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AUTUMN/WINTER 2021



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Wates Smartspace expands DWP portfolio

National property services provider, Wates Smartspace, is underway with a £4m refurbishment project on behalf of the Department for Work and Pensions (DWP).

Wates Smartspace has been appointed to deliver mechanical, electrical and plumbing engineering works at the DWP's Blackpool Peel Park Offices, a hub designed to be at the forefront of its digital and change transformation.

Work includes the replacement and refurbishments of chillers, boilers, electrical systems and

internal upgrades of tea points and toilets, as well as external refurbishments and hard landscaping.

The Peel Park Offices appointment is the latest DWP contract win for Wates Smartspace, with major office fit out projects recently completed in Birmingham and Hastings.

Scott Camp, Managing Director of Wates Smartspace, commented: "We are delighted to have secured another contract with one of our key customers, enabling us to further strengthen and continue to develop our existing relationship with DWP.

"The Peel Park Offices appointment is testimony to the breadth of experience and in-depth understanding our team has developed through our existing contracts with DWP.

Wates Smartspace works across a number of sectors,

including banking, retail, developers, pharmaceutical, healthcare, broadcasters, and owners and occupiers of commercial offices and public sector organisations. Project values range from £20,000 to £25m.



Eilish McGuinness is appointed Chief Executive of The National Lottery Heritage Fund

The Chair of The National Lottery Heritage Fund and National Heritage Memorial Fund, Simon Thurley, today announces the appointment of a new Chief Executive, Eilish McGuinness, who will lead the UK's largest heritage funders from the new year.

Eilish will become the Chief Executive of both The National Lottery Heritage Fund and the National Heritage Memorial Fund (NHMF), which has just marked its 40th anniversary as a fund of last resort to safeguard the UK's heritage treasures.

Eilish has worked in heritage for all her professional life and has extensive experience of the sector, and the breadth of heritage right across the UK.

She joined The National Lottery Heritage Fund in 1996 and has held a variety of roles, both operational and strategic. She is currently Executive Director of Business Delivery.

Prior to joining The National Lottery Heritage Fund, Eilish worked with Historic Scotland, Historic Monuments & Buildings Branch, Northern Ireland and in the heritage sector in Dublin.

Eilish has a degree in History of Art and Archaeology from University College Dublin, and an MA from Queen's University Belfast, where she was a junior research fellow in the Institute of Irish Studies at Queen's University Belfast.

Sword GRC wins Rising Star Award from Chartis Research

Global ERM software market leader, Sword GRC secures RiskTech100@ 2022 'Rising Star' accolade.

Sword GRC, a provider of specialist risk, compliance and governance software and services is proud to announce that it has been recognized by Chartis Research as a 'Rising Star' in its 2022 RiskTech100@ Awards, a unique benchmark ranking the top 100 players in the global risk technology space.

The 'Rising Star' award highlights up and coming risk management software vendors which are, in the opinion of Chartis Research analysts, the companies to watch. Sword GRC's best-in-class ERM solutions put risk, governance and compliance management at the heart of strategic and operational decision-making, enabling its customers within core global markets of infrastructure, energy, aerospace and defense, construction and government to achieve both project and longer-term strategic business objectives.

"We're exceptionally pleased to feature in the RiskTech100@ by Chartis Research, a leading provider of independent research and analysis on the global market for risk technology," said Keith Ricketts, VP of Marketing at Sword GRC. "With a multi-million dollar investment in leveraging digital technologies that enable world-class organizations to make better, risk-based decisions that optimize business performance, provide greater resilience and agility, Sword GRC is very much on the ascendant, meeting the diverse needs and challenges of our customers and keeping them ahead of the GRC curve within their respective industries."

Commenting on the award win, Sid Dash, Research Director at Chartis Research said: "Sword GRC's RiskTech100@ award reflects its innovation and customer focus, and the contribution that its risk management solutions make in driving and supporting enterprises' performance and best practices."

SNIPEF's Training Services and nine Scottish colleges shortlisted for "Best Use of Technology in the Delivery of Plumbing Training" Award for Excellence by BPEC

The Scotland and Northern Ireland Plumbing Employers' Federation's (SNIPEF) training arm, SNIPEF Training Services, (STS) working together as a task group with nine of Scotland's colleges, has been shortlisted in the category of "Best Use of Technology in the Delivery of Plumbing Training" by BPEC, the nationally recognised training organisation which is set to hold its Annual Awards for Excellence 2021 ceremony online on Wednesday 08 December.

STS subcontracts off-the-job training to 18 colleges located across Scotland where around 850 apprentices are currently in training. The COVID-19 lockdown and the closure of colleges throughout the country, presented the challenge of ensuring apprentices remained on track to complete their

Plumbing & Heating (P&H) Modern Apprenticeship (MA).

Apprentices were unable to enter college premises to undertake their theoretical/practical assessments in the SQA assessments rooms, so STS approached the MA joint awarding bodies, the Scottish Qualifications Authority (SQA) and the Scottish and Northern Ireland Joint Industry Board (SNIJIB) to explore alternative assessments (AA) procedures.

Dale Thomson, Apprentice Training Manager for SNIPEF, said: "First, we had to ensure any new assessments could be accessed by all apprentices from the safety of their own homes, so we decided to use Microsoft Forms as all apprentices have a Microsoft account.

"Second, with distance learning, we had to ensure that all apprentices had access to suitable IT equipment and were able to undertake assessments,

so we worked with our subcontractors to facilitate this."

Together the task group created 19 AAs with three variations each, typically with around 20/40 questions in each assessment. The work for the AAs ensured that when colleges were able to return, they only had to get apprentices up to date with their practical assessments.

"The new AAs have been well received from the CN (?), employers, apprentices and the Scottish Government's Skills Minister, Jamie Hepburn. Due to its success the joint awarding bodies asked STS to look after and maintain the AAs which will in due course replace the SQA solar assessments", said Mr Thomson.

Fiona Hodgson, Chief Executive of SNIPEF, said: "The clarity and determination with which the task group addressed the issue and rapidly developed an excellent alternative solution is a tribute to the professionalism of its

members.

"It is gratifying to have been shortlisted for this award which, in its own way, underlines the importance of applying new technologies to a range of issues not only within the plumbing and heating sector but in the UK construction industry generally."

