest in future supply

Of overriding importance is the requirement for a strong national minerals and mineral products policy and statement of need. These would inform and underpin national, regional and local planning to enable sufficient minerals and mineral products to be supplied to key sectors of the economy.

Supply cannot be assumed

Meeting the five-billion-tonne demand for mineral products for the next generation isn't going to happen without a bit of forethought. Introducing the UK's first Minerals Strategy...

THE CRITERIA to ensure a sustainable supply of minerals and mineral products for the next 25 years have been set out in the new UK Minerals Strategy, the first document of its kind ever to be published.

Using a triple bottom line model, the strategy outlines the industry's commitments and its expectations of Government to sustain a supply of minerals for the next generation.

And with the launch of the landmark document came a ringing endorsement from Government which not only says it recognises the economic importance of minerals but also acknowledges that the

industry's role is "often unappreciated".

Prepared on behalf of the mineral products industry by the CBI Minerals Group and the MPA, the UK Minerals Strategy estimates the country's demand over the next 25 years will be at least five billion tonnes, most of which must be sourced from within these shores.

To achieve this demand the strategy highlights the need for recognition – particularly from Government – that mineral products are essential, that supply cannot be assumed and that a supportive national policy and conditions for planning, operating and investing are put in place.

The UK Minerals Strategy was launched in July at the sixth 'Living with Minerals' (LWM6) conference by Niall Mackenzie, director of infrastructure and materials, on behalf of Richard Harrington MP, minister at the Department for Business, Energy and Industrial Strategy (BEIS).

Hosted by the CBI Minerals Group in partnership with the MPA, the conference celebrated the industry's many successes while reiterating the need to better 'make the link' between minerals and mineral products, and the economic benefits to our quality of life.

The LWM6 event, attended by over 160 delegates representing more than 90 organisations, included panel sessions with

speakers drawn from the industry, regulators, planning authorities and non-governmental organisations.

Speaking at the conference, Mr Mackenzie said that supporting a productive, innovative, sustainable and successful minerals sector was a common objective: "The UK Minerals Strategy will help to achieve this. It provides a clear strategy for a sector that plays such a key role in the UK economy.

"Without mineral products, not only would we be unable to build our homes, roads, railways and places of work, we also couldn't produce the food we eat, the electronic devices we use, or the chemical products on which we rely every single day," he continued. "All these

sectors start with minerals, so we should appreciate that, and appreciate the sectors that produce them."

He went on to acknowledge that the mineral products industry played a vital, but often unappreciated, role in the UK economy. "That is something that the Government would like to change, through our Industrial Strategy, and in particular, the Construction Sector Deal.

"The Construction Sector Deal sets out an ambitious strategy for the whole of the construction sector and supply chain; from minerals and products to contracting and professional services – all of which will be vital to the success of the Deal."

9 KEY PILLARS OF THE UK MINERALS STRATEGY

ECONOMIC	ENVIRONMENTAL	SOCIAL
 <p>DEMAND & IMPORTANCE Government should provide clear national policy and a statement of need for minerals and mineral products to underpin local plan-making, policy and decisions to enable a steady and adequate supply of minerals and mineral products to be maintained.</p>	 <p>PLANNING & REGULATION Government should ensure that the mineral planning system is properly resourced to operate effectively and that duplication with other regulation, particularly environmental permitting, is minimised.</p>	 <p>EDUCATION, SKILLS & EMPLOYMENT The Industry will continue to provide attractive career opportunities and meet skills needs for a modern, healthy, safe, well-educated and diverse workforce and encourage people to choose to work in the industry.</p>
 <p>SUPPLY & DISTRIBUTION The Industry will submit sufficient planning or marine licence applications. Mineral planning authorities and marine regulators should ensure that sufficient sites are allocated in plans and consents or marine licences granted, to maintain a steady and adequate supply of minerals and mineral products to meet demand, while also ensuring that reuse and recycling is maximised.</p>	 <p>ENVIRONMENTAL BENEFITS The Industry will aim to deliver environmental net gains through responsible site management and high quality restoration, adding to the wildlife, recreational and landscape assets already created.</p>	 <p>PUBLIC UNDERSTANDING & ENGAGEMENT The Industry and Government should work with stakeholders to improve public understanding of the need for minerals and mineral products and their associated supply chains, and strengthen the evidence base and availability of relevant data.</p>
 <p>TRADE & INVESTMENT Government should ensure there is a supportive regulatory, operating and trading environment to encourage investment, trade and export of UK minerals and mineral products, and reduce risks from insecurity of international supply.</p>	 <p>ENVIRONMENTAL IMPACTS The Industry will continue to avoid and mitigate the impacts of extraction, processing, manufacturing and transportation as part of the transition to a low carbon and circular economy.</p>	 <p>RESEARCH & INNOVATION The Industry will encourage and invest in innovation, research and development, including the identification of new resources and the development of new markets.</p>

"The industry has been working towards the development of a UK Minerals Strategy over the last 20 years."

