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AIA
ASPHALT
INDUSTRY
ALLIANCE

Reporting on the asphalt industry

Issue 43 | Autumn/Winter 2019



COLOUR IS KING

Demarcation makes cycling safer

RUBBER REVOLUTION

Asphalt developed from recycled tyres

SHARING BEST PRACTICE

2019 event gets the thumbs up

TOWARDS ZERO NET CARBON



The UK achieved a significant milestone earlier this year when it became the first major economy to commit to being carbon neutral by 2050 and more than two thirds of local authorities have now declared a climate change emergency.

Against this backdrop, we've been urging those with responsibility for highways to consider Warm Mix Asphalt (WMA), which can help reduce the CO₂ emissions associated with asphalt production by around 15 per cent and is readily available now.

Working with the All Party Parliamentary Group on Highways we supported a report highlighting WMA's benefits (see page 9) a topic also covered at our recent *Sharing Best Practice* event (see pages 10-11).

Sustainability, cutting carbon and tackling the effects of climate change were recurring themes at this free annual conference for local authority highway specialists, which included a thought provoking presentation by Eurobitume Technical Director Mike Southern on Life Cycle Impact Assessment. This stressed the importance of considering durability and recyclability when assessing materials' sustainability credentials.

Successful trials of asphalt utilising rubber from recycled tyres in Coventry and the use of asphalt with a high percentage of reclaimed content on the M25, are two recent examples epitomising the methodical approach being taken to drive the use of innovative materials and processes, with both following years of technical development (see pages 4 and 6).

Encouraging more people to switch to cycling will also help cut carbon emissions from vehicles and there are striking examples of the part coloured asphalts can play (see page 5) while also enhancing the look and feel of our streets.

Rick Green
Chair, Asphalt Industry Alliance

MILLIONTH MILESTONE REACHED IN A14 IMPROVEMENT PROJECT

■ **The £1.5bn** A14 Cambridge to Huntingdon improvement project reached a major milestone when the millionth tonne of material was laid.

The A14 upgrade includes a new 12-mile bypass to the south of Huntingdon, plus improvements to 21 miles of the existing road. Work on the bypass is now a year ahead of schedule and the Highways England-led A14 Integrated Delivery Team has announced it will open to traffic in December.

Over 500,000 tonnes of asphalt have been laid on the project so far, with 70 per cent coming from an on-site asphalt plant. The project has posed some exacting logistical

challenges, including complicated traffic switches – one weekend in August saw more than 5,500 tonnes of asphalt continually mixed, transported and placed to transform the Bar Hill junction.

Commenting on the early opening, Highways England Project Director David Bray said: "I'm delighted that we will be able to deliver the benefits of this key section of the project so much earlier than originally planned.

"As well as a significant improvement for drivers, this will start to realise some of the benefits of the upgrade for residents and communities along the A14 too."



DIARY DATES

Some dates for your diary:

- | | |
|------------------|---|
| 18 March | 2nd South West Highways Alliance Conference – Highway to Zero Carbon, STEAM Museum, Swindon
www.transportxtra.com/tx-events/ |
| 1 April | 'Vision 2030' – CIHT's spring conference, Inmarsat, London
https://bit.ly/2OErc6O |
| 12-14 May | 7th Eurasphalt & Eurobitume Congress, Madrid, Spain (see page 7)
www.eecongress2020.org/ |
| 3-4 June | 54th IAT Annual Conference: '20/20 Asphalt Vision', Titanic Quarter, Belfast
www.iatconference.co.uk/ |
| 18 June | Institute of Highway Engineers (IHE) Road Safety – Engineering a Safer Solution, Bristol
https://bit.ly/2rkJ2Uy |
| 6-11 Sept | MPA/Newcastle University Asphalt and pavements course, Newcastle
https://bit.ly/2pOVbk9 |



The MPA's Malcolm Simms (right) and AECOM's Dave Beddell (second right) congratulating the prize winners

INNOVATION UNLOCKED AT HUB

■ A shortlist of 20 concepts across five categories reached the 'live' pitching rounds in this year's **Civils and Materials Innovation Hub** challenge at **Highways UK**.

The competition, supported by the Mineral Products Association (MPA) aims to unlock innovative civil engineering infrastructure products, systems, materials or processes that will provide a clear benefit to the highways sector.