Dale Thomson



Atos and Metropolitan Police Service strengthen relationship with new application management contract

Atos has been awarded a contract by the Metropolitan Police Service to deliver Application Management Services to support the Service's digital policing vision for up to seven years.

As part of the contract, Atos will maintain and modernise the Metropolitan Police Service's application landscape, including refreshing legacy applications, as well as delivering upgrades that

enable transformation through harnessing data and digital technologies.

The solutions delivered by Atos will help the Authority to enhance digital service performance, optimise management processes and boost innovation, enabling Metropolitan Police officers to deliver an efficient and cost-effective service which keeps London safe.

This new application management contract will see

Atos support the Metropolitan Police Service as the Service seeks to accelerate its journey towards achieving its digital policing vision. Atos has worked with the Metropolitan Police Service since 2015, providing the Service Integration and Management Tower (SIAM) to ensure a co-ordinated end-to-end delivery of ICT services.

Nikki Kelly, SVP Public Sector and Defence Northern Europe, Atos, said: "I am

proud that Atos is selected for delivering application services to Metropolitan Police supporting the rapidly changing needs of the largest police force in Europe. We are bringing a proactive data led approach to delivering the application services. We will deliver these in a real partnership focusing on the needs of policing and supporting the digital policing vision."

Pick Everard and Wood form consortium to secure major CCS framework appointment

TWO leading construction consultancies have formed a brand-new consortium to add to their procurement portfolios with the appointment to one of Crown Commercial Service's (CCS) major public sector frameworks.

Pick Everard and Wood hold reputations as being among the UK's leading providers and working together will lead to greater success and greater benefits for clients. The formed consortium will bring together the firms' collective expertise, resources, and skills to support the public sector throughout the whole of the UK – and internationally.

Together, the firms have been appointed to five of the six available lots under the RM6165 Construction Professional Services framework covering:

- Lot 1 – Built Environment and General Infrastructure
- Lot 2 – Urban regeneration
- Lot 3 - International
- Lot 4 – High Rise
- Lot 6 - Environmental and Sustainability Technical Services

The Construction Professional Services framework is the UK's largest public sector framework of its kind, with a total value of

up to £1.7bn. It replaces CCS's Project Management and Full Design Team Services framework, to which Pick Everard and Wood Group were both previously appointed. Under the new consortium, clients will benefit from the two organisations' combined forces now serving the appointed lots in collaboration.

Crown Commercial Service supports the public sector to achieve maximum commercial value when procuring common goods and services. In 2020/21, CCS helped the public sector to achieve commercial benefits equal to £2.04bn – supporting world-class public services that offer best value for taxpayers.

This latest appointment follows a raft of successful framework wins for Pick Everard, including two other CCS frameworks – namely the Estates Management Services and Management Consultancy Framework Three. Managing partner Duncan Green said: "We are absolutely thrilled to be announcing this consortium agreement with Wood, another industry heavyweight.

"When working in such close collaboration with another organisation, the cultural alignment is of utmost importance. We have worked

closely with Wood throughout recent years and this consortium appointment is the next step in the evolution of our relationship. The complementary expertise and shared client-focussed approach across our businesses will position us well to tackle any project in the public sector, providing the best possible solutions and services for any client.

"We're also really pleased to see the appointment mark us within the top consultancies being successfully awarded more than four lots on the framework, backing up the excellent industry reputations of both businesses. We look forward to continuing our collective work to deliver the excellent, high-quality services and developments for the public sector that we are known for."

The lot appointments will see the two organisations able to support public sector bodies in delivering a wide and varied range of major and minor building and civil engineering projects throughout the UK, as well as internationally under lot 3. This will cover projects that include infrastructure, urban regeneration, and high-rise accommodation typically more than 18m in height, along with the provision of environmental and sustainability

technical services.

Wood is a global leader in consulting and engineering across energy and the built environment, operating in more than 60 countries and employing around 40,000 people. For more information, please visit www.woodplc.com.

Pick Everard employs more than 600 staff across its 13 offices, providing a range of project, cost, and design consultancy services.

For more information, please visit www.pickeverard.co.uk.



Duncan Green

Comment to the editor: Turning Point - These proposals will not 'fix social care'

Recently, the government published its Social Care White Paper People at the Heart of Care. Responding to the publication, Julie Bass, Chief Executive at Turning Point, has told GPSJ.

"We are pleased the government has honoured its commitment to publishing a white paper by the end of the year. However, we are concerned that these proposals

will not 'fix social care' as Boris Johnson promised.

"It's good to see the government's ambition to develop more person-centred services, increase the range of supported housing options available, improve the opportunities for employment for people with a disability and recognition of the significant part of the sector that supports working age adults, for example people with a learning disability.

"The LGA has estimated that the sector needs an additional £2.6bn each year to stabilise the market. This is to account for increasing demand, inflation and increases to the national living wage. The money raised from the new health and care levy which has been allocated to social care reform will not meet this test.

"And this is before any of the reforms set out in the white paper have been put in place such as

improved use of technology in the care sector and better training and wellbeing support for the workforce.

"Social care plays a vital role in creating communities where we would want to live. It is in all our interests that the sector is properly funded, that care workers are better paid and that nobody who needs support is left to struggle alone."

Ex-NBS CEO Richard Waterhouse joins BBA board

Digital construction expert and former NBS CEO Richard Waterhouse has joined the BBA board as a non-executive director in a move that will advance the organisation's commitment to efficiency and customer service.

His appointment comes at a pivotal time for the British Board of Agreement as it shifts to a fully systems-led organisation. Digitisation is key to this transformation and Richard's background as an early adopter of CAD/construction information and his experience leading NBS's transition to a digitised organisation will prove invaluable to BBA CEO Hardy Giesler and his senior management team.

He said: "Richard brings with him a wealth of knowledge and experience as an industry leader who truly understands the power of construction data in the design, supply and construction of the built environment. He is a fierce believer in using technology to solve client problems and forge partnerships across the industry. We believe Richard's input will be fundamental in helping the BBA become a truly systems-led organisation, putting clients at the heart of everything we do. We wish him well in his appointment."

Richard said of the appointment: "I am delighted to be able to join BBA as it continues its transformation into a customer focussed organisation playing a

pivotal role in construction product safety. Its digitalisation journey will reinforce its focus on safety and transparency. I look forward to supporting Hardy and his team on this journey."