Nigel Jackson, MPA chief executive and chair of the CBI Minerals Group

Nigel Jackson, MPA chief executive and chair of the CBI Minerals Group introduced the Strategy on behalf the industry saying: "The industry has been working towards the development of a UK Minerals Strategy over the last 20 years. Previous 'Living with Minerals' conferences have helped the industry engage with key stakeholders to try and develop a balanced strategy built around sustainable development principles.

"It's taken an enormous effort by people within the industry and many of our stakeholders to get this far. We're now in a position where our voice is being heard and dialogue with stakeholders is extremely constructive.

"We're now in a position where our voice is being heard and dialogue with stakeholders is extremely constructive."

"The UK Minerals Strategy will enable the next generation in the industry build on the lessons of the previous and also help glue the wider industry together to face the challenges of the future, not least maintaining a steady and adequate supply of all our mineral needs."

The nine pillars which underpin the Strategy create a platform for future work with relevant stakeholders.

Delivery of the Strategy will require the involvement of Government Departments in England, Scotland, Wales and Northern Ireland.

The UK minerals and mineral products industry will engage with Government and stakeholders to ensure that the broad aims of the Strategy are delivered, using the key pillars as the basis for further work. The UK Minerals Forum may have a contributory role to play in encouraging dialogue and the development of solutions.

DEAL OR NO DEAL?



MPA has welcomed the UK Government's much-anticipated Construction Sector Deal, which makes the link between construction and the need for mineral extraction and product manufacturing.

Part of the Government's Industrial Strategy, the £420 million Construction Sector Deal acknowledges that the mineral products sector can deliver increased benefits to the UK through strengthening the construction supply chain across the country.

Launching the deal in July, secretary of state for Business, Energy and Industrial Strategy (BEIS) Greg Clark MP said: "Our construction industry makes a vital contribution to the UK economy and is one of our most important sectors, with

businesses that add £138 billion a year to the economy, contribute 8% of our GDP, and employ over 3.1 million workers."

The mineral products industry has emphasised the sustainability benefits of using indigenous minerals and mineral products for the construction of housing and infrastructure projects, such as Highway England's roads programme, Hinkley Point C and HS2.

MPA also supports the Government's commitment to transform construction through use of digital technologies like Building Information Modelling (BIM) and has highlighted the advantages of using concrete in offsite construction to improve fire resistance, thermal mass and resilience to climate change.

Essential means essential

The essential role of mineral products has been reinforced in the Government's new National Planning Policy Framework, which has been welcomed by the MPA. But it could have been a different story...

THE FIRST revision of the National Planning Policy Framework (NPPF) since 2012 – with more than 80 reforms – came into force in the summer of 2018. The 73-page document sets out the Government's planning policies for England and how these should be applied. It provides a framework for producing locally-prepared plans for housing and other developments such as minerals and mineral products. According to the Government, the new framework will empower councils and help them to hit ambitious housebuilding targets.

The final version of the NPPF has been welcomed by the minerals products industry, but only after MPA made strong representations to the Ministry of Housing, Communities & Local Government to overturn proposed changes that would have further weakened the mineral planning system and threatened the replenishment of mineral reserves.

Proposals in the Government's original draft could have reversed the long-held recognition that minerals are 'essential', a central principle of the Managed Aggregate Supply System (MASS) which helps to balance supply and demand, ensuring that regions where resources are abundant work with regions where they are in demand to ensure the overall need is met.

The MPA's comments on the NPPF draft consultation were among a massive 29,000 responses, many of which were related to minerals planning. Summarising the feedback received on its draft, the Government said it recognised that planning for minerals was essential to increasing the supply of housing and other development, and that without updated guidelines, there was a real risk of sterilisation and under-provision of mineral reserves.

This is best exemplified by the fact that the current replenishment rate for mineral

reserves stands at around 53% for sand and gravel and 69% for crushed rock, based on a 10 year average. So for every 100 tonnes of sand and gravel consumed in Great Britain over the past decade, only 53 tonnes has been replenished through new planning consents. Meanwhile, the number of homes granted planning permission has almost doubled since the introduction of the NPPF. Coupled with the growing demands for construction materials generated by Government's infrastructure development ambitions, the current situation is unsustainable.