The five categories and their winners were:

- **Road Pavements from Surface Course to Sub Grade: BOMAG (GB)**. The company's mobile app to record soil and asphalt compaction results in real-time, saving time and fuel, reducing wear and tear and improving on-site time management;
- **Other Elements of Road Projects: Power Plane** for its surface mining machine to facilitate efficient removal of pavement quality concrete reservations;
- **Health, Safety and Well-being: Chiara Resources** with its wireless banksman

intervention safety system, which can immediately stop a machine via isolation technology

- **Asset Management and Maintenance: Saint-Gobin PAM's** fool-proof pavement ironwork frame levelling and installation system.

- **Resilience, Sustainability and Waste Reduction: GCP Technologies** for VERIFI, a series of cloud connected sensors, which, when fitted to ready-mixed concrete trucks, monitors, measures and manages the material in transit to ensure consistent quality concrete is delivered to site, while also reducing fuel use and emissions by cutting waiting and pour times.

MPA Director of Asphalt, Malcolm Simms, said: "The response to the competition was fantastic with the entries demonstrating a wide range of innovative solutions. After much discussion, the panel of industry experts also crowned GCP's VERIFI the overall winner, with special recognition for Chiara Resources' safety banksman system."

SAMI SOLUTION FOR DORSET ROAD

■ **Dorset Council** has opted for Hanson's new Tufflayer to extend the life of a section of Dorset's busiest road.

Parts of the carriageway at Blackwater Junction were suffering from the effects of reflective cracking caused by difficult ground conditions and the weight and volume of traffic.

Tufflayer, a high-performance asphalt stress absorbing membrane interlayer (SAMI) incorporating Shell Cariphalte Dense bitumen, significantly delays the effects of reflective cracking as it provides high levels of flexibility and enhanced fatigue resistance.

Laid using conventional asphalt paving equipment, it creates an impermeable layer, protecting the structure of the road from water ingress and is a cost-effective alternative to geogrids.

Over 1,000 tonnes of Tufflayer was laid by Hanson Contracting on the A338, in conjunction with the company's Durafalt surface course. The work was carried out through Dorset Highways Strategic Partnership, a 10-year collaboration between Hanson Contracting and Dorset Council.

IN BRIEF

□ **AIA Chair**, Rick Green has taken up a new role within Hanson UK as Managing Director of its Leicestershire-based asphalt and quarrying business MQP (Midland Quarry Products).

MQP consists of three quarries and 10 asphalt plants located across the Midlands. Formerly operated as a joint venture with Tarmac, Hanson wholly acquired the company in 2013 and has continued to run MQP as an independent business.

"MQP has a great heritage and reputation and I am looking forward to be involved in shaping the next phase in its development," said Rick, who continues in his role as Chair of the AIA. "It's exciting to lead a business with customer satisfaction, quality and reliability as its core values."

□ **Aggregate Industries'** parent company, LafargeHolcim, has launched its sixth global award scheme with a prize pot totalling \$2 million.

The awards aim to recognise projects that push the boundaries in balancing environmental performance, social responsibility and economic growth. Entries from the fields of architecture, engineering, urban planning, materials science and construction technology are now being sought ahead of the 25 February 2020 deadline.

For further information visit: www.lafargeholcim-awards.org

□ **Breedon has** acquired family-run firm Roadway Civil Engineering & Surfacing Ltd to extend its offering throughout North Wales, Shropshire, Cheshire and Merseyside.

Founded in 2000, Roadway is an integrated asphalt production and contract surfacing business based in Llay, near Wrexham. It specialises in local authority term maintenance, minor road maintenance schemes and associated civil engineering works.

A successful product trial instigated by **Coventry City Council** and **Tarmac** paves the way for the increased use of recycled waste tyres in asphalt.

TRIAL SEES ASPHALT DEVELOPED FROM TYRES

COVENTRY CITY COUNCIL was keen to test asphalt that provides additional environmental benefits to standard mixes and, in 2018, it approached Tarmac to run a series of trials at sites across the city.

Tarmac is one of the first companies in the UK to develop successfully a new asphalt technology capable of recycling end of life tyres (ELTs) into roads. It estimates that it will be possible to recycle and reuse up to 750 waste tyres for every kilometre of highway surfaced with the new material, depending on the thickness of the road. This would help to reduce the 120,000 tonnes of rubber waste exported from the UK annually.

The first part of the trial saw a residential road part-resurfaced using asphalt containing ELTs and part with traditional asphalt. This allowed for the performance and durability of the new material using rubber-modified 10mm SMA to be compared. A further trial, using rubber modified 6mm SMA, took place on Birmingham Road, one of the city's busiest routes. Dave Hardy, Technical Product Development and Support Manager at Tarmac, explains: "The



...we hope we can use more of the product across the city..."

