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TRADE BODY SETS INTERNATIONAL AGENDA FOR INVASIVE WEED CONTROL EVENT



A key event for a wide range of professions looking for the latest insight into invasive non-native weeds. The event 'Management, Understanding and a Look to the Future' takes place at the Möller Centre, University of Cambridge, on 23 November.

Focusing around three key themes - the management and understanding of invasive weeds, as well as a look to the future - the conference sets out to provide a comprehensive picture of the current and future issues relating to invasive weed control.

The day features a unique mix of discussion and insight from academia and different sectors including ecology, utilities and transport, as well as governmental and public bodies.

The meeting will address traditional invasive weeds such as Japanese knotweed and also investigate a new generation of non-native species which are becoming of increasing significance across the public and private sector, including aquatic plants.

It will draw on the experiences of

Leading experts from across Europe will be sharing best practice at the annual International Invasive Weed Conference, organised by the Property Care Association.

academia, including Dr Ken Thompson of the University of Sheffield, Dr Maria do Rosario Fernandes of the University of Lisbon and Dr Uwe Starfinger, Julius Kühn Institute, Germany.

Philip Santo FRICS, of Philip Santo & Co, will provide an update on legal issues from a surveying perspective, while representatives from organisations including the Environment Agency, Defra, Monsanto, CABI, South West Water and Network Rail will also take part as guest speakers and as panellists for the question and answer session.

Professor Max Wade, chairman of the PCA's Invasive Weed Control Group, said: "The impacts of invasive plants are wide-ranging, posing risks to the environment, water industry and transport infrastructure, and even public health.

"They are growing in number and the legislation surrounding their control is becoming more complicated.

"In line with their far reaching impact, the conference has been developed to provide industry-leading insight which covers a broad subject area, and is of appeal to a wide-ranging audience."

The full conference programme can be viewed at www.property-care.org/conferences/invasive-weed-conference-2017/

This online area also includes a link to a video giving a flavour of the event, filmed at last year's conference.

A further video regarding the challenges for landowners in tackling invasive weeds is also available to view at https://www.youtube.com/watch?v=YuHzVzgyV_E

EFFICIENT UNIVERSITIES MANAGE ADDITIONAL HALF A MILLION SQUARE METRES AT SAME COST AS 3 YEARS AGO

- **University sector management and maintenance costs remain stable for third year running at £2bn despite increase in operational costs and estate size**
- **UK university estate continues to be transformed to the tune of £3bn providing world-class education to 1.7m students**
- **Difficult student recruitment period ahead as the number of young people de-creases and Brexit poses international student shortage**

The University sector continues to transform its estate to meet the demands of teaching and research in a digital 24-hour learning environment but keeps its costs at a three-year low. These cost savings are made despite an extraordinarily challenging political environment, according to the Association of University Directors of Estates' (AUDE's) annual report, released on 6th October 2017.

The publication, entitled Higher Education Estates Management Report 2017 spans the academic year 2015-16, and details the evolving profile of the university estate in the UK.

The UK university estate is managing an additional 500,000m² of space as well as the comprehensive refurbishment of older buildings. Despite this increase in the size and complexity of the university estate, directors of estates have worked to keep costs down, and total property cost (revenue spending) has remained relatively level for the third year in a row at £2.04bn.

The size of the University estate is difficult to envisage, but it is approximately the size of 230,000 three bedroomed houses (CABE dwelling size survey 2010).

KEY STATS

- Estate size increases by 500,000m² from 21,400,000 to 21,900,000m² (GIA)
- Total property costs remain at £2.0bn per annum, same as previous 3 years
- Income per m² (a measure of estate utilisation) continues to rise above the rate of inflation
- Capital expenditure significant in some institutions:
- 20 institutions with the largest capital spend, spent 50% of the total HE sector spend
- 80% of the entire sector's capital was expended by 54 out of the 154 institutions
- Four institutions spend £100m each a year - Cambridge, Imperial, UCL, Edinburgh
- There has been an increase in estate utilisation of 4% between 2014/15 to 2015/16 and has risen 14% between 2013/14 to 2014/15, as universities make every metre

squared work hard to accommodate demand for world-class facilities

- The number of young people available for recruitment from the UK into universities will continue to decrease to a historic low over the next four to five years

Capital expenditure in UK university estate reached £3bn a year for the first time, with funds spent on refurbishing old buildings and also on building newer, more carbon efficient premises to decrease running costs long-term.

Despite the large expenditure figure, the experience of most universities with capital investment will be much more modest, with many directors of estates having to make difficult decisions about what they invest in. These decisions will only become more difficult, according to Mike Clark, AUDE's chair, and director of estate & facilities management at the University of Brighton.

He said: "Smaller institutions will be keeping a very close eye on their bottom line, choosing between refurbishing older buildings to cut backlog maintenance costs or creating entirely new more carbon-efficient spaces. While it's likely these decisions cause sleepless nights already, with the threat of further decreased income as a result of the Teaching Excellence Framework's sanctions, and a historic low in those available to recruit to university, more turbulent times are almost certainly ahead. For many institutions, the challenge will be to develop capital programmes to update their estate whilst student numbers remain level, or for some, even reduce."

The demographics of the UK show that the number of people available to go to university will continue to reduce for the next four to five years to a historic low, before numbers start to recover again.

Mike Clark continued: "Alongside the uncertainty of Brexit, and studying in the UK a potentially more difficult process than ever before for overseas students, diving efficiency, reducing costs, improving service and increasing the commercial income from the estate will be vital for the survival of many institutions."

A key driver for the investment is the age of the university estate: approximately one third of the estate was built between 1960 and 1979 and will be at the end of its design life soon, continuing to need substantial refurbishment or replacement and demanding continued capital investment. Overall, however, with investment over recent years, the age of the university estate is now getting younger.

According to the report, the overall figure of healthy expenditure levels may be misleading - with 20 institutions with the largest capital spend of 2015/16, spending 50% of the total capital expenditure. Similarly, 80% of the capital was expended by 54 out of

the 154 institutions, and four of the biggest institutions spent a £100m a year each on new buildings - these were the University of Cambridge, Imperial College, University College London and University of Edinburgh.

George Griffith, head of university consulting at CBRE, who was involved in authoring the report said: "Wages make up a large part of total property costs and as salary costs increase, so do over-arching operating costs. This will be greater impact for those institutions where income is not increasing at the same rate as costs, and universities will have to be very focussed on the size of their estate, ensuring they match their estate to the demands of the staff and students."

Other report highlights include:

- In terms of employment, the HE sector employs 330,000 full time equivalent members of staff. Against the UK's total employment of 31 million, this represents 1% of total employment.
- The number of students (taught and research) totals 1,710,000 full time equivalent students. If all these people were in one place it would be the 4th largest city in the UK (<http://www.citymetric.com/skylines/where-are-largest-cities-britain-1404>) after London (9.7m) Birmingham (2.4m) Manchester (1.9m and above Glasgow (1.1m))
- The cost of running the university estate amounts to over £2bn per year. The largest costs are:
 - Repairs and maintenance £701m
 - Energy costs £376m
 - Cleaning costs £244m
 - Security costs £154m
 - Management costs £304m
- The total number of HE owned and managed beds on the residential estate amounts to 261,000 beds (i.e. of the institutions' own halls of residence), with a further 110,000 which the sector leases directly from the private sector.

Sir Ian Diamond, principal and vice-chancellor of the University of Aberdeen commented on the report, saying: "The university estate is today, so much more than it has ever been. It is comprised of everything from innovative and impressive learning, teaching and research facilities, social spaces, entertainment venues, sports facilities, restaurants and cafes, theatres, libraries, hospitality and residential accommodation to space for start-up companies, enterprise space and collaboration spaces with business and companies. Universities will continue to evolve and be dynamic in the face of changing demographics, funding and political upheaval, and directors of estates will strive to provide excellence in facilities alongside world-class education." www.cbre.com

TARMAC EMPLOYEES GO BACK TO SCHOOL TO TACKLE SUSTAINABILITY

Thousands of pupils across the UK are being encouraged to come up with 'Big Ideas' as part of an award-winning sustainability and enterprise initiative for schools. The Solutions for the Planet Big Ideas programme will be extending its reach nationwide with support from its first national partner, Tarmac, the UK's leading sustainable building materials and construction solutions business.

Solutions for the Planet is a social enterprise that connects industry-leading business expertise with enquiring young minds to tackle society's most pressing environmental and economic challenges.

More than 10,000 11 to 14-year-old pupils have already benefited from the scheme, which includes sustainability workshops and mentoring from partner organisations in the construction, utility and energy sectors. Following success in Yorkshire, the West Midlands and South-East England since its launch in September 2013, Solutions for the Planet's Big Ideas programme is now being rolled out across the North of England and Scotland.



As the scheme's first national partner, Tarmac will deliver mentoring to participating Key Stage 3 pupils across the country, highlighting the importance of sustainability and raising awareness of career opportunities within the construction sector.

Dr Martyn Kenny, Sustainability Director at Tarmac, said: "We're really proud of our work with Solutions for the Planet, which has already seen Tarmac employees volunteer more than a thousand hours to support pupils in tackling real-world sustainability issues."

"The programme is a hugely enriching opportunity for both participants and our mentors, who teach new skills while benefitting from their students' fresh thinking and original approach to business challenges."

Central to the initiative is the 'Big Ideas' competition, which sees pupils work with partner businesses, which also include Arcadis, Brammer and Buck & Hickman, IGEM, Mears Group and SGN, to develop creative sustainability solutions for presentation in a national final held each July at in the Houses of Parliament.

As well as boosting students' problem-solving abilities and science, technology, engineering and maths

(STEM) knowledge, Solutions for the Planet aims to raise awareness of career opportunities available in the participating industries.

Jen Baughan, CEO, Solutions for the Planet, said: "We are delighted to be taking our partnership with Tarmac to the national level. This academic year, our national partnership with Tarmac and region partnerships will see over 4000 young people think about challenging sustainability issues and develop innovative, entrepreneurial solutions with the help of their business mentors."

"A growing body of research shows the more high-quality interactions young person has with employers decreases their chances of being classified as not in education, employment or training (NEET). Solutions for the Planet's Big Ideas programme aims to tackle the lack of interest and engagement with STEM subjects and skills in 11-14 year olds, the under-representation of marginalised groups in Higher Education and the STEM workforce and 11-14 year olds lacking key employability and life skills."

For more information about the programme including how schools and businesses can get involved, visit www.solutionsfortheplanet.co.uk.

#CLIMATEOPTIMIST: RESEARCH REVEALS MAJORITY OF PEOPLE GLOBALLY ARE OPTIMISTIC ABOUT SOLVING CLIMATE CHANGE – BUT BRITAIN TRAILS BEHIND IN THE OPTIMISM STAKES

A new survey released during Climate Week NYC finds that a majority of people globally are optimistic about our ability to address climate change, with 64 percent of global citizens believing we can address climate change if we take action now. However, only 55 percent of Britons agree that we can address climate change if we take action now – a significantly lower percentage than the rest of the globe.

People in emerging economies are especially likely to feel positive about solving climate change, with 71 percent of these respondents believing we can address it if we take action now, compared to only 59 percent in established economies. Countries with high numbers of optimists include Brazil, Chile, China, Colombia, Mexico, India, Peru and South Africa.

The survey, conducted by global market research firm Ipsos on behalf of non-profit organization The Climate Group and change agency Futerra, polled online adults aged 16-64 in 26 countries and is at the heart of a new campaign, #ClimateOptimist, launched this week to change the dominant narrative on climate change. The campaign's partners include Mars, VF Corp, Interface, Ashden and the DivestInvest movement.

Solitaire Townsend, Co-founder of Futerra, said: "Perhaps we can put this low level of belief that we can solve climate change down to Brits' so-called cultural expectation of disappointment. But whatever the reality, I believe the point is that optimism can fuel a self-fulfilling prophecy. Without it, we're sure to fail – but believing we can solve climate change is the first step to actually doing it."

On a positive note, just 3 percent of people in Britain believe that the Earth's climate is not changing, and that there is therefore no need to do anything about it.

59 percent of survey respondents in Britain said they hear much more about the negative impacts of climate change than they do about progress on reducing it.

This may be contributing to the belief that although the climate is changing, humanity can do nothing to stop it, a mindset the campaign team has dubbed 'Climate Fatalism'. 8 percent of people in Britain fall into this category, believing

that while the climate is changing, humanity can do nothing to stop it.

"Solving climate change starts with the belief that we can, so on the one hand it is thrilling to learn that Climate Optimists already far outweigh Pessimists globally," said Solitaire Townsend. "However, the dangerous levels of fatalism – and particularly the fact that Britons are statistically so much less likely to believe we can address climate change – give real cause for alarm. There are many reasons to believe we'll solve climate change, but doom, fear and guilt dominate media coverage of this issue. The #ClimateOptimist campaign is designed to change that narrative, because science shows that optimism spurs action."

The #ClimateOptimist campaign seeks to raise awareness of the solutions to climate change to shift the dominant narrative around the topic and combat fatalism about our future. The approach is grounded in decades of scientific evidence which show that optimism compels action. Specifically, #ClimateOptimist asks people to:

- **Opt in as a Climate Optimist, and share your belief that we can solve this.**
- **Take climate action in your own life, by doing things that will make you healthier and happier.**
- **And shine a light on solutions. Find out about the amazing progress already happening.**

"Those of us working on climate change every day encounter many exciting solutions that are emerging through policy, business and new technology – but the general public doesn't always hear this good news," said Helen Clarkson, CEO of The Climate Group. "This survey sends a promising signal that the world is ready to hear more about the solutions, and work together to solve climate change."

Find out more at www.ClimateOptimist.org

Other global findings from the survey reveal:

- 64 percent of global citizens believe we can address climate change if we take action now. Overall, 33 percent strongly agree this is the case, and 32 percent tend to agree. Only 11 percent

disagree that we can address climate change if we take action now.