For every 100 tonnes of sand and gravel consumed only 53 tonnes is currently being replenished.

Government has acknowledged the issue, saying: "A number of representations pointed out that while the MASS may be acknowledged in the NPPF, it has ceased to function in practice. The Government notes the case for revitalising the MASS. Doing so raises important questions of resources, capability and how to do so in a modern, data-science led way." It goes on to state its intention to explore these issues further.

In Chapter 13, 'Facilitating the sustainable use of minerals' the revised NPPF states:

It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs.

"Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation." It goes on to explain what minerals planning authorities should do to plan for a steady and adequate supply of aggregates.

"The overall message from Government is positive", said Mark Russell, executive director of planning at the MPA. "While the NPPF understandably focuses on priorities around housing it also recognises that the sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs is essential.

"The continuing need for mineral planning authorities to plan for a steady and adequate supply of aggregates and industrial minerals reinforces the fact that supply cannot be assumed. Rather, it needs to be planned, monitored and managed to ensure that the right minerals are made available in the right place and at the right time to support Government's priorities around housing and infrastructure."

HUNDREDS of European standards govern the UK mineral products industry and most have been heavily influenced by the UK. With Brexit on the horizon, MPA is supporting the case for maintaining close ties with Europe to ensure the industry remains competitive.



CONTINUITY IS KEY!

There are standards for everything to ensure fitness for purpose. Mineral products are no exception, with an array of codes and standards governed by the European Committee for Standardization (CEN) and mirrored for use in the UK by the British Standards Institution (BSI).

European standards – and the EU legislation that draws on them – control every aspect of the way minerals are extracted, how products are made and the way they are specified to ensure performance. And today European standards frequently provide the blueprint for standards all over the world.

Meeting these standards is a company's 'licence to place their products on the market', ensuring materials can be specified, production conforms to acceptable standards, and that there's a level playing field with true competition throughout the supply chain.

Over the years the MPA has actively participated in BSI and CEN standards development with representation on a myriad of committees to help shape European standards that allow for innovation and consider best practice.

Regulations also call upon these standards. From emissions trading, use of hazardous materials (REACH) and construction products regulations covering building design and CE marking, to laws governing wellbeing, safety and the environment, MPA has represented the UK industry to ensure standards are reasonable, practical and fit-for-purpose.

But is that all about to change?

"Whatever happens after March 2019 the UK needs to continue a close alignment with European standards and regulation," says Pal Chana, the MPA executive director responsible for standards.

"Over the years the UK has played a major part in the development of European standards, and after Brexit our influence should not be diminished. Standards affect every aspect of our members' operations and we have invested heavily to ensure practical world class common standards. A continued dialogue with CEN and Brussels will be all the more important if the UK is to remain

competitive and take up opportunities for innovation and boosting productivity.

"Equally important is the impact on trade where common international standards provide a passport to trade. Producers want to make a product for several markets based on a single standard. Opting out and developing our own set of standards would inevitably be more onerous and costlier. Companies buying and selling products – and the equipment used to make them – across the channel would have to design, produce and test to different standards adding to the regulatory burden on businesses.

"That's why the MPA strongly supports the commitment of BSI to remain a member of CEN and to retain strong collaboration between UK and European standards. This is a position supported by CPA, Confederation of British Industries (CBI), and professional organisations throughout the construction sector. We have consulted extensively with Government, which now also recognises the importance of standards and the need for continuity of the current system."

Every aspect of construction is regulated by European standards. To diversify would be a mistake.

Forgotten Wrecks of WW1

Photo: Mike Pitts/ Maritime Archaeology Trust



Photo: Maritime Archaeology Trust

Left: A diver explores one of the Camberwell's boilers. Above: The bow of the Camberwell emerges

One hundred years after the end of the First World War a major project to research, record and raise the profile of the war effort at sea has come to fruition with the support of UK marine aggregates companies.

HISTORIC remains from the First World War lie, largely forgotten, in and around our seas, rivers and estuaries. So to coincide with the centenary of the Great War, the Maritime Archaeology Trust, based at the National Oceanographic Centre in Southampton, launched a research project to raise the profile of an aspect of the conflict many believe is under-represented.

'Forgotten Wrecks of the First World War' is a Heritage Lottery Funded four-year (2014-2018) project to explore wreck sites along the south coast of England, from merchant and naval ships to passenger, troop and hospital vessels, alongside ports, wharfs, structures and foreshore hulks.