Rob Little, Coventry City Council

UK generates 40 million waste tyres per year. Although the tyre recycling industry has made significant progress to establish disposal routes since the EU landfill ban was first introduced in 2006, over 10 million tyres a year are still exported to Asia and the Middle East. Rubber is



routinely used in asphalt across the USA where studies carried out by our parent company CRH indicate that rubber modified asphalt requires less maintenance interventions than standard straight run bitumen asphalts. This is due to the ability to delay crack propagation.

As well as providing the tyre industry with a new disposal route, increased specification of rubber modified asphalts in the UK could provide a typical carbon footprint saving of around eight per cent compared to traditional SMA – as it is supplied as a warm mix asphalt."

Rob Little, Senior Engineer, Highways Technical, Coventry City Council, said: "Coventry City Council is delighted with the rubberised asphalt trial; we hope we can use more of the product across the city in the future."

Councillor Pat Hetherington, Coventry City Council's Cabinet Member for City Services, added: "I am really pleased that we are able to divert materials that would otherwise go to landfill or be incinerated and reuse them effectively – we only have one planet and it's important to look after it."

UK GROUP'S 'BEST PAPER' AWARD AT CONGRESS

A UK COLLABORATIVE group has received a prestigious international Best Paper award for road design and construction at the World Road Association (PIARC) congress in Abu Dhabi in October.

The group earlier scooped the winning spot in the UK stage of the competition at a ceremony held at the Houses of Parliament, which was presented by the Roads Minister of the day, Baroness Vere.

The paper presents findings from a collaborative research project delivered by AECOM for Highways England, Mineral Products Association, and Eurobitume UK. It discusses opportunities and challenges derived from full-scale trials of automation in road construction and condition monitoring, as well as lessons learnt from selected local and national road construction schemes in England. In addition, the potential benefits that could be derived from improving safety, quality and efficiency associated with new technologies was also addressed.



Collaborative success (from left): Robin Hudson-Griffiths (Highways England), Giacomo D'Angelo (AECOM), Daru Widyatmoko (AECOM), Malcolm Simms (MPA) and Arash Khojinian (Highways England)



The need to adopt **colour demarcation for cycle lanes** is gaining traction given heightened concerns over cyclist safety.

COLOUR IS KING IN BID TO MAKE ROADS SAFER FOR CYCLISTS

LATEST FIGURES from Cycling UK show that the number of cyclists killed or seriously injured on Britain's roads has increased by 29 per cent from 2008 to 2018, with cyclists being 15 times more likely to be fatally injured on the roads compared to other road users.

Local authorities are increasingly turning to coloured asphalt to create clearly-marked cycle lanes to improve safety and provide public realm benefits. Such a move is supported by British Cycling's Policy Manager, Nick Chamberlin: "Using a contrasting colour for the asphalt on bike paths alongside the main carriageway is a simple and effective way of demarcating safe space for all road users. Cities and towns could 'own' a colour making their cycle network both effective and a statement of civic pride and difference."

The use of coloured road surfaces forms part of the planned £13.4 million upgrade for Chorlton in Salford, part of cycling guru

Chris Boardman's £1.5 billion Bee Network masterplan to create an integrated cycling and walking network in Greater Manchester. The proposals for Chorlton could see cyclists and pedestrians given priority in the city centre and the designs have been described as the most advanced in the UK.

Across the Pennines, Sheffield City Council recently installed a new cycle lane in Brown Street, an area of high traffic near the city centre, opting for 'Signal Red' asphalt, supplied by Aggregate Industries (AI), to create a lane that is easily distinguishable from the rest of the road (see cover).

AI advocates standardised colour demarcation as the way to achieve effective lane segregation and create a safe local road network.

Joanne Wilkins, Head of Business Development, Asphalt and Ready Mix Concrete, said: "Cycling UK

Coloured road surfaces are planned for Chorlton's multi-million pound upgrade

states that 1.7 million people cycle either every day or nearly every day, so having clear and coherent road markings is vital to help prevent road traffic collisions.

"We believe that joined-up planning and standardised specification should be at the heart of this strategy. Britain currently has a somewhat disjointed network of different colours and a variety of materials, which can be confusing for drivers and cyclists to navigate. In our view, a cohesive approach is needed for the construction of coloured lanes so we can build a road network that's safe for all to use."