- People are hearing more negative climate stories than stories of progress. Across the globe, 61 percent of respondents said they hear much more about the negative impacts of climate change than they do about progress on reducing it.
- Across the world climate change is seen as personally important, but people tend to underestimate how important climate change is to their fellow citizens. 81 percent say that the issue of climate change is "very" or "fairly" important to them, while 63 percent believe it is important to the average person in their country.
- Women are slightly more likely to believe that we can solve climate change if we take action now: 66 percent agreed with this statement, compared to 63 percent of men.
- China has the most optimists of any country, with 79 percent believing it is within humanity's power to reduce climate change
- Countries with higher levels of 'climate fatalism' (believing that humanity cannot reduce climate change) include Japan (32%) and Russia (24%).
- Twice as many people believe in the power of new technologies to solve climate change as believe business or regional government are leading the way. 65 percent of people agree that new technologies – for example, wind power, solar power, and electric vehicles – are showing that we can reduce climate change, but just 32 and 30 percent agree that business and regional government respectively are leading the effort.
- People in emerging economies are most positive about the role of new technology. Colombia leads the way, with 79 percent of people identifying new technologies as proof we can reduce climate change. Other optimistic countries include China, India, South Africa, Mexico, Columbia, Chile, Peru and Brazil.

www.theclimategroup.org
www.wearefuterra.com

NHS Employers launches partnership

NHS Employers is at the helm of a new campaign, to boost awareness of sustainability work and support action that brings health, financial, environmental and social benefits to the NHS, public health and social care.

The new sustainable health and care campaign will feature a variety of engagement activities including an awards programme and a national conference and exhibition. It will be delivered by NHS Employers and supported by the Sustainable Development Unit for NHS England and Public Health England (SDU).

It offers an opportunity for health and social care organisations to work together to share effective sustainable practice and behaviours, such as low pollution travel, and supporting communities with jobs and volunteering. The campaign will include an online resource centre, featuring a range of materials to support activity at a local level.

Throughout 2018, the campaign will feature activities such as:

- Sustainability Week, from Monday 25 June to Friday 29 June
- Sustainable Health and

- Care Awards with an awards ceremony in the autumn
- A Sustainable Health and Care conference and exhibition in the autumn
- Five free regional events across the year starting in the spring

The Sustainable Health and Care campaign will build on the great work already being done by the NHS and other health and care organisations over the last few years.

For example, over the last nine years, work across the health system on entrenching sustainability has saved almost £2 billion for frontline care, from areas like energy, waste and water efficiency, as well as saving more than 3.6 million tonnes of carbon emissions.

Danny Mortimer, chief executive of NHS Employers and deputy chief executive of the NHS Confederation, said: "We want the NHS to thrive for another 70 years, and in order for that to happen, sustainability is more important than ever. We will strive to make sure this partnership is a success, and that we can contribute to greener, more sustainable health and care services,

providing the excellent care that patients deserve for generations to come."

NHS Employers will partner with the SDU, working with a steering group of representatives from various health sector organisations. The initiative is backed by the Cross System Group for Sustainable Health and Care (CSG), made up of 28 national organisations across the health sector and related fields, including Public Health England, NHS England, NHS Improvement, UK Health Alliance on Climate Change and NHS Digital.

As part of the Sustainable Health and Care campaign, NHS Employers would like organisations to join its user reference group and to sign up to its sustainability and development news bulletin.

The user reference group will aim to support campaign development and help evaluate its success. Contact sustainability@nhsemployers.org to register your interest.

For more information, visit www.sustainablehealthandcare.org or www.nhsemployers.org/campaigns/sustainablehealthandcarecampaign



POLYFOAM™ XPS – the extruded polystyrene insulation manufactured by RAVATHERM UK – has received a British Board of Agrément (BBA) certificate for its inverted roof system and floor board insulation.

RAVATHERM UK's POLYFOAM™ XPS floorboard and inverted roof solutions passed a series of comprehensive and independent assessments set by the BBA, including laboratory tests, on-site evaluations and quality management inspections. The BBA certification complies with Building Regulations and the National House Building Council (NHBC) Standards, and demonstrates exceptional design considerations as well as technical and installation guidance.

With its headquarters based in Hartlepool, RAVATHERM UK's POLYFOAM™ XPS was assessed on the thermal performance, durability, condensation risk and resistance to foot traffic on its inverted roof system. The extruded polystyrene (XPS)

RAVATHERM UK's POLYFOAM™ XPS awarded BBA certificate

board is used with a water-control membrane in inverted flat roofs, as well as pedestrian-trafficked balconies and terraces with either zero pitch roofs and slopes between 1:80 and 1:6.

The BBA certificate also covers RAVATHERM UK's POLYFOAM™ XPS Floorboard Standard and Extra, which can be specified as thermal insulation on ground-bearing or suspended concrete floors in new and existing buildings. The Floorboard products can be specified for both domestic and non-domestic use and remain effective as an insulation for the life of the building.

Commenting on the certificate, managing director of RAVATHERM UK, Stuart Bell, said: "A BBA Certificate is a mark of quality and reliability of a product used in the construction industry, providing reassurance that it is fit for purpose. The Hartlepool headquarters was a recent acquisition by RAVATHERM UK in January 2017, and the plant has been manufacturing high quality, strong and reliable XPS insulation in the UK for more than 30 years. The BBA certificate showcases our continuous commitment to providing fully tested and accredited

solutions to the marketplace, and ensures POLYFOAM™ XPS not only meets but exceeds our customers' expectations."

The BBA certificate follows recently achieved International Organisation for Standardisation (ISO) certificates for RAVATHERM UK, including ISO BS EN 9001:2015 for Quality Management System, ISO BS EN 14001:2015 for Environmental Management System (EMS), ISO 50001 - Energy Management certification, and a British Standard Occupational Health and Safety Assessment Specification (OHSAS) 18001 accreditation.

RAVATHERM UK, which sits within the Ravago Building & Construction Solutions (RBCS) division, is one of five XPS manufacturing plants across Europe. This historic cornerstone of the Ravago Group has grown from a local Belgian activity in the sixties to a pan-European division dedicated to developing and distributing specialised building and construction solutions across European, Turkish and CIS markets.

For more information about RAVATHERM UK, visit www.ravatherm.co.uk

NEW RESEARCH FINDS \$243 BILLION OF WASTED SPACE IN OFFICE BUILDINGS

The findings, released by Philips Lighting during World Green Building Week, show the impact that could be made on rents across the world's offices if business owners replicated the efficient usage of space achieved in a leading green building. Deloitte accomplished a 50 per cent reduction in the space required per employee in The Edge building in Amsterdam compared to its previous premises The Chrystal Tower, through effective use of smart technology². This was achieved whilst improving employee well-being.

Philips Lighting is calling for a doubling of the renovation rate of offices in developed countries to reach 3 per cent per year, which it says will be a key factor in reducing emissions and offsetting increased global demand for energy from population growth and urbanization.

Moreover, the research highlights that in addition to reducing their carbon footprint, office tenants could see vast financial savings if their buildings were renovated in a way that uses space more effectively, particularly in buildings with a high number of empty workspaces and meeting rooms at any given time.

The Edge uses smart technology such as a connected lighting system from Philips Lighting that enables employees to personalize their lighting and temperature at their workspaces via a smartphone app, but also provides building managers with real-time data on how the office is being used to help maximize operational efficiency.

But Philips Lighting says the potential rent reduction from optimizing offices is just a small proportion of the total financial benefit to businesses, which also include lower utility bills and significant gains in the productivity of employees, the largest cost to most businesses.

"Renovating buildings to make them more energy efficient can have a huge beneficial impact on the environment, and when they are renovated properly to encompass smart technology, the additional financial impact for businesses can also be vast," explained Harry Verhaar, Head of Global Public & Government Affairs at Philips Lighting.

The JLL 3-30-300 rule of real estate³ shows that a company's typical costs per square foot per year are \$3 for utilities, \$30 for rent and \$300 for payroll, highlighting

Businesses in Europe could realize savings of up to \$243 billion in reduced rental costs alone if their office buildings were refurbished to the most efficient standards of today, according to new analysis¹ from Philips Lighting.

Region	Total area, 2017 (Square footage, billions) ⁴	Potential 'green' cost savings from reduced rent (US\$ billions) ¹
Africa	1.1	\$15.9
Asia Pacific	65.6	\$977.2
Europe	16.3	\$242.8
Latin America	1.9	\$28.5
Middle East	1.1	\$16.8
North America	14.7	\$219.7
GLOBAL	100.7	\$1,500.9

Potential cost savings from reduced rent by 'greening' office buildings

that gains in employee productivity are worth far more to a company in financial terms than rent reductions or increases in energy efficiency of the same percentage.

"Our research looks at the potential savings in rent by optimizing space," continues Verhaar, "whereas this is just scratching the surface of the financial gains that can be simultaneously made by using smart technology. This can significantly reduce bills for energy, water and air conditioning, and generate even greater financial benefits by improving the productivity of employees through enabling them to do things like find a meeting room faster or adapt the light and temperature conditions at their workstation. We are calling for a doubling of the renovation rate of buildings primarily to help mitigate the harmful effects of climate change, but at the same time take advantage of some considerable commercial benefits to businesses."

Global reductions

Globally, businesses could realize savings of up to \$1.5 trillion if offices were optimized in this way. Asia Pacific is the largest market for office space, with a total of over 65 billion square feet of office space⁴. As such, it currently has a potential \$977 billion of reduced annual rent for commercial tenants if buildings were optimized in line with best practice. This is more than the total economy of Indonesia⁵. North America has

a total of \$220 billion dollars of potential savings, and Latin America over \$28 billion-worth¹.

World Green Building Week

World Green Building Week is the flagship event of the global green building movement organized by World Green Building Council and led by its network of over 70 Green Building Councils and their 32,000 member companies. (<http://www.worldgbc.org/worldgreenbuildingweek>)

The event will promote the goal of ensuring that all buildings – both new and existing - are 'net zero' by 2050, meaning they are highly energy-efficient buildings which generate or supply the energy they need to operate from renewable sources – like solar energy - to achieve net zero carbon emissions on an annual basis.

"Achieving our net zero goals is entirely possible but in order to do so we really need to step up the rate of renovation", explained Terri Willis, CEO of World Green Building Council. "Companies looking to do a major refurbishment should be prepared to layer in energy-efficiency retrofits and implement new technologies. Office optimization also has to be part of green building strategy, from looking at how to improve the usage to space to implementing hot-desking and flexible working spaces. These things all contribute to making buildings greener while bringing many additional benefits for organisations such as reduced energy costs and health and wellbeing benefits for employees."

Philips Lighting is a member of the Corporate Advisory Board of World Green Building Council.

1 Philips Lighting analysis, applying the reduced space per employee in The Edge (footnote 2) and the average \$30 per square foot per person per year rule of thumb from JLL (footnote 3) to Navigant's dataset on the combined area of office buildings around the world (footnote 4)

2 Source: Deloitte. In the Chrystal Tower, Deloitte

used 15.3 m² per full time employee. By September 2016 in The Edge, it was utilizing just 7.6 m² per full time employee, a reduction of over 50%.

3 JLL 3-30-300 rule: <http://www.us.jll.com/united-states/en-us/services/corporates/consulting/reduce-real-estate-costs>

4 Navigant Research Global Building Stock Database

5 Source: IMF <http://www.imf.org/external/pubs/ft/weo/2017/01/weodata/weorept.aspx?sy=2015&ey=2022&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=38&pr1.y=13&c=536&s=NGDPD&grp=0&a=>

SUCCESSFUL AND SUSTAINABLE: MARKET ADVANTAGE THROUGH VISIBILITY

Cross-sector research from Schneider Electric explores how organisations are tackling the challenge of balancing sustainability with urbanisation, digitisation and industrialisation

Schneider Electric, the global specialist in energy management and automation has launched a report that reveals 87 per cent of UK organisations find themselves torn between doing the right thing for the environment and meeting the business objectives of today.

The Secret to Sustainable Success study found that while businesses understood the need to become more sustainable in the face of increasing energy demands, nine in ten UK organisations were primarily focused on short-term economic outlook with only one in ten focused on delivering transformational change.

Energy consumption is expected to increase by a factor of 1.5 in the next 40 years, and to meet climate targets CO2 emissions must be halved. 79 per cent of organisations feel confident they can overcome the challenges presented by the increased demand for energy and create a sustainable business for the future. Yet when it comes down to the practicalities of delivery, only 13 per cent feel extremely well prepared to address the rapid growth in energy demands. This dichotomy between the belief in solving the challenge and the lack of explicit confidence in the practical solutions can create intense pressure down the line if no action is taken.

Facing up to global megatrends: urbanisation, digitisation and industrialisation

When looking at how they can address these coming mega trends, 71 per cent of decision-makers believe they will need to go through a period of tougher economic times to deliver a better, more sustainable business. They also agree that their workforce's mindset around energy usage needs to fundamentally change to deliver against their sustainability objectives.

The Secret to Sustainable Success report revealed that almost half of organisations are targeting this change through innovation projects – whether it be to use less energy by finding efficiencies in operations, embracing robotics to address the skills gap or adding sensors to identify maintenance needs before they occur. The modus operandi is to 'do more with what you already have' and 'keep the existing equipment operational'.

Mike Hughes, Zone President UK & Ireland at Schneider Electric, said: "There is no getting away from the fact that organisations are operating in unprecedented times. While the benefits of sustainability are becoming more universally accepted, many still hold the belief that this comes at a cost to the business' bottom line. Yet there doesn't need to be a trade-off between sustainability and business success. In fact, quite the reverse."

Adopting digital systems and processes

Today, gaining visibility into everything a business does and uncovering the energy it no longer needs is completely achievable through adopting digital processes. This opportunity is certainly resonating with UK businesses, as 70 per cent are actively considering digitising operations moving forward. This consideration is triggered by a reduction in energy usage (89.9 per cent) and overhead costs (89.9 per cent).