A Chartered architect, Richard brings a broad range of skills to his BBA NED role. He led the successful management buy-out of NBS in 2018, helping transform it into a leading provider of digital content and BIM tools recognised worldwide for the quality of its software and content as well as its innovative application of technology. In addition he has chaired the B555 British Standards BIM committee, the CB5 construction standards strategy and co-chaired the

European Standards CEN/TC442 Working Group on BIM Strategy and Planning. He has also been Head of UK delegation for the International Standards Organisation TC59 SC13.



Richard Waterhouse

Konica Minolta accelerates end-to-end accounts payable process for Saltire Facilities Management

Konica Minolta Business Solutions (UK) Ltd announces its automated invoice processing system has enabled Saltire Facilities Management to accelerate its end-to-end Accounts Payable (AP) process and gain new financial insights. The automated solution has significantly reduced the time and cost of invoice processing, liberating team resources from repetitive transactions to focus on more strategic tasks.

Saltire is one of the UK's largest central heating and electrical service providers, working in partnership with private and public landlords and local authorities to manage more than 80,000 properties. Previously, Saltire's AP team received purchase invoices primarily by email and post, with repetitive, manual paper-intensive procedures that were tedious

for staff. Slow and expensive to perform, it was also difficult to extract meaningful financial insights from the data.

To ensure Finance is a proactive function, providing real-time financial insights to drive innovation, productivity and growth, Saltire wanted to take control and streamline invoice processes, ensuring finance data is managed in a timely, accurate manner. To address this, the Finance and IT team at Saltire engaged with Konica Minolta to discuss their AP challenges and needs.

According to industry research, the average cost of manual processing an invoice is £8.47 and takes 8.8 days to process. Automated invoice processing reduces this to an impressive £1.55 and four hours respectively.

Konica Minolta initially conducted a one-day workshop to examine the process in step-

by-step detail. Scott McFarlane, Finance Manager at Saltire explains, "The Konica Minolta team were very well prepared. They understood our business, our goals, and our finance model. The expert team documented all the required processes and how we could connect our new automated finance model with the existing Sage 200 software."

Konica Minolta created a comprehensive scope of works document which included planning and a detailed implementation roadmap for the automated invoice processing solution, which enables Saltire to capture incoming invoices and map them in Sage 200. This modern and intelligent account automation system captures all purchase invoices, both electronic and hard copies.

Invoice processing is now completed accurately in a fraction of the time it used to take using

the old manual process. Scott comments, "The Konica Minolta digital invoice processing system has been a huge time-saver in our finance department, and the integration module to our Sage 200 couldn't be any slicker. We would strongly recommend Konica Minolta for any forward-thinking organisation looking to digitise their account payable processes."

Looking ahead, Saltire is exploring whether to deploy the document management and workflow automation system more widely in other business units. "Konica Minolta ticks all the boxes," says Scott. "With their expert advice and guidance, we have seamless integration with our Sage 200 platform, resulting in fast, accurate and compliant invoicing at lower cost."

Revving-up Revenues:

How urban media operators can help to subsidise the growth and running costs of smart cities to the benefit of citizens



Annie Rickard, Managing Partner of OOH Capital

Every day articles are published about what a city should be. At the same time, there is much discussion around the way people's work habits have changed because of the pandemic and the impact remote working is having on city environments.

Whether it's a one-minute city or a fifteen-minute city, or some other city, they will all have one thing in common. Things have changed and, as stated in the latest Global City Report from management consultancy A T Kearney, city planners must 're-imagine city planning in a way that makes the lived environment more sustainable, resilient and inclusive'.

One asset that is often overlooked or undervalued in this equation is urban media: communication in public spaces. This is also commonly known as Out of Home Media.

Most cities and municipalities around the world already

derive valuable revenue share income from Urban Media. And additionally mobilise valuable free public messaging campaigns through their Out of Home media estates, with posters and digital screens that are tastefully incorporated in bus shelters, on public land and in public transport networks, providing important civic and safety information, that reach and impact their citizens when they are away from home, engaged in the activities of daily life.

And the income can be significant. It is estimated that a large proportion of revenues generated through Out of Home advertising ends up in city treasuries, through revenue sharing agreements with Operators. But can city authorities achieve more, by revving-up their revenues from urban media and unlocking the hidden value residing in these often-underexploited estates?

Cities have long accessed these benefits through varied

webs of commercial partnerships with Out of Home Operators that offer, through these urban media facilities, a vast spectrum of civic amenities and other essential community services.

They range from bus shelters, public toilets and way-finding signage to providing a medium for public messaging, a service that has been much utilised by authorities during the Covid pandemic.

And these Urban Media Operators offer services that maximise incremental income potential while providing the next-generation amenities that enable convenience and promote community pride.

However, many of these commercial partnerships have been negotiated at different times over long time spans, that were codified before the introduction of today's cutting-edge technologies, which means that cities may not be fully aligned with the needs of 21st century communities and their citizens.

It's time for cities to optimize their existing and future urban media programmes by rationalising and streamlining commercial relationships and investigating the financial and community benefits that the latest technologies afford. This will allow cities to leverage the potential of innovation and digital integration.

By reviewing and improving how they manage their urban estates, cities and municipalities can introduce new revenue streams, enhanced civic communications, and deliver an improved carbon footprint, all the while building better municipal services including data integration, security solutions and maintenance assistance.

And urban media, with its financial contributions and innovative ways of providing public amenities, can make a great contribution to the process of financing new ideas and making public spaces more useful, attractive and friendlier environments.

Orion Health supports Professional Record Standards Body partnership scheme

Leading shared care record and population health management provider to become 'quality partner' and early adopter for assessment against the core information standard. Move demonstrates Orion Health's commitment to open systems and standards that will guide the development of shared care records in England.

Orion Health is supporting the Professional Record Standards Body's partnership scheme by applying to become a 'quality partner'.

The company, which is one of the UK's leading providers of shared care records and population health management systems, will work with the PRSB to develop the 'core information standard' and its assessment process.

The 'core information standard' is critical because it underpins the NHS' drive to make sure that every integrated care system has a 'basic' shared care record in place and is ready to develop a 'comprehensive' shared care record by 2024.

Orion Health will also be assessed against the PRSB's 'document naming' standard as part of its support for the partnership scheme, which has been set-up to recognise healthcare IT vendors with a strong commitment to best practice.