These remains are often unrecognised and unprotected and have been degrading and deteriorating for the past century. As a result they have become extremely fragile and the project is seen as a final opportunity to record what's left on the seabed and foreshore before it is lost forever.

With over 1,000 wartime wrecks along England's south coast alone, the conflict at sea left a rich – albeit poignant – legacy and many associated stories of bravery and sacrifice. These underwater memorials represent the vestiges of a vital, yet little known, struggle that took place just off our shores.

But how do you set about gathering data from the sea bed?

As a limited number of wrecks can be dived, the Maritime Archaeology Trust turned to industries working in the marine zone, including members of BMAPA, the British Marine Aggregate Producers Association, which is part of the MPA.

Existing geophysical survey data from Cemex UK Marine, Tarmac Marine and Volker Dredging, has been used to gain detailed information on some of the surviving remains on the seabed.



Photo: www.wrecksite.eu

Photograph of the SS Camberwell

Julie Satchell, head of research at the Maritime Archaeology Trust said: "The Forgotten Wrecks of the First World War project has benefited from the generous support of BMAPA members who have provided geophysical survey data of wrecks lying within aggregate extraction areas."

The data has been bolstered with support from the Heritage Lottery Fund and has assisted in the planning of diving investigations and extended research on a number of case study sites.

Geophysical surveys are invaluable in confirming wreck positions and identities, as well as interpreting archaeological features and assessing condition.

The striking images derived from survey data are one of the most important ways of visualising these otherwise inaccessible sites.

Mark Russell, executive director for BMAPA said: "I am delighted that the marine aggregate sector has been able to play such an important role in this research project. Geophysical surveys are an important tool of the industry. The data that has identified the precise location of wrecks to allow licence areas to be sustainably managed has now become an invaluable resource for this project."

With the dedicated work of volunteers who have researched, recorded and reported findings, the Maritime Archaeology Trust has been able to transform raw data into educational resources, exhibits, videos, talks and presentations.

The final result of the project is an accessible database of information regarding the shipwrecks, associated finds and additional relative information to provide a lasting legacy of information and learning resources relating to the First World War wrecks for future generations.

For further details visit www.forgottenwrecks.org

The SS Camberwell

Above: Framing of the vessel visible in the mid ships area behind the boilers

THE wreck of the SS Camberwell lies five miles off the east coast of the Isle of Wight, within marine aggregate licence area 340. The site was surveyed as part of the assessment and monitoring work associated with the regulation and management of marine aggregate operations. Geophysical survey data was provided for study by Volker Dredging Ltd and Cemex UK Marine Ltd.

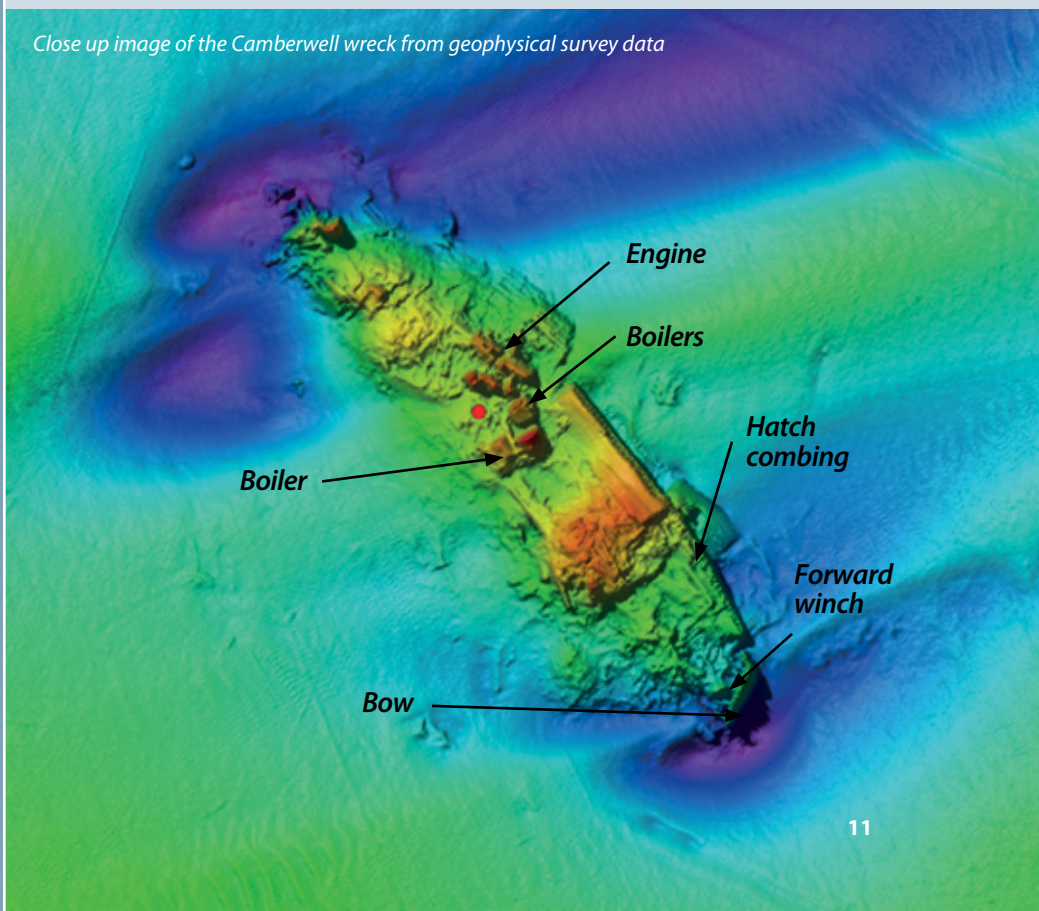
Built in Sunderland in 1903, the Camberwell was a 'steam screw' vessel with a crew of 65. It was sunk on a journey from London to India, carrying a diverse range of cargo – from asbestos, billiard table accessories and cement, to wine, x-ray apparatus and zinc sheets.