Making the investment to digitise is key to turning an organisation from a reactive to a proactive state. What's clear is that when digital investments are made, a positive return is all but guaranteed. This return is already recognised by 69 per cent of decision-makers, as they expect to see a noticeable rate of return within the first 12 months. Moreover, 75 per cent believe that once disparate data sources have been consolidated they will have the capability to intelligently connect

KEY FINDINGS

- Nine in ten organisations are primarily focused on their short-term economic outlook
- 71% believe they will need to go through a period of tougher economic times to deliver a better, more sustainable business
- Almost half of organisations are targeting change through innovation projects with the modus operandi to 'do more with what you already have'
- 76% agree that placing efforts to be more environmentally, socially and economically responsible will drive innovation and provide long-term financial stability
- 57% are moving towards adopting circular economy principles, and getting more out of existing assets
- 75 per cent believe that digitising data sources will empower them to intelligently connect people, processes and data through devices and sensors in the first year

people, processes and data through devices and sensors in the first year.

Providing access to data in an intuitive format empowers employees to be active participants in real-time work streams, ensuring their ability to increase equipment life, reduce unplanned downtime and increase overall availability and operator efficiency.

"The reality is – doing the right thing – comes with immediate and long-term rewards," added Hughes. "The secret to sustainable success is visibility – as you can't measure what you can't see. The world is going through the second wave of digitisation. It means we have access to data that provides insight into how effectively our operations are run, how proactive actions can help improve reliability, safety and sustainability to drive efficiency and market advantage in the long term." <http://www.schneider-electric.co.uk/en/>

AURORA STOCKPORT BUILDS COMMUNITY SPIRIT

The council's work to transform the once derelict site at Aurora Stockport into a thriving new employment site continues and local residents and community groups are already reaping rewards. From providing students with placements to providing new facilities for local residents the work has been wide ranging.

Two community groups, Step Ahead and Stockport Community Shed, are enjoying the benefits of working together thanks to the Aurora Stockport team. The Community Shed is a group of people who enjoy DIY projects and they have been working hard to make large wooden planters for Step Ahead. Thanks to the planters, the children and young people at Step Ahead can now grow flowers, vegetables and fruit, introducing them to the world of gardening as well as promoting healthy eating.

Five new benches have been installed at Alexandra Park by Aurora Stockport contractor Seddon to provide somewhere to relax and enjoy the park for many years to come.

The Rose Walker Community Centre a popular building used by many local community groups has also benefitted from the work. Our property partners Carillion and CBRE and the main contractor Seddon worked with volunteers to install a new partition wall into the building to increase the range of meetings the centre can host and have also decorated the outside of the venue giving it a facelift.

Alongside this, local college students have enjoyed work experience with the project team onsite gaining valuable skills that will help them in their future careers and lessons have been held in local primary schools. Creating new benefits and opportunities for local people is at the heart of the investment work taking place across Stockport. As the physical landscapes change, new jobs will be created giving a huge boost to local employment and opening up new doors for residents. At the same time this transformation and growth will create many new



opportunities for local communities.

"It's great to hear about two local groups both benefiting from the work taking place at Aurora Stockport. As well as transforming the physical landscape across Stockport, our investment work has at its heart a vision of creating new jobs and opportunities for residents across our borough. This is an example of these benefits in practice," commented Councillor Kate Butler, Cabinet Member for Economy and Regeneration at Stockport Council.

NEW ESTATES AND FACILITIES SUPPLIER FRAMEWORK AIMS TO SAVE PUBLIC SECTOR MORE THAN £5 MILLION

NHS Shared Business Services (NHS SBS) launches Hard Facilities Management framework to save public sector organisations an average of 5%, whilst providing a legally-compliant route to market for a range of essential products and services.

A new estates and facilities framework that enables public sector organisations across the country to access a range of specialist services has been launched by NHS SBS. The Hard Facilities Management framework has an estimated value of around £100 million and is free to access for NHS and other public bodies.

The ready-to-use contracts, which run until 2021, allow hospitals, GP practices, schools and local authorities, as well as any other public sector organisation, to purchase some of the essential services they need to function safely and efficiently in a quick and cost-effective way.

The latest framework agreement adds to NHS SBS's comprehensive estates and facilities portfolio, providing a legally-compliant route to market for Hard Facilities Management service lines. It includes 45 different lots, covering everything from building

management systems and removal services; to fire safety equipment & training, electrical sundries and Hard FM fully managed services.

Following a robust procurement process carried out by NHS SBS, which included upfront financial checks and evaluation of quality assurance, 85 suppliers were awarded a place on the framework across the different lots.

The negotiated contracts are OJEU (Official Journal of the European Union) compliant, which means framework users can choose to make direct purchases from a listed supplier, or run mini-tenders as per their individual requirements.

Peter Akid, NHS SBS Director of Procurement, said: "The new Hard Facilities Management framework was developed to allow public sector organisations to buy essential goods and services in a way that, not only saves them time and money, but also guarantees they are fully complying with complex UK and EU procurement legislation.

"We expect around £100 million of spend to go through the framework over the next four years, which

represents a potential cost saving to the public sector of over £5 million. This is due to the fact our framework users usually expect to save a minimum of five per cent compared with purchasing directly from a supplier.

"Those organisations buying via the framework will benefit from competitive rates, fixed pricing and NHS standard terms and conditions. It also provides a level of flexibility to meet different organisations' individual needs – through the inclusion of both national and SME suppliers, as well as various options around a single, bundled or managed hard facilities service."

The launch of the new Hard Facilities Management framework means that NHS SBS now provides a complete Estates and Facilities portfolio to the public sector. The other contract frameworks that are immediately available in this area are Modular Buildings, Construction Consultancy Services and Soft Facilities Management.

In total, NHS SBS manages over 100 framework agreements that cover a huge range of products and services used by

CREATING A SAFE LEARNING ENVIRONMENT WITH ACCESS CONTROL

Creating the right level of accessibility and an efficient flow through a building for staff and children is now a key priority for those working in the education sector; however, this must be balanced with the need to provide a safe learning environment. Architects and contractors must consider the need to install access control solutions to meet this requirement in today's modern learning environment, argues David Hodgkiss, National Sales Manager of ASSA ABLOY Access Control, a UK division of ASSA ABLOY, the global leader in door opening solutions.



Security: a growing concern

Security within the education sector is a growing concern. A Freedom of Information request by the BBC revealed that of the 30,394 crimes reported in 2014, theft, burglary or robbery was the most common offence, with 13,003 incidents taking place. Meanwhile, a survey led by the Association of Teachers & Lecturers discovered that over a quarter of education staff said they had faced aggression from a student's parents or carers.

Learners have the right to a safe environment in which to be educated, while staff should be able to work without fear of being threatened or harassed. While it can be difficult to acknowledge, the fact is that schools, colleges and universities must now take precautions to protect staff and children from these types of incidents.

Securing gates and access points around the site, plus ensuring any visitors register when entering, are just two basic but effective methods of creating a safe learning environment for staff and children. But what are the latest available solutions for those seeking a more sophisticated and intelligent approach to access control, which not only protects but also enhances the learning environment?



Enhancing existing security systems

In addition to assuring the safety and security of students and staff, the education sector is also looking for solutions that help cut energy costs, reduce maintenance and can be easily integrated with existing security measures.

Common problems with traditional security systems include lost or stolen keys. It can be inconvenient, time-consuming and expensive to change these locks, and the re-issuing of keys can be considerable. There is also the risk of stolen keys being copied, which compromises security even further.

It is also not uncommon for larger education sites, such as secondary schools and universities, to leave doors unlocked for long periods of time because of the inconvenience and hassle of opening and securing the room every time it's entered. This, however, increases the possibility of opportunistic theft and malicious damage.

To meet this need, we have introduced Aperio®, an innovative, battery-operated wireless locking technology. This enables mechanical locks to be wirelessly linked to a new or existing access control system, without any need to modify the door. Meeting BS EN 179 and BS EN 1125 standards, Aperio® offers real time control, and doors can



be scheduled to unlock in line with room booking systems or classes. Once a class has finished, doors automatically lock, leaving the room secured.

The system's ability to update who is able to access a room online and in real-time is hugely advantageous to education sites, who might need to respond fast to ensure security measures are implemented quickly.

Its escape and return configuration is ideal for the education sector, allowing a door to remain unlocked for a certain amount of time after the door has been opened from the inside. Should an incident take place outside a classroom, staff and students can quickly return to the safety of this classroom.

Aperio® in action

It is estimated that a third of the UK's university population becomes a victim of crime, predominantly either theft or burglary. Owners of expensive laptops and bikes are popular targets, particularly during fresher's week, with approximately 20 per cent of theft incidents occurring in the first six weeks of the academic year.

With this in mind, the University of East Anglia (UEA) required a trusted access control solution for its new student accommodation.

Established in 1963, the university is internationally renowned, having been rated as one of the best universities for student experience in the Times Higher Education Student Experience Survey 2016, based in a campus that provides top quality academic, social and cultural facilities to more than 15,000 students. The university sought a locking system for its newest on-site residence, Crome Court, comprising of 231 en-suite rooms rented to post-graduate students. The building was specifically designed by UEA to help reduce its environmental impact, and it was important to the university that the selected access control solution would contribute to this objective.

UEA required a system that offered assured electronic locks, built to serve the unique demands of student accommodation while ensuring the occupants safety and security. A stylish and affordable component design was important, which also

fitted the environmentally advanced profile of the new accommodation.

Gallagher, ASSA ABLOY Access Control's OEM's partner, helped specify the best security solution for the university. Jason Boyce, Sales Manager at Gallagher, said: "We decided to offer Aperio® to UEA because of its outstanding reputation." Crome Court's doors are fitted with Aperio® E100 online escutcheons, with installation training provided on campus by ASSA ABLOY. Students open doors with smart cards instead of keys, with the battery-operated Aperio® locks emitting significantly fewer CO2 emissions than wired locks.

UEA staff can also control doors from a web-based interface or mobile phone. "Unlike other systems, Aperio® provides audit trails online, allowing for real-time monitoring," adds Jason. "The fact that Gallagher and Aperio® devices can operate with the same data on the card has allowed for tighter integration, which saves the customer money."

Flexibility is another key benefit to the system, with Aperio® offering the capability for additional doors to be integrated into UEA's Gallagher system whenever required.

Christine Beveridge, Head of Campus Services at UEA, said: "ASSA ABLOY Access Control have extensive experience within the education sector. We are pleased to be piloting the scheme in our



student accommodation and hope to roll out Aperio® across all residential estate."

An intelligent access control solution is one of the most effective means of balancing this need for the right level of accessibility with creating a secure learning environment. UEA is just one of the sites that has benefited from a sophisticated access control solution, with many more looking set to follow its example. When designing modern buildings and facilities for the education sector, the need to implement a reliable access control solution looks set to become a top priority.

For further information on ASSA ABLOY Access Control, please visit www.assaabloy.co.uk/accesscontrol



PREVENTION IS BETTER THAN CURE: THE FIRE DOOR PERSPECTIVE

In a fire emergency, it is a race against time to prevent flames from spreading beyond control – meaning a working fire door could be the difference between life and death, says Allegion UK Commercial Leader Pete Hancox.



It needs no mention that the tragedy at Grenfell Tower has been a sombre, sobering experience. Shock, disbelief and anger have gripped the nation in the weeks and months following the fire. There's no question it will live long as a thorny, incredibly sad memory – especially as data has since shown at least another 211 tower blocks have failed combustibility tests following testing on their exterior cladding.

Following the tragedy, the media and nation have focused on the aforementioned cladding issues, as well as a lack of sprinkler systems in Grenfell Tower and other similar tower block buildings. Other talking points have emerged around the lack of a high ladder – which did not arrive on the scene for 32 minutes for the fire brigade. As a consequence, Mayor of London Sadiq Khan ordered an urgent review of the fire brigade kit after rescue delays.

Of course, improving those factors is a necessity and, in due course, will raise fire safety standards all around. However, they are arguably response tactics, as opposed to prevention tactics, for a fire spreading out of control.

An area of fire safety that has been given little attention to, but deserves much more credit, is the fire door. What a good fire door system



can do is buy precious time. It is a prevention method and inhibits fires from getting out of control too quickly by compartmentalising the fire.

In tall and densely populated buildings especially, trapping the fire between fire doors can stop the 'chimney effect.' This is where stairways and corridors combust quickly through non-fire retardant materials, ripping through the building within a matter of minutes and thus blocking access to the vital escape routes.

Whilst a fire door won't put out a fire, we can clearly see how they would serve an important function. In Grenfell Tower's case, they could arguably have been one of the most important factors, following the revelation about the fire service's initial lack of a high ladder.

What the RRFSO States

The Regulatory Reform Fire Safety Order 2006 (or RRFSO) is the key regulation for building owners and

operators. Under the RRFSO, not only do building owners and operators have to demonstrate that safety precautions are in place, but also they are continually reviewed and monitored.

Of the responsibilities, it includes regular fire assessments, implementing clearly defined evacuation procedures and ensuring adequate signage is in place.

Above all, though, the priority requirement is that all doors are fit for purpose in the instance of fire. That means emergency doors must open in the direction of escape, and they must not be locked or fastened in such a way that they cannot be easily and immediately opened by any person who may need to use them in an emergency. Sliding and revolving doors are, therefore, not permitted as emergency exits.

The Fire Door System – Preventing the Spread

Ultimately, it is the fire door that

stops the fire from spreading. However, a fire door itself cannot work properly without its contributory parts. One intrinsic part is the door closer.

Door Closers and Linked Fire Alarms

As Approved Document B: Volume 2, which governs fire safety in dwelling houses and flats, states, all fire doors should be fitted with a self-closing device. The exceptions are fire doors to cupboards and to service ducts, which are normally kept locked shut, and fire doors within flats (although self-closing devices are still necessary on flat entrance doors).