Nadine Carey-Whitehead, sales director at Orion Health, said: "Open standards are core to what we do at Orion Health. Without them, it is incredibly difficult to gather and make sense of all the data that needs to go into a shared care record from across the health and care sector, so we are always looking out for ways to support their development and adoption.

"We have said that we will help the PRSB to develop its core information standard and the process for assessing companies against it in any way that we can. As a market leader, we have the



Nadine Carey-Whitehead

benefit of having a product in use on the ground that already exceeds the requirements of the 'basic' shared care record.

"However, we want other companies to be using this standard and for customers to be asking them to do that. If everybody uses standards, it supports the production of high quality information and the whole industry moves forward. We can all get the 'basic' shared care record done and move onto other things that will benefit the system, clinicians and patients."

The PRSB helps to develop and implement standards for the structure and content of health and social care records and is looking to become the "authoritative voice" on what constitutes a high-quality electronic record.

It set up the partnership scheme earlier this year, to create an alliance with the health and tech sector and to recognise vendors committed to best practice.

Companies can join at two levels: as a partner, to demonstrate their commitment to standards; and as a quality



partner, to demonstrate that they are meeting one or more standards.

Lorraine Foley, chief executive of the PRSB, said she was delighted to have Orion Health on board. "The intention of our partnership scheme is to move everybody forward by getting the standards that we have developed adopted and used," she said.

"At the heart of being a quality partner is an assessment of compliance with one or more standards and Orion Health has agreed to become an early adopter of the 'core information standard', which underpins shared care records.

"It is different from some of the standards we have developed, because it is a collection of data items that can be used at many points in the patient journey, so the question of whether it has been met or not is going to be nuanced.

"We will work with Orion Health and others to come up with a sensible assessment process that will deliver meaningful results."

The PRSB and Orion Health are keen for more suppliers to join the partnership scheme.

Foley said vendors welcomed the opportunity to work with its experts and clinical teams on standards specifications, while the PRSB benefited from input on how the standards could be adapted to work better in practice.

However, the PRSB is also looking at how it can include NHS providers, to create a "gravitational pull" for making open standards a requirement in systems procurements and deployments.

"What we want is the PRSB, vendors, and providers all pulling in the same direction, to create better records that will support more efficient, better care," she said.

Carey-Whitehead agreed – and argued that the development and deployment of open standards will be particularly important as the NHS looks to adopt new digital ways of working as it repairs and resets after the pandemic.

"COVID-19 highlighted not just the necessity for, but also the benefits of a shared care record. It taught us that we need to do things differently, but we need to do them in a standardised way."

Tech helps GPs reduce diabetes and stroke incidence through improved antipsychotic prescribing

New AHSN analysis of how NHS primary care prescribers use medicines optimisation solution FDB OptimiseRx, shows substantial clinical benefits and financial impact around reducing antipsychotic medicines for at risk patients. A return of £1.20 for every £1 invested was calculated from the impact of just three of more than 4,800 prescribing messages.

Reductions in stroke and diabetes from improved antipsychotic prescribing are just some of the clinical benefits being achieved by thousands of GPs and other primary care prescribers, after being informed by a medicines optimisation solution.

The finding, which comes at a time of renewed government urgency around overprescribing, is revealed in a new health economic analysis carried out by Kent Surrey Sussex Academic Health Science Network (KSS AHSN). KSS AHSN examined the impact of NHS use of FDB OptimiseRx, a solution currently used by around two thirds of GP practices across the country, covering more than 38 million patients.

FDB OptimiseRx messages deliver patient specific prescribing information when the clinical information in the patient record indicates that a prescription may not be in line with national or local best practice guidance. Messages can be used to discourage overprescribing or to offer clinically appropriate alternatives with less side effects or risk of harm.

As part of its research, KSS AHSN carried out an analysis of the clinical, financial and economic value of just three

of more than the 4,800 best practice primary care messages in OptimiseRx. These messages relate to the prescribing of antipsychotic drugs for patients with learning disabilities (LD), generalised anxiety disorder (GAD), or dementia.

The report noted that though antipsychotics can be useful to treat certain mental health conditions, they are not always the most appropriate prescription for all patients. Sub-optimal or incorrect antipsychotic prescriptions can lead to adverse side effects, for example suicidal thinking and weight gain, that can impair the patient's ability to complete daily activities. Traditionally, correct prescription of medicine relies on the prescriber's own knowledge.

"OptimiseRx is positioned favourably to aid in avoiding sub-optimal or incorrect prescribing of antipsychotics, for learning disabilities, generalised anxiety disorder, and dementia patient cohorts, by providing patient specific messages that may aid in the prescriber's decision making," said Ian Mylon, CEO of KSS AHSN's Analytics and Evaluation Unit (now called Unity Insights).

KSS AHSN examined how three messages in OptimiseRx "flag the improper use of antipsychotics within these

modelled cohorts", adding that "alerting or stopping an incorrect prescription could lead to several benefits for patients, their families, and the NHS".

In particular, analysis modelling over a five-year period forecast a range of significant clinical benefits associated with the messages. These include:

- **reduced incidence of diabetes and treatment costs:** Antipsychotic usage is correlated to an increased risk of type II diabetes due to antipsychotic effects on insulin sensitivity and secretion, according to research cited in the analysis;
- **reduction in stroke incidence:** The analysis noted a study that showed patients are at a statistically significantly higher risk of stroke when they are exposed to antipsychotics;
- **reduction in outpatient and inpatient costs associated with tardive dyskinesia:** A drug-induced movement disorder;
- **reduced prescribing costs;**
- **gains in quality of life from therapy.**

The analysis also described a number of unmodelled potential clinical benefits including reductions in akathisia, dyspnoea, sudden death, cardiac

effects as well as myocarditis avoidance.

Over a five year period starting in 2021/22, the analysis modelled £91 million of benefits from the three messages. After taking into account the cost to the NHS of the entire OptimiseRx solution, as well as the cost for therapies prescribed to LD, GAD and dementia patients as an alternative to antipsychotic medicines, the analysis calculated a net return on investment of £1.20 for every £1 invested. This was determined by solely looking at the impact of the three antipsychotic medicine messages provided by OptimiseRx for the relevant patient population.