Sheffield City Council opted for Signal Red asphalt



QUALITY IS KEY IN TRACK RESURFACING

High quality surfaces have been designed to meet the exacting demands of the motoring world:

Speedy repair solution at Goodwood

Last minute resurfacing work was carried out just two days ahead of this year's annual Goodwood Festival of Speed.

Teams from Aggregate Industries (AI) and civil engineering contractors, Tidey and Webb Ltd, worked around the clock to repair parts of The Arena – the festival's dedicated course for drifting vehicles.

AI's Supreme asphalt was chosen to provide a highly compactable, strong surface with 20 tonnes of the 10mm asphalt used to

resurface a patch on the track ahead of the event. Dan Garlick, Goodwood Festival of Speed General Manager, said: "All of the repair work was completed within the time window. We're delighted with the performance, which allowed us to support a heavy programme of cars drifting in hot conditions."

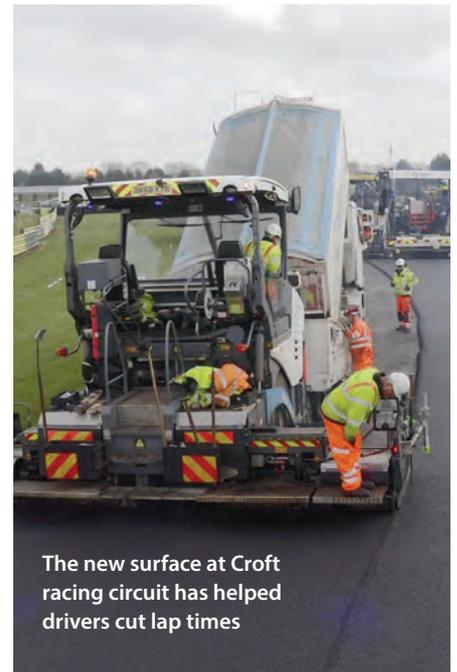
Specialist bitumen used at Croft

Croft racing circuit in North Yorkshire has been resurfaced by Tarmac – 55 years after it was involved in the construction of the original track. The 2.1-mile course regularly holds international motorsports events, including the televised rounds of The British Superbike Championships and the British Touring Car Championships.

Experts from Tarmac and Total Bitumen developed a new material for the project – UltiTrack Racing – using Total's Styrelf GP high-performance polymer-modified binder to provide excellent levels of grip and ride quality.

Total's Styrelf has been in development for over 20 years and has already been used in many race settings, including the Monaco Grand Prix F1 street circuit, Germany's Moto GP Circuit The Sachsenring and the USA's Denver F1 circuit.

Rick Ashton Total Bitumen's Market Development Manager said: "Total Styrelf GP uses a process called cross linking which allows the bitumen to act as one stable polymer network – like an elasticated net.



The new surface at Croft racing circuit has helped drivers cut lap times

This enables the surface to relax and recover from the forces imparted. Plus, with a greater tolerance to extreme heat, Styrelf GP is able to resist both summer surface temperatures and the heat caused by the extreme friction generated in motorsport."

The new surface has been well received by race drivers and their teams – with reports of lap times tumbling by up to four seconds partly as a result of the extra smoothness and grip provided.

M25 DEBUT FOR RECLAIMED ASPHALT



A first for the M25: 50 per cent reclaimed asphalt

Asphalt containing 50 per cent reclaimed asphalt (RA) content has been laid for the first time on a section of the M25, in what could signal a step change in approach for the Strategic Road Network (SRN).

The 50 per cent RA surface course, with high Polished Stone Value (PSV) aggregate, was designed by FM Conway in collaboration with surfacing business partner Toppesfield and Skanska UK.

Over 250 tonnes was laid as a surface course, to a depth of 45mm, on a section of the anticlockwise inside lane between junctions 25 and 26

during an overnight closure in September. The use of 50 per cent recycled content on this project followed permission from Highways England to depart from its standards.

Previously, standard practice has been to limit the RA content of surface courses for motorways and A-roads on the SRN to around 10 per cent.

Mark Flint, Technical Manager at FM Conway, said: "Extensive core sampling and testing was imperative as we were looking for the correct grading of aggregate as well as the right PSV. Being able to carry out the

research and development at our Technology Centre and engineer a bespoke Polymer Modified Bitumen (PMB) at our PMB plant was beneficial to the success of the mix."