It goes on to state that closing devices to flat entrances must be 18N in closing force – power size 3. A mechanical door closer will fulfil this requirement, but there are also electro-magnetically controlled closers available too, which would be much more user-friendly in tower blocks.

A continual problem with fire doors is that they are heavier in nature. This makes them hard to operate for some people, for example elderly, disabled or children, who lack upper body strength or mobility. Therefore the temptation is to prop open fire doors to ease movement and accessibility, but this is illegal. A propped open fire door will render it useless in the event of a fire.

Electro-magnetically controlled door closers can negate this temptation, as they will hold open doors using electro-magnets, and release them when a fire alarm is sounded. An example of this is the Briton 996 door closer.

Latchbolt Monitors

Another piece of hardware technology that can contribute to a good fire door system in multiple occupancy buildings is the latchbolt monitor.

As mentioned, fire doors are often propped open, but that is not the only thing that stops them from performing properly. If they do not close fully, i.e. latch to the door frame, then the intumescent seals around the fire door won't stop smoke and toxic chemicals from leaking through.

In a tower block, this scenario is common. Air pressure conditions are constantly changing, due to the weather, open windows, doors etc., which can prevent a fire door from latching fully. To guard against this, a latchbolt monitor can be installed to the latch, which sends a signal to a central monitoring system that alerts if any doors aren't latched fully.



Electro-mechanical Panic Bars

A recent development of the door hardware industry is the electro-mechanical panic bar – a traditional panic bar from the inside that allows access control functionality from the outside by using an electronic motor to control the latch.

While not an essential to fire door safety, they are a good addition for tower blocks due to the access control functionality they can provide. Use of pinpads, transponders and keycards instead of mechanical keys on communal entrances can allow for audit activity on those doors, and allow security managers to pinpoint doors that are being left open and at what specific times.

Signage and Resident's Fire Door Safety Checklist

All fire doors should be clearly marked, as per the RRFSO guidelines.

Again, use of fire doors will be part of daily life in a tower block. However, there can be no guarantees that they won't be misused. Clear and correct signage must be applied to make users aware that they should be kept shut.

A good practice would also be to ensure residents are clear on how to determine if a fire door is legal or not. A basic checklist and gap tester is available to all from Allegion, which will allow residents to test and report for gaps around the fire door, latching issues or otherwise etc. Making residents aware of fire door safety can allow for a more agile approach to fire safety testing.

Only as good as the sum of its parts

In a fire, time is crucial. There



needs to be time for the fire services to reach the scene of the fire, for occupants to evacuate, and if evacuation is not possible, then to move on to the next safe points of the building.

Fire-resistant doors are available that have been tested to protect against fire spreading for up to 30, 60, 90 and 120 minutes. However, if they are not working as they should be, then no matter how good the cures are to follow, the fire will have that chance of breaking out of control and causing devastating effects.

In most cases, a fire door will never be called into action for the entirety of its lifespan. However, when we need it most, we want it to work as it has been specified to do. The simple measures we have listed above will go a long way towards ensuring fire doors are respected as they should be.

For more, visit www.allegion.com.

CUTTING-EDGE TECHNOLOGY AND ACQUISITIONS TO SHAPE GLOBAL FLAME DETECTORS MARKET

Flame detectors no longer serve the sole purpose of sensing fire. Technological advancements have led to the development of flame detection systems with a wide range of advanced features such as alarm systems, activation of fire suppression system, deactivation of fuel lines, and others. Conventional smoke and heat detectors are gradually getting replaced owing to their low accuracy and slow response time. Allied Market Research has conducted an extensive analysis on the current and future market trends, drivers, restraints, and growth opportunities for potential investors and stakeholders in Flame Detectors Market. <https://www.alliedmarketresearch.com/flame-detectors-market>

Rising concerns about safety at homes and workplaces have coerced owners of major business enterprises and residential spaces to install flame detection systems. These systems find applications in sectors ranging from BFSI, Hospitality and Travel, Healthcare, Transportation & Logistics, to Manufacturing, Retail, Mining, and Oil and Gas. The latest developments in the flame detectors market include the FL4000H Multi-Special Infrared Flame Detector, flame detectors for dirty environments and smoke fires, smoke detectors for commercial buildings, a birdhouse that detects forest fires from a distance and others.

Unison of Five Global Companies to form Tyco Gas & Flame Detection Group

Tyco Gas & Flame Detection is at the forefront of the flame detectors market and supplies devices having leading edge technology, to the oil and gas industry for tankers and terminals, as well as for petrochemical plants. The company came into existence in March 2016, as a result of the acquisitions carried out over a period of three years. Scott Safety, Detcon, Gas Measurement Instruments (GMI), Oldham, and Simtronics, with a collective experience of over 150 years were merged to form the organization. Other than Scott Safety, the other four companies are a part of Tyco's Industrial Safety Technologies (IST). Sean Magee,

General Manager of Tyco Gas & Flame Detection said, "Our mission is to be the global technology leader and world-class provider of innovative and trusted gas and flame detection solutions that protect people, assets, and the environment."

The latest products by the Tyco Group include BM 25 & BM 25 Wireless area gas monitors, MultiFlame DM-TV6-T that detects smoky fires, FL4000H, and others.

Tyco Flame and Gas Detection provide high-end flame detectors

Hydrocarbon fires in dirty environments can be detected accurately using the MultiFlame DM-TV6-T, a multi-spectrum infrared flame detector that detects smoky fires using three wavelengths. The detector comes with the additional benefits of easy installation and a high level of false alarm immunity. The system, which has a Safety Integrity Level (SIL) 3 certification, can be configured according to the application, with the help of a wireless hand terminal (TLU600). The TLU600 aids in the wireless testing of the optical and output circuits. This device can be integrated directly with controllers, fire panels, and Programmable Logic Controllers (PLC).

The FL4000H flame detector provides the widest range of view with superior false alarm immunity. This detector uses a refined Neural Network Technology (NNT) system that helps to distinguish the false alarms from alarms caused due by actual flames. The detector's electronic circuitry and the integrity of its optical path can be checked using Continuous Optical Path Monitoring (COPM). The multi-spectrum infrared (MSIR) flame



detector has all the regulatory certificates including ATEX, CE Mark, SIL, CSA, CA Fire Marshall, MED, and others.

Mergers and Acquisitions to change the dynamics of the market

On April 26, 2017, 3M announced its acquisition of Scott Safety, leading manufacturer of gas and flame detection instruments along with other safety equipment, from Johnson Controls International Plc for a total value of \$2 billion. In 2016, Scott Safety generated a total revenue of approximately \$570 million. The acquisition led to the addition of respiratory-protection products, thermal-imaging devices, and other safety equipment mainly aimed at firefighters, police, military, homeland security forces, and industrial workers to the Safety Division under 3M.

Professional Fire Alarm Systems, Inc. (PFAS) was acquired by Tech Electronics on August 18, 2017. The deal inked was one of Tech Electronics' largest acquisitions with PFAS, commercial communication system provider, generating more than \$5 million every year. According to Kurt Canova, President of Tech Electronics, the acquisition aids in achieving the company's growth goals of garnering \$100 million in revenue through continuous geographic expansion, innovation, and expanded service offerings. With this deal in place, the services provided by the company will now be available in nine new locations across the United States. www.tycogfd.com

BLOOMBERG'S NEW EUROPEAN HEADQUARTERS RATED WORLD'S MOST SUSTAINABLE OFFICE BUILDING

Opening later this month in the City of London, Bloomberg's new European headquarters is the world's most sustainable office building, as designed. The building achieved an 'Outstanding' rating against the BREEAM sustainability assessment method, with a 98.5% score. This is the highest design-stage score ever achieved by any major office development.¹

Michael R. Bloomberg, founder of Bloomberg L.P. said: "We believe that environmentally-friendly practices are as good for business as they are for the planet. From day one, we set out to push the boundaries of sustainable office design - and to create a place that excites and inspires our employees. The two missions went hand-in-hand, and I hope we've set a new standard for what an office environment can be."

Compared to a typical office building², the new Bloomberg building's environmental strategies deliver a 73% saving in water consumption³ and a 35% saving in energy consumption and associated CO2 emission⁴. Innovative power, lighting, water and ventilation systems account for the majority of energy savings. Designed to utilise waste products, respond to the building's external environment and adapt to its occupancy patterns, many of these solutions are first-of-a-kind.

Norman Foster, Founder and Executive Chairman, Foster + Partners, said: "In some of our first discussions on the project, Mike Bloomberg and I arrived at a 'meeting of minds' on how the design of the new Bloomberg headquarters should incorporate the highest standards of sustainability. The project evolved from thereon into a building that is one of the most sustainable in the world. The deep plan interior spaces are naturally ventilated through a 'breathing' façade while a top lit atrium edged with a spiralling ramp at the heart of the building ensures a connected, healthy and creative environment."

Alan Yates, Technical Director of BRE Global's Sustainability Group

said: "What sets the Bloomberg building apart is its relentless focus on innovation and its holistic, integrated approach to sustainable construction and design. Projects like these are really important in giving confidence to the industry to experiment."

Innovation Highlights

- Integrated Ceiling Panels: Bespoke integrated ceiling panels combine heating, cooling, lighting and acoustic functions in an innovative petal-leaf design. The system, which incorporates 500,000 LED lights, uses 40 percent less energy than a typical fluorescent office lighting system.
- Water Conservation: Rainwater from the roof, cooling tower blow-off water, and grey water sources, like basins and showers, is captured, treated and recycled to serve vacuum flush toilets. These use net zero mains water for flushing. Overall, water conservation systems will save 25 million litres of water each year, enough to fill ten Olympic swimming pools.
- Natural Ventilation: When ambient weather conditions are temperate, the building's distinctive bronze blades can open and close, allowing the building to operate in a "breathable" natural ventilation mode. Reducing dependency on mechanical ventilation and cooling equipment significantly reduces energy consumption
- Smart Airflow: Smart CO2 sensing controls allow air to be distributed according to the approximate number of people occupying each zone of the building at any given time. The ability to dynamically adjust airflow in response to occupancy hours and patterns is expected to save 600-750 MWhr of power per annum, reducing

CO2 emissions by approximately 300 metric tonnes each year.

- Combined Heat & Power: An on-site Combined Heat and Power (CHP) generation centre supplies heat and power in a single, efficient system with reduced carbon emissions. Waste heat generated from this process is recycled for cooling and heating and, in use, is expected to save 500-750 metric tonnes of CO2 each year.

A Global Commitment

Environmental impact management has helped Bloomberg eliminate nearly 700,000 tonnes of CO2e (41% of CO2e intensity reduction) and avoid \$95 million in operating costs since 2008.

With the addition of the new London building, Bloomberg has 34 LEED or BREEAM-certified projects globally. By the end of 2017, nearly 70% of the company's 19,000 employees will occupy an environmentally certified office.

Sustainable Occupation

Bloomberg has been a zero-landfill operation in London since 2010; instead waste is recycled, composted or converted to energy. This commitment will continue at the new site, with better waste streaming to enable a greater proportion of waste products to be reused and recycled. Globally, Bloomberg currently diverts 75% of its total waste away from landfills and is targeting 90% diversion by 2020.

The new development's interiors encourage active working, with sit-to-stand work stations for all employees and a central ramp spanning six floors that encourages movement through the building on foot. Two cycle centres and a wellness centre incorporating on-site health services, multi-faith prayer rooms and a mothers' room, will also be available to all employees.

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1 BREEAM UK New Construction 2014: Offices (Fully Fitted)
2 Compliant with current Building Regulations

3 2.34 m3/person per annum compared to 8.56 m3/person per annum from regulated loads (Source: BREEAM assessment 2014)

4 13.7 kg.CO2/m2 per annum compared to 20.9 kg.CO2/m2 per annum (Source: BREEAM assessment 2014).

TECHNOLOGY OFFERS INCREASED SECURITY

Security has been an important part of estates and facilities management for many years, but we've moved well beyond a guard occasionally patrolling a building's perimeter and rattling padlocks on doors and gates, before returning to sit behind a desk for hours. And just as the threats to buildings and their occupants have diversified and increased, so too have the solutions developed to combat them. Neil Ricketts, Security & Technical Services Director, at Trigion Security looks at the systems now available.

Facilities managers have to contend with many threats to the buildings they are responsible for. Along with burglary, arson and criminal damage, there is the increased and seemingly constant threat of terrorism, using increasing unconventional methods. That's without even mentioning any accidents or emergencies that don't have criminal intent behind them.

The human touch

Manned guards still play an important part in security services, but their roles have expanded beyond simply being a visible deterrent and there are now a myriad of electronic solutions to support them and extend security, whatever the situation.

Guards now often a wide range of services, including reception and hosting, as well as back office duties and fire marshalling. Their increased skills mean that they are equipped to take on wider

duties – which offers many benefits for the client – while electronic solutions can keep them alerted if they are needed for their primary role.

Electronic security systems may seem like relatively new developments, but the earliest documented use of CCTV technology is believed to be in Germany in 1942 when it was used to monitor V2 rockets. To be fair, in those days, there was no facility for recording events and cameras and monitors could only be used for live monitoring, so things have developed considerably.

More recent developments have made a wide range of technological solutions available cost effectively. Domestic systems allow homeowners to monitor their homes from anywhere in the world via their smart phone for instance.



Controlling access

Commercial and public sector properties require more comprehensive solutions though and a vital part of keeping a building and its occupants safe is effective access control. If you can successfully determine who is let into a building, when, and what parts they are allowed into, you are a significant way to ensuring security.

This can be done by guards checking passes, but there are many technological options to provide access control. These include swipe or proximity cards and biometric access control systems.

A swipe card will be familiar to most workers these days. The user swipes their card in a reader to gain access to building, or section of a building. A proximity card is a 'contactless' version that removes the need to insert it into a reader device. They work in



the same way as contactless payment cards and are a convenient option for the user who may not always have a hand free to insert a pass in a reader.