The ship hit a mine at 7.15am on the 18 May 1917 and, after a massive explosion, took a very heavy list to starboard and began to sink quickly.

The Camberwell now lies at a depth of 31 metres on a seabed of sand and shingle, the mast extending to within 21m of the sea surface. The vessel is well broken up but the bow and stern are intact and the 4.7 inch gun is still in situ on the stern. The ship's remains, including the cargo, are relatively well preserved.

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Close up image of the Camberwell wreck from geophysical survey data



LIME & REASON

No product has a more beneficial impact on farming than agricultural lime. Yet four decades after the withdrawal of the lime subsidy, many farmers are not making the most of this wonder-product. In a first for the UK, the Agricultural Lime Association has a solution.



THE BENEFITS of applying lime to agricultural soils are recognised by farmers the world over. Regular liming is widely known to enhance crop yields, balancing the acidifying effects of applied fertilizers and atmospheric conditions. Lime enhances the uptake of nitrogen, in turn reducing the potential for subsequent leaching losses of fertiliser residues.

Despite its importance economically and environmentally, there's been a decline in the use of agricultural lime ('aglime') since the removal of the lime subsidy in 1976. This may also be due in part to the decrease in acid rain since the 1980s, but research shows that farms are underperforming due to inadequate liming or choosing an inappropriate product. Put simply, all aglimes are not the same.

Failure to apply the correct amount and type of lime results in low pH (higher acidity) and is proven to lead to poorer soil structure, reduced nutrient absorption, impaired crop performance and weaker profitability.

So in a first for the UK fertiliser industry, the Agricultural Lime Association (ALA) has launched the Aglime Quality Standard (AQS) to help growers make the right choices to improve crop yields and maximise margins.



Independently administered by agricultural auditing specialists, the AQS tests chemical and granular properties of aglime products and materials ensuring they meet regulatory and reactivity standards.

Aglime producers achieving the industry-wide standard are awarded approved AQS status, which requires annual renewal, and have use of the AQS tractor 'tick' logo.

ALA manager Stephen Hill said: "The aim is to increase product understanding, knowledge and improve attitudes towards regular management of soil pH, raising awareness of different products, the criteria for appraising efficacy and encourage regularly use of aglime. The benefits far exceed the investment, optimising productivity and sustainability.

"ALA is actively promoting the standard widely to the agri-industry and advisory bodies as the baseline and guarantee of quality products," added Stephen Hill. "We are advising bodies that aglime products without an AQS report, logo and product data sheet may be cheaper, but we cannot guarantee product performance or benefit.

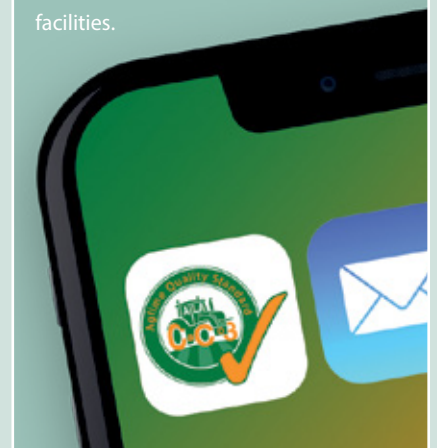
"ALA members have agreed on mandatory registration for all 85 plus quarries where aglime is produced – and the products themselves – whilst at the same time encouraging non-members to get involved."