Darren Nichols, managing director at FDB, said: "The issue of potential harm and unnecessary waste from overprescribing is once again a priority area for the government and the NHS. At the same time, the NHS is placing increasing emphasis on measuring success of digital implementation, something that we are equally eager to understand for the benefit of our customers.

"This health economic analysis from Kent Surrey Sussex Academic Health Science Network demonstrates just some of the clinical value of



Darren Nichols

our solution to clinicians, who are making use of a tool to inform appropriate prescribing decisions for their patients. A significant return on investment was also cited after analysing and modelling the impact of only a tiny fraction of the thousands of messages in OptimiseRx. Technology suppliers must play a role in helping the NHS to understand where it is getting

value from digital adoption, in this case as a means to support important changes to prescribing processes and approaches."

The findings from KSS AHSN have been revealed after the government announced widescale system and cultural changes to prevent unnecessary medicines prescribing. This action was in response to a long-awaited review by chief

pharmaceutical officer for England, Dr Keith Ridge, "Good for you, good for us, good for everybody", which found that many patients were being prescribed unnecessary or even harmful treatments.

The research from the AHSN around improvements in antipsychotic prescribing is the latest in a series of analyses on the impact of OptimiseRx in

the NHS, as a means to help reduce prescribing related harm. Previous work has looked at impact such as the potential prevention of up to 26,000 falls in the elderly, reduced hospital admissions for patients with renal impairment, and prescribing interventions in relation to conditions such as acute kidney injury.

Sustainable travel planning needs a secure ironworks solution



At a time when councils are being encouraged to focus on sustainable travel improvements to encourage cycling and walking for health and environmental benefit, it is important to ensure that street ironworks are level to prevent hazards for pedestrians and cyclists. Unsecure or uneven drainage or other ironworks on the highway, footway or cycleway are a huge obstacle for cyclists and can cause serious wheel damage or personal injury.

National campaigns are being run encouraging people to cycle or walk during the Covid-19 pandemic as well as supporting ambitions for Net Zero travel. States of 'Climate Emergency' have been declared by many local authorities across the UK to encourage local support for green initiatives, with efforts stepped up, like those in Suffolk targeting families to adopt a Park & Stride, Walk or Scoot to school challenge. The need to be carbon neutral in line with the widespread adoption of electric vehicle use in 2030 as part of the Government's Road to Zero strategy means that the highway network needs to be fit for the need of sustainable travel.

Where street ironwork is

concerned, a tried and tested system exists designed to specifically seat ironwork at the correct level needs to be widely adopted to keep ironworks stable as a permanent solution, without fear of movement. This strong and stable solution needs to resist extreme weather conditions and last many years without requiring further attention – a product that is by its very nature is sustainable by standing the test of time for generations to come.

Securing ironworks using SHIMPAC® Systems is a quick, easy, cost effective and ultimately simple solution. With a range of products specifically designed for the task at hand, these products ensure that ironwork installations remain strong and secure. The principle of "right first time" cuts out costly repairs and remedial work by investing in the right materials and their correct use. With cost and performance dominating life these days, this approach delivers immediate and direct savings to both the contractor and council; furthermore the speed and ease of installation cuts the use of traffic lights in most cases and limits traffic disruption to an absolute minimum. Indirect savings also flow automatically through improved safety and environmental costs, and of fewer potential damage claims by highway

users for accident or injury.

With a "tailor on site" approach, SHIMPAC® Systems provides a flexible cost effective and sustainable method of carrying out installations and repairs to defects in ironwork installations. Their products have been carefully pioneered and are difficult to beat for speed, simplicity, low cost, ease of use and ability to be sized on site with millimetre precision. They can be utilised by local authorities, water companies, asphalt companies and civil engineering contractors as the product is so versatile.

All products in the SHIMPAC® product range are quick and easy to install, can be cut to length on site without the need for specialist tools and are compatible with fast setting mortar. The products come in various thicknesses, allowing the contractor to build up the area beneath the frame to achieve the correct level; in extreme cases it can even be built up to form a much thicker laminated layer to bind the chamber top. Designed specifically to secure the chamber top and provide a platform to bed any ironwork, the product range has a proven track record of withstanding the heaviest of punishment from intense traffic of all sorts, including high tonnage haulage vehicles, in

the most demanding of weather conditions from floods to snow.

The term 'right first time, on time' should become a mantra for the industry as there are products on the market that are provide a tried and tested solution to an ever-growing problem and do go a long way to prevent street ironwork installations failing due to movement around the ironwork housing.

All road users need a level surface, but cyclists and pedestrians are particular road user groups who need to be even assured that the route they wish to travel is free of hazards. By securing ironworks with SHIMPAC® Systems, as standard practice local authorities will be fulfilling their responsibility, effectively seating ironworks that can stand the weight of traffic and extreme weather for the long-term benefit of sustainable travel."

To find out more about SHIMPAC® Systems and its dedicated product range for all types of ironwork installation visit the company website at www.shimpac.com or contact Barry Andrews, Manager at SHIMPAC® Systems on **07808 646299** or e-mail: bandrews@shimpac.com.



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London Boroughs of Wandsworth and Richmond upon Thames upgrade Videalert CCTV enforcement platform



The shared parking service for the London Boroughs of Wandsworth and Richmond upon Thames is expanding its usage of Videalert's unattended rapidly deployable CCTV systems. The cameras, used to enforce a wide range of bus lane and moving traffic applications, ensure that roads are safe for motorists and pedestrians, reduce pollution and protect the parking needs of residents, businesses and visitors to both boroughs.

savings. The Videalert platform allows additional camera assets and enforcement applications to be cost effectively added, offers the flexibility to capture multiple contraventions alongside important data and provides a future-proofed investment for civil traffic enforcement."

As part of this project, Richmond is transitioning to Videalert's fully hosted platform which is already used by Wandsworth. The configuration from the council's existing on-premise server was replicated on

its Rapidly Deployable Server (RDS). The SIM cards within all existing RDS units are being upgraded from 3G to 4G. This will deliver a significant performance improvement across the camera estate in terms of speed and reliability of data transfer to the hosted platform.

Andrea Jones, Director of Strategic Accounts at Marston Holdings added: "We have been working with Richmond and Wandsworth Councils for many years and we are privileged and excited to be continuing our

Enforcement, Clean Air and Low Emission Zones."