To ensure the cards aren't used by the wrong people they can now include extra security initiatives, including barcode technology and photographic identification. This means they can be used to monitor personnel movement around a facility.

For those in higher risk environments these solutions can be supplemented or replaced by biometric solutions, such as fingerprint readers, retinal eye scanners and hand geometry readers, which all increase the level of security and make it harder for the wrong person to be in the wrong place.

Remote support

A key development in security is the ability to maintain human interaction without having to budget for a guard in every situation. Staff in remote security centres can now monitor and grant access to individuals with agreed security clearance, in accordance with established security protocols. This option is particularly useful for lone workers or the first people arriving in the morning.

Using electronic solutions and remote monitoring means manpower reductions can be made without losing expert back up. The added bonus is that savings made by reducing manned guarding levels outweigh the cost of installation.

Access control systems give employees peace of mind in and around the property as well as ensuring that out of hours' staff, visitors and contractors can be managed successfully and securely.

Improved integration

There may be times when things go wrong, even with all the best precautions in place. Alarms remain an important deterrent and system for alerting people. The advantage of having a remote access team on hand is that they can immediately see the level of danger, or if it's a false alarm, and respond accordingly ie sending a guard, calling the emergency services or simply deactivating the alarm.

Fire alarms and the like can also all be monitored remotely 24 hours a day alongside the security systems, adding value and protecting buildings from wider threats than just criminal activity.



Outside threats

Security challenges go beyond the physical these days, so it is important that your security provider can demonstrate their systems are protected from hacking. They will often be able to help you ensure your systems are protected too.

If your property needs safeguarding an effective and affordable security solution is within reach. The threats aren't going away any time soon, but the right security solutions can give you peace of mind that everything possible is being done to protect your building and its occupants. www.trigion.co.uk

ALTRO SOLUTION BRINGS LIFE TO DESIGN-LED HULL BIRTH CENTRE

A complete floors and walls solution from Altro has been used to create a relaxing, stylish and home from home environment for mums-to-be in a new birth centre at Hull Women and Children's Hospital.

The new midwife-led Fatima Allam Birth Centre has been designed to meet the needs of women who want a more natural childbirth experience. It comprises three birthing rooms, each individually designed to create a homely and relaxed feel in beautiful surroundings, while also providing a safe, hygienic environment.

The rooms feature a birthing bed, birthing pool, ensuite bathroom and additional equipment, which is cleverly concealed within hidden wall panelling.

The design vision for the Fatima Allam Birth Centre was to create an environment that looked entirely non-clinical, a home from home for mums-to-be; relaxing, calm, very contemporary in its design and a tranquil haven in which to experience this life-changing event.

Andrew Ledger, contracts manager for Apleona, which provides facilities management for the building, oversaw the new construction and was part of the team that devised the overall concept of the birth centre.

"We had a very specific idea of what we wanted the centre to look like, and how we wanted it to function," Andrew says. "As a midwife-led unit, a relaxed and homely atmosphere was essential, however a priority was of course infection control, hygiene, durability and quality."

"We specified Altro floors and walls from the start because we are using these products elsewhere in the hospital with a great deal of success. They meet all our clinical hygiene and infection control needs, while also offering a



superb range of colours and textures, which makes them ideal for creating a modern and stylish environment.

"The quality and durability of Altro is a major factor too because, as a PFI project, the long-term cost is under close scrutiny."

Professional artist and designer Adele Howitt, from Studio Eleven Gallery & Workshop in Hull, won a commission from the hospital to design the interior concept for the new birth centre. She provided various colour ways, materials, and themes, to inspire the team. The colour palette was agreed and a range of approved products to work with, including Altro floors and walls.

"Choosing the colour scheme for the birth unit was a team effort between myself, the hospital midwifery team, and Mrs Fatima Allam herself, whose husband generously donated funds towards the unit."

"Once we had decided on colours, we worked closely with Altro to look at the specific products that would meet our brief. They were very hands-on, with technical guidance and information, plenty of new ideas, and suggesting products we hadn't previously considered. They completely understood our practical and aesthetic needs."

Adele says: "This was something very different, very special. Childbirth is such a major life event and research has shown that the environment in which a woman gives birth can have a profound effect on the anxiety or fear she may experience. A hospital can be a very stressful environment at such a key time in a person's life and can lead to feelings of loss of control."

"I wanted each of the birthing rooms in the new centre to have its own individual style, personality, textures and colours, with the feel of a chic boutique hotel. But I chose an overall theme to link them, which was flowers of Egyptian mythology, one for each room — Lotus, Persea and Jasmine."

"Rather than hanging pictures on the walls, I wanted to create more profound artistic design features in the birth and shower rooms so I used Altro Whiterock Digiclad to create statement walls from floor to ceiling. This is a fantastic product for design-led projects because you can print any image or photograph onto it, and the quality is superb."

Altro Whiterock Digiclad™ is ideal for creating the right impression with a bespoke design on your wall. From a calming coastal landscape in a hospital ward to a bold company logo in a reception area, the only limit is your imagination. Altro Whiterock Digiclad is created by reproducing a photographic image or vector art on to Altro Whiterock wall sheet, with consistent, photographic quality. Hard-coat technology provides scratch-resistant properties for added surface protection, making Altro Whiterock Digiclad ideal for areas where durability is important.

Adele chose Altro Whiterock Satins™ for the shower rooms. She says "It has some wonderful shades, and the subtle, sheer texture is very stylish."

Altro Whiterock Satins is a versatile and sophisticated hygienic walls system available in a range of solid, decorative, satin shades – from soothing and healing through to bright and energetic. It provides all the impact resistance and hygiene you

would expect from Altro Whiterock, with a stain-resistant, wipe-clean surface.

Adele continues: "These walls products enabled me to create some exciting and innovative designs for each room and gave me enormous scope to create the look and feel I wanted of stylish calm, individual strength and beauty, without having to compromise."

"The Lotus room has a beach theme, with grey painted walls. Here I used Altro Whiterock Digiclad on three statement walls with a stylised image of enlarged grains of sand. In the Lotus shower room, I chose an image of a wave on one wall, and on the three remaining walls Altro Whiterock Satins in Cream."

"Persea has a forest theme, and for this room I chose a monochrome wood grain image for the Altro Whiterock Digiclad walls. In the shower room, the wall sheet depicts pebbles."

"The Jasmine suite is all about meadows. The wall sheet features beautiful pastel lilac, green and cream wild flowers, while the shower room has a lovely pale lilac called Malva for the Whiterock Satins walls, and an image of shifting grey sand."

"I also designed some panels for the doors in the centre using Altro Whiterock Digiclad, which matched the corridor wallpaper of Lotus, Persea and Jasmine flower heads on a pale blue background."

Flooring for the birth centre was key to creating the homely, non-clinical feel. Andrew Ledger and the project team wanted natural, warm, wood-effect flooring and chose Altro Wood™ for the three bedrooms and corridors.

Andrew and his team also specified a way-finding system for the new centre to help those with partial sight and dementia. The system comprises a border of Altro Walkway™ 20 safety flooring in black fitted around the edge of all the floors in the bedrooms and corridors.

Andrew says: "This system is very effective and it also helps to limit damage from trolleys and medical equipment because it encourages people away from the walls. We are rolling it out for all our new builds."

"Wet areas in clinical environments need to be very safe underfoot, so we chose Altro Pisces safety flooring for both the shower rooms and around the birthing pool. This flooring performs superbly in both wet or dry conditions, and with bare feet or shoes, so it's perfect for keeping both patients and staff safe. Altro Pisces also looks good enough to work within our design themes and there are some great colours."

Altro Pisces™ performs whether wet or dry, in shoes or barefoot, and offers 16

soft-look shades. The result is the consistent, soft appearance that you would want from domestic interiors, with the lifetime sustained slip resistance you expect from Altro safety flooring.

The flooring was installed in the Fatima Allam Birth Centre by Floorcovers UK. Partner Phil Morris said: "We have installed a great deal of Altro flooring in the hospital over the years, so we were delighted that it was specified for this new birth unit. For quality and reliability Altro is the best, and they are a pleasure to work with."

"The installation was quite a challenge because we were working in a very delicate and sensitive area right next to the live maternity ward and neonatal intensive care unit. We had to carry all our materials through the ward where babies were being born every day during our four-week working schedule."

"This meant we had to be incredibly mindful of what was going on around us, take all dust and rubbish out in sealed containers, and work as quietly and professionally as possible to minimise the impact on mothers and babies. It was a wonderful experience, though, to hear babies being born every day."

The Altro wall sheet was fitted by Richardson Claddings. Owner Joe Richardson comments: "The majority of work we do is in healthcare and we install a lot of Altro Whiterock, so we are accustomed to working in sensitive clinical areas, and in this hospital too."

"The beauty of the Altro walls system is that it is so quiet, easy and clean to install. Altro sends the sheets to us ready-cut, which means minimal cutting or shaping on site."

"So we were able to work very quickly and quietly around the live ward. All the on-site trades worked closely with the hospital and we had a very tight and closely monitored works programme. The hospital staff were very helpful and understood all our challenges."

The project's main contractor was CTS Shopfitting Ltd. Account manager Adrian Cartwright said: "This was a very exciting design-led project, which required a great deal of co-operation from everyone. The sensitive nature of the build, plus the proximity of the works to the wards meant it was essential to work as quietly, cleanly and quickly as possible to cause minimal disruption. A very successful result and a fantastic facility."



Andrew Ledger says: "The new centre has been a huge success. From a design point of view, it looks fantastic and completely meets the brief we set out. The compliments and feedback we have received from everyone who has been here have been tremendous."

"We get a lot of medical professionals visiting from around the world and they say the centre is the best of its kind they have seen anywhere, which is a wonderful endorsement and makes us very proud of what we have achieved."

"Most importantly, the mothers who have given birth here are thrilled with it too, and we have received thousands of positive comments. There really isn't a more beautiful or peaceful place to give birth. For the midwives, it's a dream come true; a relaxed and comfortable atmosphere they love to work in, where they can control the environment and provide a very special level of care."

"The Altro floors and walls solution is key to the overall look, form and function of the birth unit. It looks superb and very striking. Adele has used the products very effectively to create schemes and designs that are both subtle and powerful."

"From a more practical angle, the Altro wall sheet provides a tough, hardwearing surface. We are very impressed that in the shower rooms the walling overlaps the flooring to prevent water ingress, which would prove very expensive to rectify. After each birth, the rooms are completely disinfected and cleaned, and the Altro floors and walls are proving very easy to maintain."

"We are delighted with this amazing facility. It's very much a team effort, everyone from the clinical team to the suppliers, designer and installers understood what we wanted to create and worked together to bring the vision to life." www.altro.co.uk



TORMAX OPENS DOORS TO LEARNING

Working with BSL Interiors of Glasgow, TORMAX was contracted to install an automatic entrance to the Robertson Trust Library and Learning Resource Centre at University of the West of Scotland's Paisley Campus. Creating an impressive frontage to this important building, a Classic 5251 TORMAX 3-wing revolving door is powered by a precision engineered motor designed at the TORMAX HQ in Switzerland, ensuring reliability and longevity of the system.

"This is a sustainable access solution," comments Simon Roberts, MD for TORMAX. "It has been shown that a revolving door powered by a low-energy operator is one of the most effective ways of minimising heat-loss from a building whilst providing clear and easy access for all users, even

at the busiest times of the day."

"The University's Paisley Campus has been significantly developed over the last decade and UWS was recently shortlisted in the 'Most Improved Student Experience' category of the Times Higher Education Awards 2015," comments Jim Timlin, Project Support Officer at the University. "The new revolving entrance to the Library is energy efficient and crucially is large enough to keep the flow of foot traffic moving."

The TORMAX Classic 5251 revolving door is constructed for durability with 56mm of aluminium edging the profiles. Driven by a technologically advanced high-torque operator, ongoing performance and minimum maintenance is assured, even under heavy daily wear and tear. Whisper-quiet operation combines with user-friendly programmes to allow settings to be adapted to

minimise energy consumption.

The revolving entrance is fully compliant with current DDA regulations, with advanced sensors adapting rotation speed to match that of users. An existing automatic swing door is located alongside the TORMAX revolving door, offering disabled users alternative access as well as flexibility for larger deliveries.

Opened in 1998, the £6.8 million Robertson Trust Library and Learning Resource Centre on Paisley Campus houses close to 200,000 volumes, reference journals and comprehensive electronic study materials. The library also has 950 reader spaces, an IT lab with interactive video players for language materials and a new flexible learning zone with group and individual work areas, coffee bar, internet access and social space. Tel: 01932 238040 Email: sales@tormax.co.uk www.tormax.co.uk

DOING BATTLE WITH BACTERIA IN BRITAIN'S HEALTHCARE WASHROOMS

Hospital environments' washrooms can prove to be especially virulent breeding grounds for bacteria, which is why taking a stringent approach to product purchase and maintenance is key. Here, British manufacturer Armitage Shanks, outlines the steps healthcare institutions can take to battle bacteria and ward off the spread of infection in washrooms, as well as discussing why this is so important when it comes to effective water management.

HAIs and healthcare washrooms

"The International Scientific Forum on Home Hygiene (IFH) confirms that areas featuring sanitaryware are bacterial and viral breeding grounds. Likewise, a House of Commons report on 'Reducing Healthcare Associated Infection (HAI) in Hospitals in England', found that annually 300,000 people contract a HAI after a hospital visit, generating an additional care cost for the NHS of £1 billion. It also advises that appropriate sanitary precautions can actively prevent the spreading of dangerous germs.

"Another study by the International Journal of Hygiene and Environmental Health concluded that the role of waterborne transmission of some Pseudomonas in ICU units cannot be overlooked. The journal also suggests that both holistic and environmental factors are important in reducing transmission. The Journal of Hospital Infection backed these findings by suggesting that intrinsic, holistic, and engineering factors should be examined by healthcare institutions in order to reduce the risk of waterborne transmission.