The Agricultural Lime Association (ALA) aims to improve understanding of the many uses of agricultural lime in the UK. ALA represents the interests of its member companies on all issues of relevance to the agricultural lime industry. Very few agricultural operations have such a marked influence on soil husbandry, profitability and the environment as the application of naturally quarried agricultural lime to the land.

APP-LIME

AS PART of its drive to highlight awareness ALA is launching the Aglime App for farmers, growers and FACTS crop advisors.

The free downloadable app provides growers and advisors with in-field application recommendations based on the existing online ALA lime calculator. This provides advice specific to situations, soils and liming materials. Additional technical information on crop requirements, lime effectiveness, fertiliser utilisation and liming materials is included complete with a database of ALA and AQS-registered production facilities.





COOL AS CONCRETE

Pictured: Derwenthorpe, York is a new Joseph Rowntree Housing Trust development of affordable, eco-friendly family homes built using concrete.

After one of the hottest summers on record, the case for constructing homes in concrete has never been stronger.

According to the Met Office, the summer of 2018 topped the table of temperature records dating back to 1910, alongside 2006, 2003 and 1976, all within a fraction of a degree of each other. By the end of the century, when most of the homes built today will still be occupied, the UK is projected to experience a further temperature increase of up to 3°C (and 8°C in city centres).

Overheating is a relatively new issue for housing in the UK, but is already thought to affect up to 20% of homes – impacting wellbeing, comfort and quality of life. Sudden spikes in temperature and prolonged excess heat can be difficult to cope with, especially for the elderly, young children and those with an underlying health condition. Projections suggest a three-fold increase in heat-related mortality by the 2050s.

Recent years have seen an increased risk of overheating, especially in new homes, with studies showing that it's often an unintended consequence of better insulation, improved airtightness and lightweight construction methods.

The Parliamentary Environmental Audit Committee instigated a heatwave inquiry earlier this year, expressing concern about overheating and modular homes in their recent report entitled 'Heatwaves: adapting to climate change'.

The report recognises that many factory-produced homes of lightweight construction lack thermal mass, a physical property that concrete naturally has in abundance.

Tom De Saulles, building physicist and thermal performance expert at The Concrete Centre, said: "The Environmental Audit Committee is right to express unease about the overheating issue in modular housing, which can be more of an issue in lightweight homes that have little inherent thermal mass.

"The guidance we provide to designers about how to use thermal mass, in combination with shading and ventilation for cooling in summer, is essential in managing the risks of overheating."

"Although these 'passive' measures may need to be supplemented with active cooling in some climate change models, and in some building types, these important performance criteria should not be compromised as we try to meet the undoubted and urgent need for more housing."

The Concrete Centre provides technical guidance on reducing overheating, and is currently working with the Good Homes Alliance to provide evidence-based best practice to planning departments on the risks of overheating.

And although concrete – or to be more precise the cement used in concrete – has a significant carbon footprint, the manufacture of concrete represents a tiny fraction of the carbon created as a result of cooling and heating year-in, year-out over the lifetime of a building.

Executive director of The Concrete Centre Andrew Minson added: "Thermal mass offers an effective means of helping to reduce overheating when used in conjunction with good ventilation and solar shading.

"If we are going to tackle the problem of heatwaves without resorting to energy intensive air conditioning then we are going to need to employ all the passive measures available to us, of which thermal mass, inherent in masonry and concrete, has an important role to play."

How can concrete reduce overheating?

On warm summer days, walls and floors with thermal mass (eg concrete) will steadily absorb heat at their surface, and store it until exposed to the cooler air of the night. At this point, heat will begin to migrate back to the surface and be slowly released.

In this way, heat moves in an even wave-like motion, alternately being steadily absorbed

and released in response to the change in day and night-time conditions.

This natural response to changing conditions helps stabilise internal temperatures and provides a largely self-regulating environment, reducing the risk of overheating and the need for mechanical cooling from air conditioning.

TECHNOLOGY

Road building efficiency

TECHNOLOGY is helping to improve the speed and efficiency of highway construction and maintenance schemes.

Tarmac has adopted cutting-edge planning and real-time software to optimise road construction logistics and boost productivity.

The software allows Tarmac's contracting team to plan both major highways projects and inner city repair schemes in meticulous detail ahead of work starting on site.

Using GPS data to highlight every aspect of the job, the software produces optimised plans and schedules for people, plant and resources, minimising potential delays to keep things on track. The software automatically works out things like asphalt mixing and loading times, the trucks needed, and the pace of delivery.