Skanska, contracted to carry out civil engineering and technology works for Connect Plus Services, the JV which operates and maintains the M25 for Highways England, was able to supply the recycled asphalt plantings (RAP) for this high RA addition project from two Connect Plus 'donor' sites undergoing remedial work.

"The future uptake of 50 per cent RA could result in huge environmental benefits if adopted across the SRN," added Mark.

TECHNOLOGY TO DOMINATE 2020 MADRID CONGRESS

PLANS ARE well developed for the 7th E&E Congress, which is being held next year in Madrid. Recognised as the flagship industry conference for the asphalt and bitumen sectors in Europe, the 2020 line-up includes keynote speakers, a full technical programme, interactive workshops, a large exhibition and poster sessions, as well as a congress dinner, all under the overarching theme *Asphalt 4.0 for Future Mobility*.

The asphalt and bitumen sectors have a vital role to play in the on-going delivery of innovative and sustainable solutions for highway maintenance and construction. How best to achieve this with the continuing shift to 'smart' roads underpins the conference's approach.

Siobhan McKelvey, Director General Eurobitume and a member of the E&E Conference organising committee, explains: "The fourth industrial revolution or 'Industry 4.0' phase that we are now in is all about connectivity and mobility. As new technologies fuse the physical and digital worlds, it's vital that stakeholders within the roads sector work together to optimise technologies so we can continue to offer viable solutions for the changes ahead. That's why it's so fitting that next year's congress has Asphalt 4.0 at its core.

"There is no doubt that future mobility scenarios being developed now will impact on our road infrastructure in the future. The traditional ways of travel will change and the use of automated and guided vehicles will have an increasing effect on road surface requirements.

"Asphalt, bitumen and other related industries need to be ready. Undoubtedly asphalt roads will remain of high importance in the future but, as the focus shifts to creating smart roads, we need to be ready to provide smart asphalt and bitumen."

With sustainability increasingly high on policy makers' agendas, technical sessions at

the E&E Congress will also look at the topic, especially in terms of durability. How best to communicate the industry's excellent track record in long-life performance and recyclability are also on the agenda, as are the attraction and retention of young professionals into the sector.

 Asphalt, bitumen and other related industries need to be ready."

Siobhan McKelvey,
Director General, Eurobitume

Over 70 peer reviewed papers will be delivered orally during the conference's 12 sessions and many more will be presented informally as posters. All 260 accepted papers will be available in the Congress proceedings.

"It's exciting to think that Madrid's delegates will have a unique opportunity to steer common approaches to a broad range of future challenges," added Siobhan.



7th E&E CONGRESS
EURASPHALT & EUROBITUME

MADRID 12-14 May 2020
Palacio Municipal de Congresos de Madrid

ASPHALT 4.0 FOR FUTURE MOBILITY

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Signing up to the 7th E&E Congress 12-14 May 2020

Online registration is now open at
www.eecongress2020.org

Delegates signing up before 9th March 2020 will be eligible for an 'early bird' discount, saving €200.

WELCOME FOR DfT'S COMMITMENT TO LONG TERM FUNDING

 We welcome the commitment from the Department to work across government..."

Lilian Greenwood MP
Chair of the Transport Committee



THE TRANSPORT Select Committee (TSC) has welcomed the Department for Transport's (DfT's) new ministerial team's willingness to engage with the recommendations of its report: *Local roads funding and maintenance: filling the gap*.

The document was published in July following an extensive review, which included the receipt of evidence from the public, local authorities (LAs) and industry bodies, including the AIA.

The Government's formal response, announced in October, sets out a commitment by the DfT to press the Treasury for a longer-term settlement to tackle the condition of local roads.

The TSC's report had described the current backlog in maintenance as a 'dereliction of duty by successive governments' and called on the Government to address the situation.

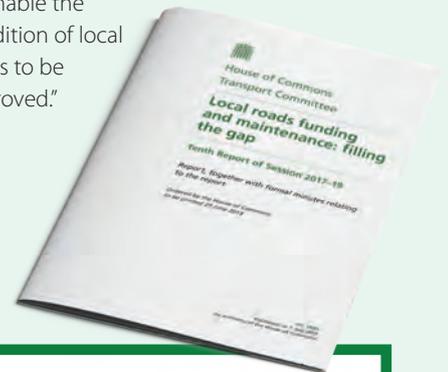
The Government's response

acknowledged that the scale of the local highway maintenance backlog 'could be as high as £9.0 to £12.0 billion' [the AIA's ALARM survey 2019 reported £9.8 billion] and that 'the DfT will work closely with HM Treasury and the Ministry for Housing, Communities and Local Government to ensure that the priorities for funding local highway maintenance are well understood, including the benefits of a longer-term settlement'.