"Considering the role of disposal of waste water, the installation of new tap outlets that are redesigned either to prevent contamination or enable decontamination, the cleaning of taps appropriately, and the frequency of water sampling to identify outbreaks were among the preventative steps suggested by the journal.

"It's clear that the need to effectively manage water – and the products which handle how it is provided – couldn't be more important in healthcare environments. Taking necessary precautions and making effective product choices helps to protect patient health and can make a measured difference in

the number of cases of HAIs. While rare here in the UK, failure to do so can cause as negative an effect as patient fatalities.

Using products to battle bacteria

"There are many different types of fittings and ceramics utilized in hospitals, however, all products do tend to fall into one of three categories, comprising, non-patient areas, patient areas and augmented care patient areas.

"Hospitals have access to comprehensive guidelines to help identify the category each space falls into and as to how different products could help to battle bacteria. This guidance focus on the selecting products that aim to improve water hygiene, minimize the risk of harmful bacteria via intelligent design and simply the installation and commissioning of water supply systems.

"Effective infection control is an ongoing and ever-changing process of many components for any healthcare provider and smart product design forms only one element of this chain. It can however when paired with a stringent cleaning regime and regular sampling be especially effective, although this is of course dependent on the localized conditions faced by the institution.

Implementing foolproof cleaning regimes and removing parts for cleaning and maintenance

"As mentioned, stringent cleaning regimes also form an important part of any water management approach in a healthcare washroom. The UK healthcare sector is leading the way in increasing education around effectively instigating processes to ensure that maintenance work enhances the steps taken to battle bacteria, rather than impeding it.

"The need to remove parts for cleaning and maintenance is of paramount importance to those managing a hospital's cleaning regime, so ensure the products selected for the washroom have this capability. It should be a prerogative of the hospital's Water Safety Group to determine how often this dismantling needs to take place and to make sure that easy sterilization in whichever way suits the localized condition of the hospital best is also possible.



Latest product innovations from Armitage Shanks

"Armitage Shanks has a long history of providing innovation driven products to healthcare establishments. This year, we have launched two new ranges to provide optimum hygiene and infection control within hospitals; fittings collection Markwik 21+ and clinical ceramics range Contour 21+.

"Effectively managing all aspects of a washroom – from product selection, through to installation, use and maintenance – is of vital importance when it comes to taking steps to reduce the spread of bacteria in hospitals. By investigating the USPS of the products available and pairing these with the needs of their staff and patients, healthcare providers can make positive steps to helping to reduce the potential spread of HPIs."

To find out more about Armitage Shanks and its new collections of healthcare products, Markwik 21+ and Contour 21+, please visit: www.idealspec.co.uk.

INDOOR AIR QUALITY: THE IMPORTANCE OF ACHIEVING TOP MARKS

It is well known that outdoor air pollution has an impact on health, but indoor air pollution can also have significant and harmful effects. Good indoor air quality (IAQ) plays a major role in establishing a favourable learning environment, as well as protecting the health and supporting the productivity for both students and staff. Alan Macklin, Group Technical Director at Elta Group discusses the importance of good indoor air quality in educational buildings.

The rise of air pollutants

Over the past 40-50 years, indoor air pollution has increased due to a variety of factors, including the construction of tightly sealed buildings, the reduction of ventilation rates to save energy, the use of synthetic building materials and furnishings, and the use of chemically formulated personal products such as pesticides and cleaning supplies. Schools and colleges, alongside other educational buildings are now at increased risk of indoor air quality issues, particularly if they are in poor condition. Leaking roofs and crumbling walls can cause additional issues including contamination from lead, asbestos or dust.

Despite school staff and students spending a considerable amount of time in the



confines of their buildings, a particular unknown fact is that for many, the impact of indoor pollutants can be considerably higher than those outdoors.

Achieving good indoor air quality

Thermal comfort concerns will closely be linked to 'poor air quality' complaints, so it is important that temperature and humidity levels are not overlooked. Both of these are among the many factors that affect indoor contaminants.

According to Building Bulletin 101 (BB101), it is at a thousand parts per million that CO2 levels begin to make concentration levels drop. Similarly, temperature can also be



detrimental to concentration, with people generally becoming drowsier as their core temperature starts growing warmer. Both factors therefore need to be managed effectively by a well-planned and appropriately designed ventilation system.

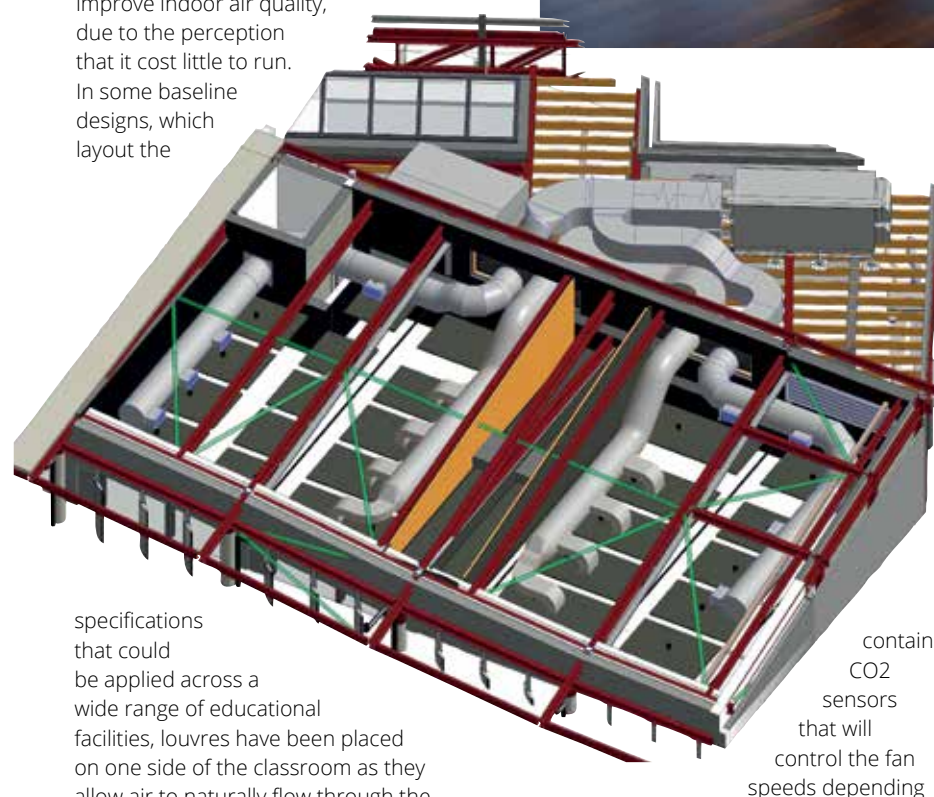
The consequences

Failure to respond punctually to indoor air quality problems can lead to

severe consequences. There may also be long and short-term health implications for students and staff, including coughs, headaches and allergic reactions, as well as irritation of the eyes, nose, throat and skin. More importantly in an educational setting, poor IAQ frequently leads to fatigue and lack of concentration, as outlined in study by the University of Reading in 2008 which demonstrated that the attention span of school children is significantly slower when the level of CO2 in classrooms is high.

Natural ventilation

In existing buildings there is a trend towards using natural ventilation to improve indoor air quality, due to the perception that it cost little to run. In some baseline designs, which layout the



specifications that could be applied across a wide range of educational facilities, louvers have been placed on one side of the classroom as they allow air to naturally flow through the corridors and up through an atrium.

However, the main problem with natural ventilation is that it is very dependent on the weather. For example, a building using natural ventilation in the winter is purposely allowing cold air into it, putting extra pressure on the heating system, which is likely to result in inflated energy bills. Not only that, but with outdoor air quality often hampered by factors such as transportation and grounds maintenance, this can begin to affect the quality of the air within the building.

Best practice

When weather conditions are not conducive to natural ventilation, mechanical ventilation becomes a much more reliable option. One benefit of mechanical ventilation is that it will



buildings speaks volumes, both in terms of health benefits and academic performance.

For more information on Elta Group Building Services, and its full range of high-quality air movement solutions, visit www.egbuildingservices.co.uk.



on the ventilation required – helping make the comfort levels within the building much easier to manage.

For those keen to go the extra mile in enhancing energy efficiency, there is a growing trend to install a heat recovery unit for each individual classroom. Put simply, a Single Room Heat Recovery Ventilator acts as both an extractor fan and a supply fan, so blows air into the room and sucks air out of it simultaneously, passing the extracted air over a heat exchanger which then transfers this energy to warm the incoming air. This ventilation method saves a lot of the heating energy especially in the winter and therefore, helps to reduce bills.

Although mechanical ventilation is not mandatory, the importance of having good indoor air quality in educational

ABM CRITICAL SOLUTIONS COMPLETES EMERGENCY CLEAN FOR LONDON COLLEGE

Specialist data centre healthcare business, ABM Critical Solutions, has completed an emergency clean of a South London college's facility within a matter of hours of being called, thus preventing any damaging outages or potential loss of data.

The team was called after a gas suppression system was activated in the server room and unloaded gas and debris onto the IT equipment; a portable fire extinguisher was also accidentally deployed adding further contaminants on to the live equipment.

After receiving the initial emergency call at midday, a senior operations manager was onsite within two hours. The manager completed a detailed survey of the room and equipment and put a full emergency delivery plan together with the client. A team of highly-trained specialist technicians were deployed and onsite within five hours of the original call to begin the clean-up.

IT racks were micro-vacuumed and anti-statically wiped internally and externally; internals of the IT equipment were meticulously micro-vacuumed and cleaned; the room interior was cleaned



to ISO14644-1 Class 8 Standards; and an indoor air quality test was completed.

Technicians worked throughout the night to restore the room to its original state as the college couldn't afford any additional downtime with staff and students dependent on the systems to complete work the following day.

Mike Meyer, Sales Director at ABM Critical Solutions says that thanks to the quick response of his team there was a very low mean time to recovery (MTTR): "None of the IT equipment

experienced any long-term damage thanks to our quick response and thorough clean to remove all the abrasive fire suppression materials," he explains.

"This situation underlines the critical importance of understanding the proper fire safety equipment that should be specified within any data facility," he adds. "Should an emergency situation such as this occur, calling in an expert like ABM as quickly as possible can prevent an accident becoming a much more serious incident."

www.abm.co.uk/critical-solutions/

BENEFITS OF CONTROLLING HUMIDITY LEVELS WITHIN THE WORKPLACE

BSRIA says it is well documented that humidity plays an important role in assuring the wellbeing of building occupants. In the U.K. we spend over 80 per cent of our time indoors and with approximately 90 per cent of the associated costs of a building being staff related, providing good indoor environmental quality is essential.

The recommended levels of humidity vary depending on the application (offices, data centres, hospitals). In some industrial applications (heritage, storage), moisture stability is essential for preservation. In offices, the generally accepted levels of humidity may range between 40 and 60 per cent.

As a standalone parameter, humidity is unlikely to cause thermal discomfort

and levels outside the 40-60 per cent range can easily be tolerated. A 10 per cent increase in relative humidity is felt to be as warm as a 0.3°C rise in the operative temperature. Human perception of dry air is generally due to contaminated or too warm air rather than physical dryness and air with high humidity is often perceived as odorous.

Blanca Beato-Arribas, Asset Performance Team Leader, BSRIA, said:

"Humidity extremes are undesirable and affect human comfort, productivity and health. Long periods of exposure to humidity levels under 35 per cent should be avoided as they can cause eye irritation, throat and nose dryness. This is a common occurrence in aircraft, where humidity levels can be as low as

20 per cent. Low humidity levels can also increase static electricity, which is a bigger cause of concern in data centres, where equipment can be damaged or in places where there might be risk of gases igniting.

At the other end of the spectrum, high levels of humidity encourage bacteriological and mould growth and increase the chemical and sensory emission from water borne building varnish and paint, contributing to poor indoor air quality.

In summary, controlling the humidity levels and regular maintenance of the systems in an office building will avoid future costly problems related to mould growth and also contribute to the wellbeing and productivity of the occupants." www.bsria.co.uk

SMART CITIES: VEHICLE ROUTING AND ITS CONTRIBUTION TO A 'SMART' ENVIRONMENT WITH THE HELP OF ASSET FINANCE

Chris Wilkinson,
Head of Sales for
Healthcare and
Public Sector for
Siemens Financial
Services in the UK



Several UK cities are looking to initiate smart projects and developments to improve the efficiency of local services, enhance sustainability and develop their competitiveness¹.

Smart city initiatives improve the 'livability' of a city, helping to attract business and talent to support economic and business growth.

A number of cities are now approaching smart transformation through a series of smaller smart projects that help to generate savings and effectively pay for the initial investment. These projects, costing a few thousand to a few million pounds, can offer highly dependable Return on Investment (ROI), helping to ease the continued pressure on public budgets.

An example of one such 'smart' project is the introduction of vehicle routing, which aims to improve the management and flow of fleets of vehicles delivering public services such as waste collection and school transport across our cities. Geographical Information Systems (GIS), which can help to optimise the routing of services, are being installed across the globe so that better services can be delivered with fewer assets (vehicles, people and equipment). The investment cost for such routing systems can be rapidly recouped when compared to the savings gained.²

For example, smart waste collection routes are planned to be more efficient so that local councils can look to reduce carbon emissions and save time and money. At South Staffordshire Council, the integration of GIS and route optimisation software has enabled the waste management service at the Council to save £380,000 per annum and achieve 94% resident satisfaction with waste collection services.³

Similarly, a requirement for a modern, efficient social transport fleet (transporting children with additional support needs,

adults with learning disabilities and day care service users) has seen Glasgow City Council introduce smart phone devices for use by fleet drivers to improve routing, scheduling and vehicle tracking. Service improvements, increased fleet utilisation and a reduction in carbon footprint are just a few of the anticipated objectives of this Future City Glasgow project.⁴

Despite the obvious benefits of such projects, public sector budgets are often insufficient to implement the technology in the first place. Local councils are estimated to face an overall funding gap of £5.8 billion by 2020⁵ and authorities are therefore looking to other forms of finance to help them invest in new equipment including technology to enable smart vehicle routing. The reality is that cities need to access a blend of public and private sector finance to accelerate their smart initiatives in a timely way and benefit from the resulting savings, efficiency, quality and citizen service improvements as quickly as possible. A diverse range of funding sources allows a city to make the full range of desired technology investments – using a combination of public and private sector finance – in a timely fashion. Different financiers can be sourced for the different types of technology investment. The sooner the smart investments are implemented, the quicker the savings (or revenues, or inward investments) begin to accrue.