Videalert is part of Marston Holdings, the UK's largest transportation and enforcement services group. It is also one of the UK's leading suppliers of intelligent traffic management and enforcement solutions. Videalert is the only company able to provide its own suite of attended, unattended, and mobile CCTV enforcement solutions using the same intelligent digital video software platform. This supports the widest range of traffic



According to Nick O'Donnell, Assistant Director for Traffic and Engineering for Richmond and Wandsworth Councils: "As a shared parking service, our focus is to synchronise and consolidate resources, systems and best practice to improve operational efficiency and achieve cost

the hosted platform in advance of the switch over to minimise disruption to ongoing review activities and outstation cameras.

Videalert is also converting camera locations that currently connect to the council's local area network to a wide area network configuration using

relationship. We are looking forward to collaborating on projects in support of the Councils future ambitions and further advance the Videalert hosted enforcement solution as key component of Marston Holdings' design, build and enforce solutions for Civil Parking

management and enforcement applications as well as clean air and low emission zones using the same infrastructure. For further information, please visit www.marstonholdings.co.uk/videalert

New and improved Toro mower for greater productivity

Toro's latest UK launch is the LT2240 cylinder mower, a new and improved version of the popular CT2240.

The CT2240, as a commercial triplex mower, had to satisfy a far wider brief than a dedicated golf or sports turf machine, it needed to meet hugely varied end user needs. From local authorities, large institutions and contractors through to estate owners, schools and landscapers, the CT2240 could be relied upon to mow everything from litter strewn roadside verges, amenity and parkland through to managing golf roughs and keeping winter sports turf in check.

The LT2240 is no different in that respect, but for that fact that it is tougher and more powerful

than its predecessor, yet still compact and light enough to enable access to the most confined environments.

At 214kg lighter than the next in the range – the LT3340 – it's even more suited for transportation between sites, while the 195mm narrower transport width brings increased site accessibility. And thanks to the reduction in weight, fuel consumption is 41 percent lower. These improvements bring big differences when it comes to ease of use, productivity and operational costs.

In addition to that, the redesign includes an engine adjustment to

bring it below 19kW meaning it does not need a Diesel Particulate Filter. This simple adjustment keeps the purchase price lower and with the option of up grading from eight to 10 inch cutting units, ensures its performance remains high.

Extremely bright and designed to last the life of the mower, the full LED lighting kit with brake lights on the LT2240 means road use isn't a problem throughout the year. There's also an optimised hydraulic system, independent cutting units, an intuitive infocentre and full-folding ROPS.



Toro's latest UK launch is the LT2240 cylinder mower, a new and improved version of the popular CT2240.

Milton Keynes University Hospital first to embed CCube Solutions' EDRM within Cerner Millennium boosting clinical efficiency and patient safety

CCube Solutions announces today that Milton Keynes University Hospital NHS Foundation Trust has successfully completed a complex project to fully integrate and embed its EDRM system – which contains over 80 million scanned legacy patient records - within Cerner's Millennium EPR.



This is the first time this has been done in the UK and allows around 3,800 staff immediate access to digital patient notes contained in the CCube EDRM – but viewed from within Millennium - without them having to log in and out of the two systems inputting their username and password or any medical record numbers.

Clinicians now just press an EDRM tab added within the Millennium menu and a viewer immediately displays the patient's record from the CCube system. Easy and quick to then navigate, all the digital notes of an individual are displayed in folders on screen covering appointment letters, correspondence and the results of clinical trials.

It is the 'in context' aspect of

this workflow project which is of significance. Craig York, Milton Keynes University Hospital's chief technology officer, explains, "We don't require clinicians to open up a new Internet Explorer window to do this which is another way the integration could have been done. But they'd then have multiple screens open and it could become distracting and confusing for staff about which patient file they're actually in which we obviously didn't want."

Milton Keynes University Hospital's internal IT team undertook the project working in close collaboration with software developers at CCube Solutions.

York adds, "Another good feature is that when a clinician then selects a new patient, the

system automatically refreshes and shows the new person's historical notes when the EDRM tab is pressed in Millennium."

The integration of the two system therefore saves valuable time for busy clinicians. This is key as the number of patients treated at Milton Keynes University Hospital is substantial. In 2020/2021, there were 313,363 outpatient attendances, 22,208 non-elective admissions and 73,397 emergency department attendances.

Debbie Phillips, Milton Keynes University Hospital's CCIO and consultant surgeon says, "The importance of opportunities to save clinical time within a digital system can't be underestimated given the number of patients we

have to treat."

A long track record of success using digital records

Milton Keynes University Hospital started its digital journey with CCube Solutions' EDRM over 10 years ago. For many years, it was at the centre of how scanned patient records were kept at the hospital. It is also used for creating and storing all typed outpatient letters meaning that EDRM is still a key element of the Trust's electronic patient record.

As Cerner Millennium – branded as eCARE at the hospital – has grown in use since its installation, the number of paper records that need to be scanned into CCube EDRM has reduced significantly.

Since May 2018, mostly adult patient records are in Cerner, and from September 2021, patients in paediatrics, intensive care units and visiting theatres will all have their information input directly into it.

Today, EDRM runs in a secure Microsoft Azure cloud environment which reflects the hospital's digital cloud first strategy – digital at the heart of everything and cloud where possible given the agility, scalability and flexibility it offers.

Vijay Magon, CCube Solutions' managing director, says, "We are particularly pleased with The Trust's move to digital cloud and adoption of our hosted EDRM. It's definitely a way forward in the NHS given the maturity and

security of cloud offerings."

Sharing Millennium EPR knowledge and experience with the wider NHS

York adds, "We would be very happy to provide input and information to other NHS organisations who are considering using both CCube EDRM and Cerner Millennium and are considering integrating both. They can leverage the lessons we've learnt about how to successfully do it."

The integration of CCube EDRM and Cerner Millennium is crucial given both systems are used extensively day to day.

York explains, "It's important for us to have a secure and reliable

records system where there's no room for clinical staff to get into patient safety issues. The IT team has once again shown its ability to ensure digital transformation is driving clear and demonstrable benefits and efficiencies for staff and patients."

Magon concludes, "NHS organisations have adopted different strategies when it comes to deploying systems. Some

have a big all-encompassing EPR whereas others have combined best of breed applications together. Milton Keynes Hospital has gone down the EPR route but then worked hard to integrate our EDRM so that all its patient records are in one place and easy to access. That's possible to do given our software uses open APIs and we're happy to work with Trusts to facilitate the work."