The Chair of the Transport Committee, Lilian Greenwood MP, said: "We welcome the commitment from the Department to work across government on giving local councils the cash and long-term funding certainty they need to tackle the effects on roads of years of neglect."

AIA Chair Rick Green said: "It's a positive sign that both the TSC and now the DfT recognise the need for a long-term approach. We are continuing to campaign

for an additional £1.5 billion a year for 10 years for local road maintenance. This incremental funding should combine both a needs element and an investment element to allow local highway authorities to tackle the underlying backlog and seek to improve the network. Crucially, it's this combination of additional funding covering both *needs* and *investment* that we believe is required to enable the condition of local roads to be improved."



AIA GIVES EVIDENCE TO SCOTTISH PARLIAMENT ON ROAD MAINTENANCE

AIA Director David Giles provided evidence to the Scottish Parliament's Rural Economy and Connectivity Committee in September as part of its budget scrutiny session on road maintenance.

It followed the committee's earlier call for views on the effectiveness of the current approach to roads maintenance in Scotland and the adequacy of current expenditure levels.

Highlighting the incontrovertible link between funding and conditions, David, pictured, set out that 20+ years of Annual Local Authority Road Maintenance (ALARM) surveys 'south of the border' have helped inform the AIA's position on the need for long-term, sustained funding for local roads (see article above).

David outlined how the data collated via ALARM facilitates independently substantiated calculations on the sums needed to tackle annual budget shortfalls as well the growing backlog of repairs.

Other members of the panel providing evidence included:

Angus Carmichael (Scottish Road Works Commissioner), **Derek Halden** (Chartered Institute of Logistics and Transport), **Cara Hilton** (Civil Engineering Contractors Association), and **Neil Johnstone** (Chartered Institution of Highways and Transportation).

In addition to questions on funding levels they also responded to the Committee's queries on the need to shift to a whole life asset management approach as well as highway workers' safety, the quality of repairs and the effectiveness and recyclability of different road materials.

In response to a question on the durability of asphalt, David said: "Budget restraints mean that we now expect our roads to last 60 or 70 years before resurfacing, which is a challenge given the rise in incidents of extreme weather and the increased weight and volume of traffic. Not many materials last as long as asphalt does and, at the end of its life, it is 100 per cent recyclable."

The AIA's full response to the Scottish Parliament's Rural Economy and Connectivity Committee can be found at: <https://bit.ly/2qr3u5Y>





APPG-BACKED REPORT HIGHLIGHTS BENEFITS OF SPECIFYING WMA

The latest meeting of the All Party Parliamentary Group (APPG) on Highways led to the production of an APPG-backed report on Warm Mix Asphalt highlighting the benefits of a readily-available solution that can help cut the carbon emissions associated with road maintenance and construction.

AT THE JULY APPG session Brian Kent, Chairman of the Mineral Products Association's Asphalt Committee, set out the industry's concern that take-up of Warm Mix Asphalt (WMA) – which offers considerable environmental benefits over hot mixed asphalt – has been disappointingly low.

WMA technologies can reduce production and laying temperatures by up to 40°C below the equivalent hot mix material, resulting in lower fuel usage during asphalt production and reducing associated carbon dioxide emissions by around 15 per cent, depending on specific product and plant.

Brian highlighted the numerous benefits of WMA, including faster re-opening of roads and reduced programme durations, which can lead to on-site savings and improved air quality for workers and the wider community.

He also pointed out the industry's frustration that less than four per cent of asphalt in the UK is currently specified as Warm Mix.

This is in contrast to around 40 per cent of production in the USA and over 15 per cent in France.

Support for WMA

Parliamentarians present within the Group, which is chaired by Sir Christopher Chope OBE MP, were enthusiastic in their support for raising the profile and uptake of WMA.

The resulting report, *Working for better roads – Warm Mix Asphalt: reducing carbon emissions and improving efficiencies*, includes a foreword by Sir Christopher which sets out how specifying WMA is a simple step that local authorities can take to cut emissions, given that many have already declared climate emergencies during the year. "Everyone has a part to play in tackling



Lower fuel usage and reduced emissions are among the environmental benefits of laying Warm Mix Asphalt

environmental issues for future generations," he writes.