A recent report from Siemens Financial Services (SFS), SmartStart (2016), identifies a number of potential Smart City initiatives – including vehicle routing – that can be financed by using funds from the private sector and have the potential to generate savings that effectively pay for the investment. The report estimates that as

much as € 6.21 billion (£5.28 billion) could be available in funding from the private sector in the UK for these small-scale initiatives. Many of these projects effectively unlock more finance availability for cities from financiers that intimately understand how such smart city technology applications work and the benefits they produce.

Tailored, all-encompassing financing packages tend to be offered by specialist financiers who have an in-depth understanding of energy-efficient technology and its applications. Specialist finance providers understand the importance of implementing new equipment and new technology to generate revenue and cut operational expenses, and can therefore provide customised financing solutions that deliver energy savings and lower expenses, for instance, flexing the financing period to suit cash flow. This contrasts with the standard financing terms usually available from generalist financiers.

Vehicle routing is just one example of a small-scale smart city development. It can help to reduce councils' cost of delivering certain services, by reducing fleet vehicle journey times and delivering an improved service with fewer assets. Specialist funding can help to make this technology more rapidly available in cities. Because private funding providers combine technological and financial expertise with a focus on innovative and customised financing solutions, specialist private financing will be the key to accelerating the trend towards SmartCity transformation. Cities require access to a wide range of financing methods, and private and public funding can complement each other as facilitators for a smarter future.

1 For example: Bristol, http://www-file.huawei.com/~media/CORPORATE/PDF/News/Huawei_Smart_Cities_Report_FINAL.pdf?la=en

2 Siemens Financial Services, SmartStart, Summer 2016

3 Geoplace Exemplar Awards, South Staffordshire Council, <https://www.geoplace.co.uk/documents/10181/138013/2013%20ehs%20Citizen%20Award%20slides>

4 Future City, Glasgow City Council, Social Transport,

<http://futurecity.glasgow.gov.uk/social-transport/>
5 Local Government Association, LGA responds to Local Government Finance Settlement, 15 December 2016, http://www.local.gov.uk/web/guest/media-releases/-/journal_content/56/10180/8106439/NEWS

ARE CONSUMERS' OPINIONS OF HYBRID VEHICLES CHANGING?

2017 marks the first time that there are over 100,000 electric and plug-in vehicles on the roads in the UK. Of this number, plug-in hybrids have seen a drastic surge in popularity and have taken a major share of the market.

From accounting for less than a third of plug-in sales at the beginning of 2014, hybrids now represent almost two thirds (64 per cent) of the overall number of plug-in cars sold in Q1 2017.

But compared to the 2.69 million new cars registered in 2016, it's easy to see that the number of hybrids only represents a small percentage of the vehicle types on the road. Although there has been a significant increase in hybrid uptake, and there will continue to be in the coming years, comparatively, it remains a relatively small bracket.

What is a hybrid vehicle?

Hybrid vehicles rely on two different power sources. There are three main types of hybrids: full hybrids, mild hybrids, and plug-in hybrids.

Conventional hybrid vehicles combine a conventional internal combustion engine system with an electric propulsion system. This combines the benefits of low emission and high fuel economy in one car.

Plug-in hybrids, as the name implies, can be plugged into an electric outlet to recharge their batteries, as well as being charged on the move. Although they have a conventional engine, they carry larger batteries than regular hybrids and as a result are able to drive for longer distances solely on electric power.

Many see the hybrid as the stepping stone between the petrol and electric. They provide the benefits of both and give drivers a taste of what to expect when owning an electric vehicle.

Making the switch

With benefits of switching to a hybrid vehicle including lower CO2 emissions, better fuel economy and lower running costs, why could it be that road users aren't flooding to car showrooms to exchange their petrol or diesel vehicles?

A lot has changed technologically



since the first hybrid was launched in the UK in the early 2000s, but it seems that the majority of the UK population remains sceptical and has misconceptions about hybrid vehicles. Despite this, hybrid and electric vehicles suit many people's lifestyles and driving habits more so than the petrol or diesel-powered vehicles that they continue to use.

A survey of 2,000 motorists by Go Ultra Low, found that almost half drive no more than 15 miles a day and 98 per cent travel less than 100 miles daily – within the range of electric vehicles and plug-in hybrids. Motorists were also found to progressively seek low running costs and are twice as likely to rate fuel efficiency as their main concern when purchasing a car.

Plug-in charging

Although a driver may be suited to hybrid and electric driving, there remains some concerns about making the switch. One of the main areas of concern is charging the car. It's a fact: people don't like change. Road users have grown accustomed to going to the petrol station, filling up and getting out on the road again. It's the easy option that we already know and have been doing since we passed our driving tests.

In truth, filling up an electric or hybrid vehicle need not be any more difficult than this. There has been major investment into the number of charging points across the country and the times associated with charging plug-

ins has also decreased drastically.

Finding public charge points has long formed a barrier to progress in uptake of electric and hybrid vehicles. Many are unaware of just how many charge points there now are in the UK and how many are being built every year. To put it into perspective, in 2011 there were around 1,500 public charging points in the UK, but as of August 2017 there are over 13,000. This figure makes the UK the largest network in Europe and it doesn't even include private connectors at homes and workplaces.

There are only going to be more charging points popping up in the coming years, too. In the Queen's 2017 speech, she proclaimed her support of increasing hybrid and electric usage by announcing that petrol stations and motorway services will be required under law to install electric charge points in the near future.

The numbers are growing in cities and towns across the country but in the capital specifically, Transport for London is investing £18m to rollout 300 additional rapid charging points in and around the city to deal with the Ultra-Low Emission Zone that will be introduced in London from September 2020.

The volume of charging points in the country comes as a surprise to many as they don't appreciate just how many there are in their local area, which they potentially drive past every day. Those interested in seeing how many charging points there are close



to them can open ZapMap, a map of charging points in the UK, to see.

Pros and cons of hybrid cars

After hearing just how easy it is to charge plug-in hybrids, are you ready to make the switch to a hybrid vehicle? Here are some of the other pros and cons associated with hybrid vehicles.

Pros

- **Green credentials.** If the majority of the nation drove hybrid vehicles, it would significantly reduce CO2 emissions. In general, hybrid cars produce 25 to 35% less in CO2 emissions than regular cars, meaning they are much more energy efficient. Whilst they still use some fuel, it is far less than a normal vehicle.
- **Energy efficiency.** Hybrids utilise the battery powered engine when driving at lower speeds meaning that very little or no fuel is needed in these scenarios. Hybrids are therefore a popular choice for city drivers.
- **Financial benefits.** The government is keen to increase the uptake of plug-in vehicle therefore there are grants available to reduce the price

Cons

- **Initial expense.** Although drivers save money on the upkeep of the vehicle, the initial expense is generally larger than that of a normal car. If drivers plan to use the vehicle for the short distances invariably, they probably won't see as good a return on investment than someone that uses it more regularly.
- **Different driving experience.** It's something that drivers will get used to, but on the first few uses, drivers will notice a difference. Hybrids are made with light materials to make them as fuel efficient as possible but this can make handling something to get used to.
- **Less power.** The combined

paid for some brand-new hybrid vehicles. Hybrid drivers will also be exempt from congestion and low-emission zone charges and will save money in the amount of money spent on fuel.

- **Quiet.** When drivers first start the engine, they might not even realise it. Even when the car is in motion, the unique power supply causes it to fall silent.

power of the electric and petrol engines is often less than most petrol-powered engines.

- **Maintenance.** When something goes wrong with a hybrid, they can be costly to repair. Because of the continuous technology improvements, mechanics can find it difficult to diagnose and repair hybrids. As uptake increases though, it will be easier to find mechanics with expertise in more areas.

Testing a plug-in vehicle

For those yet to drive a hybrid or for people who are unsure whether it would fit with their lifestyle, it can be beneficial to have a practice run and test the vehicle in everyday life before committing to a purchase.

About the author

Will Wynter works with the franchise owners of each branch of Green Motion, to help spread the word about how valuable and popular green travel is. Green Motion is a low-emission car and van hire company. The company offers the industry's widest range of low emission vehicles, both electric and hybrid, alongside traditional petrol and diesel vehicles from their 17 branches in the UK. www.greenmotion.co.uk

EFFECTIVE WASTE MANAGEMENT SOLUTIONS THAT DELIVER GREATER EFFICIENCY AND COST SAVINGS TO THE LEISURE SECTOR

Leisure, tourism and hospitality provide millions of jobs and are vital elements to the UK's economy. Attracting over 30 million overseas visitors per year, the tourism industry alone brings with it, spend more than £16 billion per annum. The price of tourism to the UK is impactful environmentally and socially and organisations need to address their responsibilities and obligations to minimise environmental impact and resource use if the industry in England is to continue to remain sustainable and thrive.

The leisure, tourism and hospitality sectors are notorious for producing huge volumes of waste and it is globally recognised that recycling and recovery rates from these industries could be managed better. Organisations are far more aware of their responsibilities and objectives to achieve improvements in environmental performance and of course, cost reduction is always at the top of the agenda!

The way many organisations from these sectors dispose of waste in general mixed waste containers makes it difficult to pinpoint the true cost of waste and therefore, highlight areas for improvement. For the sector to reduce its carbon footprint or save money, it is important to establish what the waste consists of.

This kind of knowledge would afford the leisure, tourism and hospitality sectors the valuable information it needs to address the problems associated with legacy waste management structures currently in place and subsequently make changes that could lead to significant cost savings and improvements in resource efficiency.

All businesses, not for profit organisations and public-sector bodies must take all reasonable steps to separate dry recyclable materials. According to the 2013 WRAP report 'An overview of waste in the UK hospitality and food service sector', the total amount of waste, including food, packaging and other 'non-food' waste produced each year by UK Hospitality and Food



Service (HaFS) outlets is 2.87 million tonnes.

Only 46% of this is recycled, sent to Anaerobic Digestion, or composted. 920,000 tonnes of food is wasted at outlets every year, 75% of this wasted food could have been consumed.

Some facts about the report include:

- The amount of food that is wasted each year in the UK is equivalent to 1.3 billion meals, or one in six of the 8 billion meals served each year.
- On average 21% of food waste arises from spoilage; 45% from food preparation and 34% from consumer plates.
- 12% of all food waste is recycled.
- 1.3 million tonnes of packaging (for food and drink as well as other non-food items used within HaFS) and 0.66 million tonnes of other 'non-food' wastes are also discarded, that includes items such as disposable kitchen paper and newspapers.
- 62% of packaging and other 'non-food' waste is recycled. The highest level of recycling is for glass and cardboard.
- 56% of packaging and other 'non-



food' waste that is thrown away could have been readily recycled.

While the analysis of waste production is becoming the norm in terms of household waste, analysing business waste is a different entity that poses logistical challenges and boundaries in terms of confidentiality, health and safety and more. GPT Waste provides a fully managed waste management solution designed for the leisure, industrial and commercial sectors.

GPT provides customers with a sustainable waste management plan and better still, reduced waste collection and processing costs. The service provided ensures customers have a single point of contact for all waste requirements and a single source of invoicing.

Download the full report here. www.gptwaste.co.uk

ZERO WASTE SCOTLAND LAUNCHES NEW PARTNERSHIP APPROACH TO PREVENT LITTER

Zero Waste Scotland has launched a nationwide initiative calling on businesses, local authorities and other organisations to help cut the cost of litter clean-up and join forces to prevent it from happening in their communities.

The call was launched at the Engine Shed, Scotland's dedicated building conservation centre and an important visitor attraction, newly-opened by the River Forth in Stirling, where regular litter picks take place. Historic Environment Scotland, which manages the Engine Shed, is supporting the initiative.

Organisations across the public, private and third sector in Scotland are being invited to lead their communities in the fight against litter and fly-tipping by developing Litter Prevention Action Plans. It's part of nationwide efforts to change behaviour and attitudes towards dropping litter.

Participants to the initiative will receive support from Zero Waste Scotland to identify the litter prevention actions that make up their action plans. Actions could be as simple as putting posters up in windows to discourage customers from littering, storing waste correctly, including litter prevention messages in staff inductions, and making sure any external areas of an organisation's premises are cleared of litter.

Urging business across the country to get involved and help cut out litter, Iain Gulland, Chief Executive, Zero Waste Scotland, said: "It is clear that litter picking and cleaning alone is not a long-term solution to Scotland's litter issue. That's why we need to work together to prevent litter at its source."

"We have had a fantastic response from organisations in Dundee that are passionate about protecting their communities and the environment, and I'm excited to replicate this success across the country. I hope as many businesses

and organisations as possible will get in touch to look at putting together an action plan for your area to help prevent litter from blighting it."

Dr Mairi Davies, Climate Change Manager for Historic Environment Scotland, said: "We're pleased to support this initiative. Keeping Scotland's historic environment litter-free is a key priority for us so we can help to ensure that it remains somewhere that people can enjoy."

"Working together with partners like Zero Waste Scotland to promote this litter prevention message means we are one step closer to achieving this shared goal."