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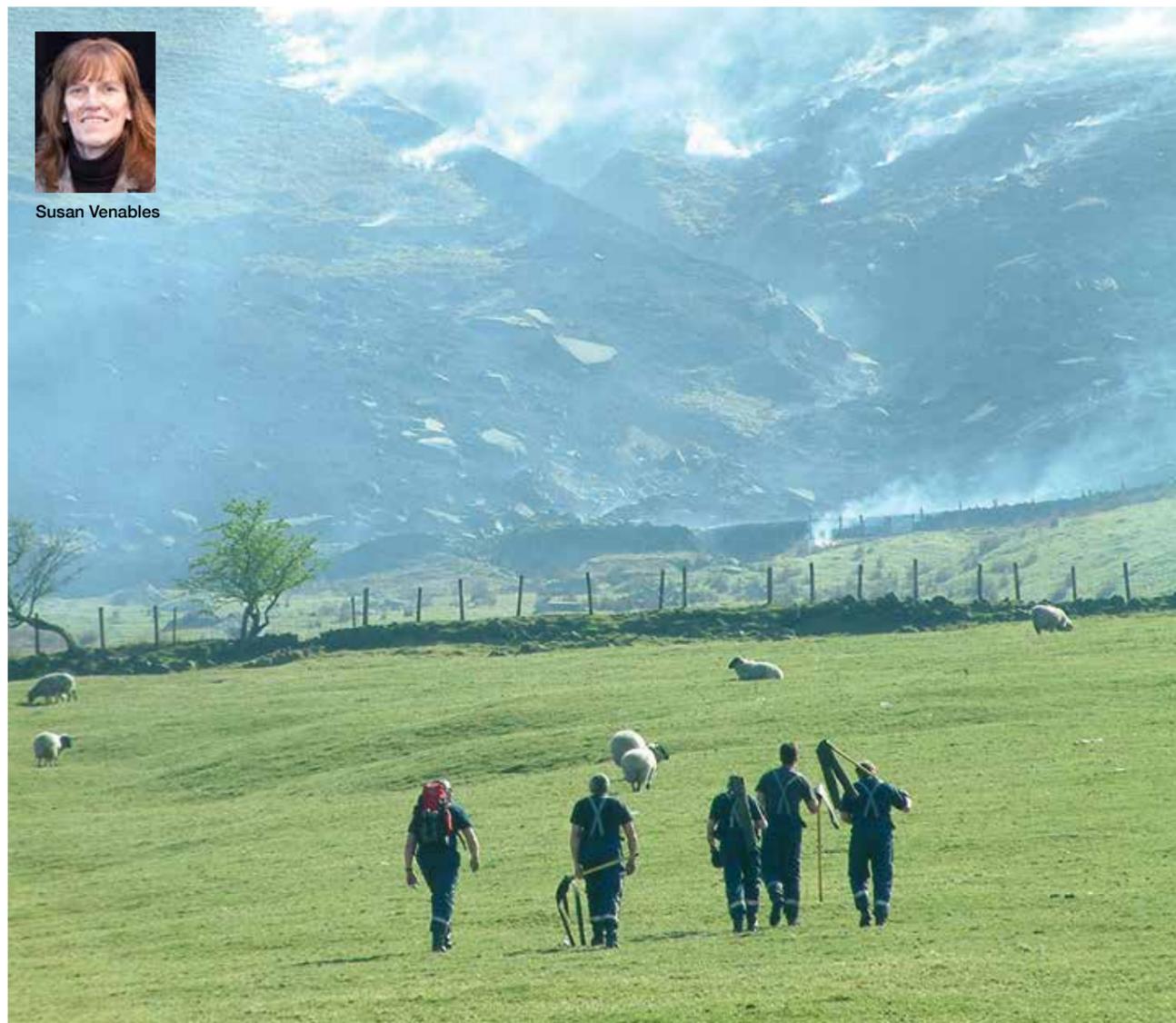


Cop26 shows it's time for health tech to act on climate change

The NHS has already made a commitment to become the first net zero health and care system in the world. It's time for digital health vendors to think about their role – and to be ready to talk about how they are tackling global heating, says Susan Venables, founder and client services director at Highland Marketing.



Susan Venables



Living in the highlands of Scotland, it's been impossible to miss the build up to Cop26. Glasgow is just an hour and a half away, and it has been preparing for the UN Climate Change Conference of the Parties for months.

Over the weekend, the news has been dominated by the arrival of the ministers who are supposed to agree the next steps on implementing the Paris Agreement and the pressure groups that are seeking to influence them.

For the next two weeks, Glasgow will be a riot of international debate, protest, and trade fair as the world looks on and asks the big question: it is going to be possible to deliver Paris and limit global warming to below 2 and preferably 1.5

degrees Celsius, in comparison with pre-industrial levels?

Climate change and the NHS

It's a big challenge, and one that matters to the NHS. Partly, that's because it could see

a big increase in demand if temperatures continue to rise. Public Health England reckons 2,500 people died in last year's heatwave alone.

Partly, it's because the health service itself accounts for 4-7% of the UK's greenhouse gas emissions, depending on whether you look at the carbon generated by its day-to-day operations or the many things associated with them, from food to patient travel.

The NHS is aware of this. In June 2019, Newcastle upon Tyne Hospitals NHS Foundation Trust became the first provider to declare a climate emergency. Since then, others have followed suit, including the mega-trust in Manchester and big name-hospitals in London.

NHS England has also picked up the baton. In October last year, its former chief executive, Sir Simon (now Lord) Stevens issued a report urging the NHS to become "the world's first carbon net zero national health system" by 2040. That's in less than twenty years.

Procurement will drive change, ready or not

I think health tech vendors need to sit up and take note of all this. Climate change is on the government and the NHS policy agenda. It's already flying with influential trusts; and all NHS trusts will have to have a green plan by the end of the year.

The climate and health agenda will get another boost when England's integrated care systems start work in April, because they have a population health remit and they will be working with local authorities that already have to consider the economic and social impact of their work.

Plus, when you look at the crowds gathering for Cop26, or the audience for net zero sessions at health events, it's obvious that the climate and health emergency engages a younger, more diverse audience than most government, health or even digital issues do.