Teams on the ground can access information in real-time through a mobile app, so they can track deliveries, monitor data relating to



the quality of the road installation and assess progress minute-by-minute.

Tarmac has already used the new technology on a busy stretch of the M62 near Leeds for Highways England.

CONSERVATION

Wildlife partnership

A NEW Local Development Fund and Leadership Awards are among the aims of a new three-year partnership between Aggregate Industries (AI) and The Wildlife Trusts (TWT).

Working together towards a shared vision, the new partnership will support innovative, on-the-ground projects involving the county Wildlife Trusts and AI quarries and operations.

The focus of the development fund will be on wildlife-rich towns and cities, healthy soils and water, and connecting people to



Stephanie Hilborne, CEO of The Wildlife Trusts and Francois Petry, CEO of AI

wildlife. The annual awards will recognise and celebrate the best schemes and teams.

The new partnership builds on AI's 10-year relationship with TWT which manages thousands of nature reserves and runs marine conservation projects around the UK's coasts.

ARCHAEOLOGY

Rare remains revealed

EXTENSIVE archaeology at Cemex's Langley Quarry in Berkshire has revealed a rare feature known as a causewayed enclosure, built in the early Neolithic period between 3800 and 3500 BC.



With less than 100 known causewayed enclosures in Britain, mostly across southern England, they are a rare find indeed and seen as important as they represent the earliest known examples of the organised enclosure of open space.

The early Neolithic period was a time of great development as it also saw the first mining of flint and quarrying of other forms of stone for the production of axes, and the construction of longhouses and ceremonial or ritual monuments.

Today, quarrying is one of the few ways archaeologists can rapidly reveal rare remains over wide areas.

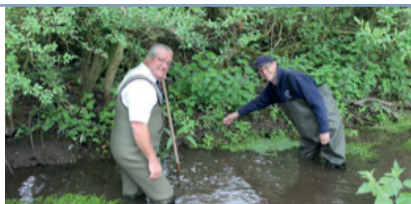
ECOLOGY

Wetland win

A WETLAND conservation project in Gloucestershire has received a boost thanks to support from the Hills Group.

Cotswold Water Park Trust (CWPT) received a major grant from Hills through the Landfill Communities Fund, plus funding from the Environment Agency for a two-year project to enhance two key sites in the park.

Shorncote Reedbeds and Cleveland Lakes – both restored mineral extraction sites



Peter Andrew, group director of Hills with Kim Milsom of the CWPT

– are among the area's most important wetland habitats. But the vital water link between the two, Cerney Wick Brook, is in poor condition, so the project will create and sustain a flourishing habitat to attract kingfisher, water vole and otter.

INFRASTRUCTURE

Sprayed concrete to ElecLink

Groundworks for an infrastructure development vital to the UK's energy security were completed by the Gallagher Group who also supplied the materials to the scheme.

ElecLink is a unique project to establish a high voltage direct current link between UK and European grid systems through the Channel Tunnel to allow the transfer and trading of electricity between Britain and France.



The works included a total of more than 17,000 cubic metres of concrete poured within the restricted Eurotunnel terminal zone – the project required supplying sprayed concrete that was completed in partnership with specialist sprayed concrete company Shotcrete Ltd.

CULTURE

Gormley sculpture stands firm on concrete



A life-sized iron statue by Turner Prize-winning sculptor Antony Gormley has drawn visitors from far and wide to the Kent coast.

But the statue – located on Margate's Fulsam Rock – has stayed upright despite the ravages of the sea thanks to a specially developed underwater concrete base supplied by Brett Concrete.

The solid cast-iron figure is part of Gormley's 'Another Time' series of one hundred statues which are installed all over the world, from the River Thames in London to Kunisaki in Japan.

The statue has been a source of great interest since installation and is expected to be removed later this year. The figure, which was cast from Gormley's own body, becomes visible about three hours before low tide and is fully submerged at high tide.

PEOPLE

Academy accreditation

GRS has become the first company in the sector to receive 'Recognised Provider' status from the Institute of Leadership and Management (ILM) in recognition of its employee development programmes.

Originally conceived by participants on the GRS Rising Stars scheme, the GRS Academy has come a long way since its launch in 2016. Hundreds of GRS staff have already taken part in courses, such as the intensive First Line Management programme.

As the UK's top leadership and management qualifications specialist, ILM helps to develop more talented leaders than anyone else, giving them the skills to make a real difference in their organisation.