Litter has a substantial impact on Scotland's environment, economy and communities, and dealing with litter and fly-tipping costs more than £50 million a year in public money, and each year over 15,000 tonnes of litter are discarded in Scotland.

The initiative provides a unique opportunity to change behaviours and attitudes towards litter and fly-tipping among staff, customers, service users and volunteers. It also enables organisations and businesses to take a visible stand against litter and demonstrate a positive influence on their local community.



Zero Waste Scotland is responsible for delivering the Scottish Government's litter strategy, Towards a Litter-Free Scotland, and its world-leading emphasis on prevention.

Zero Waste Scotland recently launched the Litter Knowledge Network – which for the first time gathers together a suite of materials and expertise specifically targeted at preventing litter and fly-tipping that will help protect Scotland's natural resources, and make best use of public money.

Any organisations interested in finding out more about the initiative should visit www.zerowastescotland.org.uk/litter-flytipping/prevention-action-plans or email litterandflytipping@zerowastescotland.org.uk

THAMES VALLEY FIRE AND RESCUE SERVICES COLLABORATE ON NEXT GENERATION OF FIRE ENGINES

The next generation of fire engines is now starting to serve in the Thames Valley following a successful 18-month project run in a partnership between Buckinghamshire & Milton Keynes Fire and Rescue Service, Oxfordshire County Council Fire and Rescue Service and Royal Berkshire Fire and Rescue Service.

Their collaborative work has delivered fire engines which include the latest innovation and technological advances, and also further align working practices between firefighters in the Thames Valley.

During the project a joint procurement exercise and rigorous testing process were held, resulting in the agreement of a contract for a total of 37 new fire engines over the next four years.

Fifteen vehicles have been ordered in the first year of the four-year contract, with eight for Buckinghamshire, three for Oxfordshire and four for Royal Berkshire. The vehicles will be located at stations close to the three services' shared borders and replace existing vehicles.

Four of the new vehicles were on display during an event which was held at Abingdon Airfield on Wednesday, 13 September.

The new fire engines were built by Emergency One (UK) Ltd on Volvo FL 42R chassis. The 15-tonne vehicles symbolise the high levels of collaboration which have been achieved by the three services since the establishment of a shared Thames Valley Fire Control Service and the signing of a Memorandum of Understanding in 2015.

The enormous amount of work that has been undertaken by staff to bring the project to fruition also underlines the three services' commitment to the fire reform agenda.

As well as enabling the services to modernise their fleets and equipment and increase resilience levels, they achieved total estimated savings from buying in bulk of around £720,000.



Councillor Angus Ross, Royal Berkshire Fire Authority's Lead Member for Strategic Assets, said: "We are delighted to unveil a series of modern, fit-for-purpose fire engines with all the associated equipment that complements our existing fleet of vehicles and allows us to deliver an improved service for all of our communities."

"The new fire engines have been equipped with larger hose reels to enable higher rates of water delivery and they carry more battery powered equipment, to increase our speed of deployment at an incident and reduce the total weight of the vehicle. Training our crews on using the equipment will become easier and more cost effective as we align our ways of working with the other fire and rescue services."

Councillor Roger Reed, Chairman



Firefighters from Oxfordshire and Berkshire with Councillor Judith Heathcoat, Councillor Angus Ross, Councillor Peter McDonald, Area Manager Neil Boustred, Area Manager David Heycock and Area Manager Jim Powell.

of Buckinghamshire & Milton Keynes Fire Authority, said: "By working closely with our Thames Valley fire and rescue service partners in the procurement exercise, we have been able to increase the efficiency of our fleet."

"Not only has this resulted in making our money go further, but it also means that our crews can work seamlessly together with our partners. Resources can be better shared at incidents and we can better align our

training and procedures to the same standards and requirements as our counterparts moving forward."

Councillor Judith Heathcoat, Deputy Leader of Oxfordshire County Council and the cabinet member for Oxfordshire Fire and Rescue Service, said: "This project has built upon the collaboration that has been going on for a number of years between the three fire and rescue services, including the move to a shared Thames Valley Fire Control Service in 2015."

"This is an excellent example of public sector collaboration which is not only an effective and efficient way of working, but a moral duty to help protect the communities we serve. It further embeds shared working practices and allows us to better align our response to ensure our communities receive an effective response no matter which side of the county border they live in."

The project paves the way for standardised inventories and shared operating procedures across the three services. This will be particularly beneficial when crews are responding to cross-border incidents and also make it easier for the Services to deliver shared training packages for their crews.

One of the key design principles was to make the appliances as universal as possible so that crews across the three services could operate each other's fire engines seamlessly, if needed.

The project produced a specification featuring a number of improvements, along with the latest innovation and technological advances, including:

- Larger (22mm) hose reels to enable water to be delivered more quickly to extinguish fires.
- Battery-powered extrication equipment, which is easier to carry and less bulky than hydraulic equipment, eliminates potential hydraulic hose hazards and removes generator noise from rescue situations.
- Improved mobile lighting for better visibility at the scene of an incident.
- A more comfortable seating area for crews. This is especially important as firefighters are typically spending more time in the fire engine, completing prevention work such as Home Fire Safety Checks (HFSCs).

YPO OFFERS FLEXIBLE WAY TO PROCURE ENFORCEMENT AGENCY SERVICES



YPO, the UK's largest public sector organisation, has recently announced news of its collaboration with The Civil Enforcement Association (CIVEA) to create a dynamic purchasing system (DPS) for enforcement agencies.

The DPS has been established to allow public sector customers to procure services for the provision of enforcement agency services, which includes the collection of all debt types such as council tax, parking fines, road traffic fines as well as social care debts. Customers can benefit from using a DPS as it's more flexible than a traditional public sector framework as suppliers can come on board at any time during the term - but it still offers a compliant way to tender for contracts.

An added benefit of YPO's DPS for enforcement agencies is the partnership with CIVEA, which provides further support to local authority customers. The support includes ready-made document templates which can be used during the process as well as a dedicated in-house team to hand-hold customers through the process.

YPO's head of procurement Gillian Askew said: "We're delighted to partner with CIVEA to launch this new DPS to the public sector, as it offers not just a supported and flexible

solution for customers, but also a sustainable tendering portal for the benefit of both clients and contractors. We can help customers through the procurement process, providing them guidance and support at all stages.

CIVEA's endorsement also demonstrates the strong credibility of the DPS, in what can be a challenging industry." CIVEA's president Kevin McCarthy said: "By partnering with YPO, we've been able to pass on great value to local authorities during times of stringent budget cuts. We're committed to providing long-term support and anticipate this DPS will become the preferred choice for authorities looking to procure enforcement agency services."

YPO's previous DPS for enforcement agencies has since expired, which has provided YPO and CIVEA with an opportunity to widen the scope and make improvements to the solution. For example, the previous DPS focused on the collection of council tax, parking fines and non-domestic rates but now the expanded offering includes services such as traveller evictions and the collection of other debt types like social care fees.

If you'd like to find out more about YPO's DPS for enforcement agencies visit ypo.co.uk

UK PUBLIC SECTOR PROCUREMENT: CURRENT STATE OF PLAY

Ian Ronayne, SAP



As the dust just about begins to settle on the 2017 General Election, and we begin to get a clearer idea of the Government's way forward on various policy areas, now is a good time to collect, and consider what this might mean for public sector procurement.

The Conservative Party's manifesto with regards to this, pledged that 'Central government must play a role in supporting SMEs: across all government departments, we will ensure that 33 per cent of central government purchasing will come from SMEs by the end of parliament... we will use our buying power to ensure that big contracts comply with Prompt Payment Code both of government contracts and in their work with others. If they do not do so, they will lose the right to bid for government contracts'.

The message is clear and consistent with the Government's central thrust on public procurement before the election was called and as laid out in the Industrial Strategy Green Paper; the central focus and commitment is around supporting and encouraging SMEs to play a bigger part in the public sector supply chain.

But there is another trend, and that is the ever increasing pressure to pay less wherever possible, both in capital investment and servicing charges, but (as far as possible) without compromising current levels of service and productivity. We have therefore seen a trend towards partnering, collaboration and service sharing among local authorities, agencies, NHS trusts and other public sector entities, and a further drive to rationalise systems.

Post-election, the Government officials responsible for procurement

will be once more will be reviewing their options for achieving SME inclusion and cost reduction, balanced with quality maintenance.

The case for business networks, to pull off the balancing act

In order to pull off this balancing act, the Government needs to focus on the short and medium term as much as the long term. Public sector procurement should be seen as a strategic and value-generating function that plays an essential role in supporting UK economic growth, supporting small businesses, and transforming digital procurement and innovation over time, but there is an urgent need to focus on short and medium terms actions to improve efficiency and productivity.

One way to make improvement rapidly is through public sector uptake of business networks that support both public and private sector requirements, breaking down the silos and reducing complexity for SMEs. Such common platforms would enable departments and the wider public sector to share and replicate common approaches. Savings would then be obtained by improved processes, price transparency, increased supplier diversity and budget controls on the procurement side, and would be equally matched by improved process, faster procurement and access to wider markets on the vendor side.

SAP calculates, based on existing UK public sector adoption that moving even a proportion of centrally controlled government procurement to existing business networks would have significant benefits; on an estimated £40bn of relevant central

government procurement, we estimate government could save £2.5bn, and UK SMEs would benefit by £2.33bn.

It would also support government initiatives to increase levels of procurement with SMEs, with an additional economic benefit of £613m according to Government estimates. And burdensome pre-qualification questionnaires, greater transparency and ensuring timely payment are all issues for SMEs that can be addressed by standardising on common usage of common business platforms.

Navigating Brexit

Of course, overshadowing all initiatives to improve UK public procurement, is Brexit and our future relationship with the EU, with UK procurement policy currently heavily shaped by European Union law, with much procurement required to go through the EU's standardised process (OJEU) if above certain size thresholds.

The central focus for the UK Government with regards to public procurement and Brexit, will be protecting the rights of workers throughout supply chains and continuing to encourage UK SMEs to play their part in the supply chain to the tune of 33%.

It is for this reason, also, that business networks should be seen as a great enabler for the UK public sector and UK business; they support local supply chain initiatives and local enterprise initiatives, ensure an up-to-date supplier base, allow transparency and enable exports. Whilst we are uncertain of the exact Brexit impact at this stage, this is certainly a hedge against the outcome. www.ariba.com

PUBLIC SECTOR ENTERING 'WILD WEST' AS UK HITS PEAK GDPR FRENZY, SAYS ST2 TECHNOLOGY

Public sector organisations must take greater care when choosing General Data Protection Regulation (GDPR) compliance partners by ensuring that the right balance of legal and technical delivery skillsets are in place. This is according to ST2 Technology who suggests that a failure to do so will inevitably lead to significant compliance failures after the new regulations take hold.

GDPR means significant changes that will affect public sector organisations, especially as these companies hold some of the most sensitive and personal data in the UK. In fact, information reported by the Information Commissioner's Office (ICO) shows that UK local government organisations accounted for 11 per cent of all reported data security incidents in the last three years and, just recently, Nottinghamshire County Council was fined £70,000 by the ICO for leaving vulnerable people's personal information exposed online for five years.

Richard Hannah, Head of Consulting at ST2 Technology, suggests that with public sector organisations facing an uphill struggle as they attempt to maintain the integrity of their data, there has been a sharp rise in assessment kits and non-specialist consultants offering advice to organisations on how these companies can ready themselves, despite not necessarily having the relevant and appropriate experience.

With GDPR offering citizens compensation when a breach occurs, the regulation could spawn 'PPI' type agencies to pursue claims against local authorities.

He explains: "Radical changes to how public sector organisations manage their information will be required if they are to be compliant when GDPR comes into force. This is creating a sense of

urgency as organisations try to get to grips with their data, how it is handled, where it is stored and who has access to it. However, as a result there has been a rush from consultancies to fill the market void, leading to untested and potentially incorrect approaches to ensuring compliance. We can expect a lot of teething problems and some significant compliance failures coming to light over 2018/19.

"For many consultancies, customers looking for partners to help them become compliant with GDPR is the equivalent of a new gold rush – however, less speed and more haste should be the mantra as we all work with the new data landscape now coming into view.

"The public sector must recognise that GDPR is not just about company records, data and processes, it is also about the law as it affects an organisation's commercial arrangements, technology, risk management and its ability to transform operations to maintain compliance – doing nothing really is not an option and many of the public sector's issues are systemic," adds Richard.

ST2 Technology has built its Assessment, Compliance and Transformation (ACT) framework - which provides comprehensive analysis, planning and implementation of technology - in order to help organisations identify and address

any GDPR compliance gaps.

The framework starts with a comprehensive analysis of an organisation's readiness against the new legislation. This assessment covers contractual elements, process, technology and legal readiness. A gap analysis is then created and delivered to management. This is followed by a compliance roadmap that provides a detailed plan to eliminate the risk within the organisation, encompassing contracts, operations, legal and technology.

The ST2 framework then identifies any technology performance issues that may require additional safeguards. Finally, the plan is executed, led by ST2 consultants who work with in-house teams to deliver the transformation phase.

"The ACT framework manages every aspect involved when it comes to achieving compliance; we provide, planning, implementation and optimisation of technology, and even the provision of tools, training and software solutions to ensure companies can maintain compliance with this tough piece of legislation. We firmly believe that no other GDPR portfolio service is as comprehensive as this, not only in delivering compliance, but also when it comes to the tools required to maintain compliance," concludes Richard. www.st2.tech

A full-page photograph of two men standing on a flat roof. The man on the left is wearing a white hard hat, a white high-visibility vest over a light blue shirt, and dark trousers. The man on the right is wearing a white hard hat, a white high-visibility vest over a light blue shirt and tie, and dark trousers. Both men have a green forest scene superimposed over their midsections, from the waist down to the knees. They are standing on a dark grey roof surface. In the background, there are green trees and a clear blue sky. A white double-flashed roof vent is visible on the roof to the left of the men.

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