"This report aims to encourage those authorities which have responsibility for highways to put their support for

environmental measures into practice without delay."

More information on WMA, including the full APPG report, can be found at <https://bit.ly/349mEfe>

DfT: ROAD CONDITIONS "STABLE"

The Department for Transport's (DfT) latest *Road Conditions in England* report (October 2019) sets out that the condition of local authority (LA) managed roads have remained stable in recent years.

Overall, 74 per cent of A roads in England were categorised as 'green': roads where no further investigation or work is required to bring it up to standard, and 23 per cent were classed as 'amber': roads where work may be needed sometime soon. The remaining three per cent were classified as 'red': requiring investigation for maintenance. These figures are in line with the findings of the AIA's 2019 ALARM survey released in April. The full DfT report can be downloaded here: <https://bit.ly/33Lv9Nc>



Local authority delegates from across the country attended this year's **Sharing Best Practice** event, organised by the Asphalt Industry Alliance (AIA), to share knowledge and experience with like-minded colleagues.



'EXCELLENT' BEST PRACTICE EVENT HAILED MOST RELEVANT YET

First session: Alyn Jones on
the impact of climate change

HELD AGAIN at the National Motorcycle Museum near Birmingham, the theme for **Sharing Best Practice 2019** was *The Route to the Roads of the Future* and sessions included a busy line-up of thought-provoking speakers and topics to stimulate lively discussion.

Opening the day, conference facilitator **David Weeks** welcomed delegates and read a message from **Steve Berry**, Head Highways Maintenance (inc Funding), Innovation, Resilience, Light Rail and Cableways, UK Department for Transport:

"The Department for Transport fully supports events such as the one today by the Asphalt Industry Alliance in sharing best practice, asset management and also highlighting new initiatives such as the work

being undertaken through the Live Labs.

"Sharing best practices is vital to ensure we all can improve the performance and productivity of the work we undertake. It not only can help us understand where our knowledge gaps are but as we know, can improve efficiency, encourage leadership, and so much more. Good collaboration and sharing our experiences with each other is key and I am pleased to see today's speakers being able to share their knowledge to help other authorities.

"I hope everybody enjoys today's event and my thanks to colleagues at the Asphalt Industry Alliance for arranging."

AIA Chair **Rick Green** then gave a short update on what has been another busy year for the alliance, continuing to raise

 The Department for Transport fully supports events such as the one today by the Asphalt Industry Alliance.."

Steve Berry

UK Department for Transport

awareness of the local roads maintenance and funding issues faced by authorities in England and Wales.

The first session of the day, under the heading of *New ways of Thinking*, saw **Alyn Jones**, Operations Director at Somerset County Council, discuss the impact of a declared climate emergency on highways and transport service.

Alyn was followed by **Paul Fermer**, Assistant Director (Highways and Transport



Operations), Oxfordshire County Council, who looked at improving customer satisfaction through local devolution and volunteering.

Rounding-up the first session was Eurobitume Senior Technical Advisor **Mike Southern**, who provided a thought-provoking look at sustainability assessment within the asphalt industry.

Materials specification was the theme for the second session which began with an update from Highways England delivered by **Ramesh Sinhal**, Pavement Principal Advisor and Team Leader.

MPA Asphalt Product Committee Chairman **Brian Kent** followed with a look

“I still believe that private investment is the only way forward...”

Kevin Hicks

Birmingham City Council

at the benefits of Warm Mix Asphalt (WMA), calling for its wider use (see APPG report page 9), a sentiment echoed by **Diane Ware**, Principal Technical Officer (Highways) at Wiltshire Council.

“We started with six WMA trial sites in 2015,” said Diane. “Since then we have extended its use throughout the network so that over the last three years almost 40 per cent of all asphalt laid in the county has been warm mix. We have laid it on all types of road, day and night, all year round. It looks the same and it lays the same but gives us a range of benefits including carbon savings from local quarries and asphalt plants, fewer fumes, quicker reopening of roads and more output per shift. On the Westbury bypass, for example, using WMA took 10 days off the original 26-day programme.”

Peter Clay, Highways Strategic Asset Management Lead at Cumbria County Council concluded the session with a look at the county’s journey to date with plastic in roads.

The afternoon line-up, under the heading *Towards 2020*, began with **Kevin Hicks**, Assistant Director – Highways and Infrastructure, Birmingham City Council presenting on the future of Birmingham Highways following the termination of the council’s PFI arrangement with Amey and its search for a new service provider.