SAFETY

RoSPA recognises MPA members

Achievements by MPA member companies have been recognised in the RoSPA Health and Safety Awards, the UK's longest-running industry awards scheme.

Colas was named as the Winner in the Construction Engineering Industry Sector in the internationally-renowned awards scheme. Meanwhile, Hanson Contracting was selected for a prestigious Patron's Award having

achieved 25 consecutive gold awards.

Eurovia achieved an Order of Distinction and Fleet Safety Gold in the awards. And Cemex UK's marine aggregates business was named as winner of the Mining and Quarrying Industry Sector Award.

Julia Small, RoSPA's Head of Qualifications, Awards & Events, said: "The RoSPA Awards

are the most highly-respected in the health and safety arena, with almost 2,000 entrants every year, and allow organisations to prove excellence in the workplace, demonstrating a commitment to the wellbeing of not only employees but all those who interact with it."



accidents don't have to happen

10 YEARS, 10 INSIGHTS

A decade since the launch of the UK Concrete Sustainable Construction Strategy, the industry is celebrating ten 'insights' into concrete's green credentials.

BEING the world's most widely used, versatile and cost-effective building material hasn't stopped the concrete industry from pushing the boundaries to deliver ever-better performance and even better evidence of its contribution to sustainable development.

The UK Concrete Sustainable Construction Strategy was a true milestone when it was launched in 2008. Ten years on and the sector is brimming with examples of how concrete supports sustainable development. Here's a snapshot of **ten insights** into this remarkable product.

INSIGHT #1: CARBON

Concrete's embodied carbon has reduced by 28% since 1990

Example: The recent refurbishment of the 1960s Centre Point building in London shows the longevity of concrete structures – a key factor in assessing wholelife carbon performance. Plus concrete absorbs atmospheric CO₂ over its lifetime, due to a process called carbonation.

INSIGHT #2: RESOURCE EFFICIENCY

The concrete industry is a net consumer of waste

Evidence: The industry used 116 times more recovered and waste materials than it sends to landfill. Concrete also provides designers with material efficient solutions such as post-tensioned concrete and visual concrete that save on concrete and finishes.

INSIGHT #3: RESPONSIBLE SOURCING

Over 90% of BES6001 certified concrete is 'Very Good' or 'Excellent'

Example: Over 200,000 concrete segments line the 42km railway tunnels that form London's new Elizabeth Line, all procured to high ethical standards. As concrete is locally sourced, full compliance was achieved and the BES 6001 standard has been widely adopted.

INSIGHT #4: WATER EFFICIENCY

The industry has cut mains water use

Evidence: The MPA's water strategy, adopted by the concrete industry, aims to improve water efficiency and optimise the most sustainable sources. Over the past 10 years the industry has reduced the use of mains water by 10%.

INSIGHT #5: NATURAL ENVIRONMENT

Over 99% of sites have a biodiversity action plan

Evidence: Around 8,000 hectares of UK priority habitats have been created following mineral extraction. MPA members manage or control over 115 square miles of land. Scores of nature reserves are now open to the public as part of the MPA National Nature Park, launched in 2013.

INSIGHT #6: RESILIENCE

Concrete offers resilience in an uncertain future

Example: Climate change and lifestyle demands make concrete ideal for high-rise developments. CZWG's all-concrete Hoola towers in London (pictured) combine stunning aesthetics with thermal mass (see p13), fire resistance, excellent acoustics, low maintenance and long-term durability.

INSIGHT #7: ECONOMY

Concrete is essential to UK prosperity

Evidence: Manufacturing concrete supports UK regional and rural economies. The average distance ready-mixed concrete travels from plant to site is just 12km. But the average delivery distance for all types of concrete is 45km, and 57km including its raw materials.

INSIGHT #8: WELLBEING

Concrete can improve quality of life

Example: The White Collar Factory in London features exposed concrete to provide a nicer feel inside the workplace and contribute to tenant wellbeing. Tenants can also save on energy bills; WCF's energy bills are 28% less than more traditional offices.

INSIGHT #9: STANDARDS & BENCHMARKING

Concrete goes above and beyond compliance

Example: Concrete is used extensively in London's Five Pancras Square development in King's Cross. Concrete played a part in ensuring the Bennetts Associates development was rated as 'Outstanding' by BREEAM, the world's leading sustainability assessment method.

INSIGHT #10: PERFORMANCE METRICS

A decade of data lays a foundation for the future

Example: Accurate data is key to the future of building information modelling (BIM). Use of BIM in the refurbishment of Kent University's Templeman Library (Penoyre & Prasad) meant the concrete frame and facade of precast concrete 'fins' could be developed concurrently.