“I still believe that private investment is the only way forward,” said Kevin. “Despite reporting, the PFI has delivered a number of successes and we are looking for a new service provider to stabilise services, provide information on asset condition and deliver £50 million of resurfacing work.”

The last presentation of the day was from **Clive Bairsto**, CEO of Street Works UK, looking at delivering better street works through a collaborative approach between utility companies and local authorities.

David Weeks provided a round-up of the day before Rick Green closed the conference, thanking those attending for their ongoing support and commitment to the AIA’s Annual Local Authority Road Maintenance (ALARM)

survey. “Next year will be the 25th ALARM survey,” he said. “Steve Berry from the DfT has vocalised his backing for the report and its findings, calling for a 100 per cent response rate at a recent event. We would be thrilled if we could make this happen and I hope we can continue to rely on your support to ensure your local authority takes part.”

Commenting on the success of the Sharing Best Practice event, Rick added: “This year was the ninth time we have organised the free event and its popularity is clear from the delegate survey, with 100 per cent saying they would recommend it to a colleague.”

The presentations from the day are available to download from the AIA website: www.asphaltuk.org



Endorsement of the benefits of WMA, as set out in the APPG-backed report

What delegates said...

“Another excellent seminar by the AIA with clear views on how to approach the future of highways both in procedure and materials to meet the needs of county and country.”

“...this was by far the most relevant and interesting to date. It is always useful to listen to other authorities and industry experts... but this year the topics were all much more practical and down-to-earth.”



Bristol City Council's risk-based approach to **gully cleaning** has reduced the number of non-running gullies and provided a 65 per cent saving on related maintenance expenditure, allowing more of the highways budget to be spent on improving road conditions.



BRISTOL'S RISK-BASED APPROACH BRINGS LOWER BILL FOR GULLY CLEANING

A STEP-CHANGE approach to gully maintenance initiated by Bristol City Council (BCC), working with Intouch Ltd, has successfully reduced incidences of carriageway surface flooding and cut contaminants entering the waterways from the road network.

Savings of more than £300,000 from the revenue budget have also been delivered since the scheme's introduction in 2014, allowing funds to be redirected to maintenance elsewhere on the city's 1,127 kilometre network.

Bespoke intervention

The risk-managed approach, developed in line with *Well-managed Highways Guidance*, involved moving away from annual gully inspections to one where data analysis informed the setting of bespoke intervention levels. Previously the city's 44,641 gullies were cleaned annually, now it's down to just 3,300.

Shaun Taylor, BCC's Highway Maintenance Manager, explains: "The results speak for themselves, but we didn't get it right first time and hopefully others can learn from our experience.

"We started with a comprehensive gully survey as part of our cyclical cleanse. However, we recognised that this wasn't going to provide sufficient data to allow us to set meaningful intervention levels to achieve our aim of reducing the number of cleanse visits required.

"Crucially, we decided to redo the



Gullies with a silt level that fell within predefined criteria were scheduled for cleansing

surveying to pick up the invert levels (floor level) of gullies and silt levels in actual measurements *not* percentages as well as data on construction type and condition.

"Further visits were made over six months to provide in-depth data and included

installing sensor probes into high risk gullies to monitor the silt and water levels. Any gullies reviewed with a silt level that fell within our predefined criteria were also scheduled for cleansing."

This process highlighted a significant number of gullies did not require annual visits, while a small number needed more frequent cleaning. The data was used to develop a cleansing formula in line with BCC's risk criteria, which focuses on gullies routinely blocked as well as those identified as potentially at risk.

"Emergency callouts are down by 80 per cent and blocked, non-running gullies in the city are down from 18 per cent to under five per cent" said Shaun. "This has reduced the risk of potholes forming and benefited the city's congestion and air quality levels."

Contaminated pots

The detailed gully surveying also highlighted that silt collected from some gully pots showed high levels of a wide range of metals and hydrocarbons. Instigating effective removal and disposal of the contaminated pots has reduced emissions to surface waters, helping towards BCC's compliance with the Water Framework Directive (REF).

"As well as delivering significant revenue savings this shift to a risk-based monitoring system has also allowed us to focus capital replacement spend on the gullies that need it most," added Shaun.

 **Emergency callouts are down by 80 per cent and blocked, non-running gullies... are down from 18 per cent to under five..."**

Shaun Taylor, Bristol City Council



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