That means that health tech vendors need a good story to tell. In the short term, if you have a well-grounded, well-evidenced

message, you are going to have a valuable differentiator in the market, and one that will resonate with a new and different audience for what you have to offer.

In the medium to long-term, having that message is going to be essential to protect your reputation and to continue to work with the NHS. From April 2022, every NHS tender will have a 10% net zero and social value weighting.

From April 2023, all NHS tenders worth more than £5 million will require bidders to have published a carbon reduction plan, just to be considered. After that, the technical and procurement requirements on the NHS England roadmap only get tougher...

Tips for getting your climate message out

I don't claim to be an expert on how health tech suppliers can demonstrate their contribution to keeping people well in a warming world, or on how they can calculate their contribution to the NHS carbon footprint, or their own carbon footprint.

The Highland Marketing advisory board is holding a special meeting towards the end of Cop26 to discuss these issues with expert input from David Newell, the head of health at GEMS. But, as a head's up: this is not about reducing a few travel miles or planting a few trees!

There are some gnarly things to get into, from thinking about how your data centre is powered, to working out how to provide support in a world where jumping on a plane is no longer an option, to examining the waste and working conditions in your supply chain.

Where I can claim to be an expert is in thinking through how companies need to present themselves to the health and care sector and how make sure that influencers and customers receive that information in the most effective way possible.

So, as a starting point, here are some basic tips for suppliers that want to start thinking about how they can build net zero into their marketing and public relations:

- Make sure this is on your agenda. Look at the NHS England plan and its subsequent presentations, think about what is being asked of health tech suppliers, and what positive impacts that will have on your business.
- Collect evidence. If you are engaged in a project that has a measurable impact on addressing the health impacts of climate change or reducing the carbon footprint of the NHS, make sure that you are capturing that information.

The moment is now

Cop26 has really focused attention on climate heating. Hearing about the science and seeing the passion of the many young people who are pouring into Glasgow has made me realise that now is the moment for all of us to start thinking about how we can take action.

I want to be completely clear that I am not suggesting to health tech vendors that this is a great bandwagon to jump on or that they should have a friendly green message. Suppliers need



- Share success. If you've done a great piece of work and you can prove it, a compelling press release or case study will raise your profile and demonstrate your credentials to potential customers and their increasingly engaged, increasingly savvy end-users.
- Join the conversation. Cop26 is capturing headlines and NHS net zero plan is getting attention, but there has been relatively little commentary on the role of health tech. So, there's an opportunity to shape the agenda through blogs, opinion pieces, podcasts and social content.
- Prep for media opportunities. Both the mainstream media and the specialist health and tech press is starting to write about net zero. A well-briefed spokesperson ready to engage at short notice could secure you national press coverage that doesn't come along all that often.

to take a good, hard look at the carbon impact of their activities and to make a start on a plan for reducing that.

The other reason that now is the moment is that NHS England has published one of the most ambitious plans in the world for a net zero health and care system and is creating technical and procurement strategies to deliver on it. Companies can seek to influence those plans by showing the change they are making; or get caught up in change that is happening anyway.

Here at Highland Marketing, we always say we are looking for 'health tech to shout about'. Increasingly, a commitment to net zero and social responsibility is going to be one of the things that health tech vendors are going to need to shout about; and that the NHS and its users will be expecting to hear.

Bristow & Sutor win industry award for Webio partnership

The Midlands-based enforcement specialist was nominated for three categories at the Credit & Collections Technology Awards, held at the Midland Hotel in Manchester on Thursday 4th November. Alongside technology partners Webio, Bristow & Sutor were victorious in the Digital Business Transformation category and were shortlisted for the Innovation in Collections & Recoveries and Best Use of Technology awards.



The Credit & Collections Technology Awards recognise excellence and innovation in the UK credit and collections industry. These awards celebrate solutions and innovations in lending, credit and collections through a range of categories related to technological needs and support.

Bristow & Sutor has over 42 years of experience in the collection of local council tax, non-domestic rates and unpaid Penalty Charge Notices (PCNs). The business partnered with Webio last year to implement WhatsApp Business API as an inbound channel for people in problem debt, providing more opportunities for customers to reach out and find a resolution. Webio uses the power of

conversation AI to automate and blend chatbot and live agent-customer conversations across a multitude of messaging channels. Conversation threads capture chat history and remain open 24 hours a day, which improves the quality of responses and ensures key information is logged and accessible whenever someone chooses to engage. The enforcement firm predicted that many customers would feel more comfortable discussing their circumstances on message-based platforms as this removes any embarrassment associated with directly speaking about debt. This would also aim to be a useful tool for overcoming barriers such as anxiety or

vulnerability. It was anticipated that allowing customers to instigate conversations and questions would have positive outcomes, especially on channels where debtors already feel relaxed, comfortable and safe. Since adopting this updated technological approach, engagement from customers has grown to over 160,000 messages every month. Due to this success on WhatsApp, Facebook Messenger has recently been added to the Bristow & Sutor Webio platform as well, with the same chatbot and automation flows applied. Emma Watson, Head of External Communication at Bristow & Sutor, said, "Our first aim is to

give customers relevant answers to queries on topics including balance confirmations, payment dates, and complaints in an efficient way and on platforms they know and feel comfortable using. 78% of messages received over the past year did not require human intervention to be resolved and consequently, Bristow & Sutor agents can now handle three times as many cases compared to responding via standard web chat. We are incredibly proud of the results we have seen since partnering with Webio and we are delighted to both receive this award and recognition from our peers."

Supercharging a new wave of start-ups

We have partnered with the UK government to seed the Clean Growth Fund, which aims to pioneer the next generation of innovative, scalable, low-carbon technologies.

Now, the Strathclyde Pension Fund plans to inject £20 million, further boosting the UK's clean-tech companies.



'We decided it was time for CCLA to invest in the very best early-stage technologies to contribute towards the UK's net-zero objective. Through the Clean Growth Fund, we look forward to supporting these exciting young companies aiming to reduce carbon emissions.'

James Bevan
Chief Investment Officer CCLA

www.ccla.co.uk
www.cleangrowthfund.com

The Strathclyde Pension Fund is one of the two largest local government pension schemes in the UK. CCLA Investment Management Limited is authorised and regulated by the Financial Conduct Authority.

CCLA
GOOD INVESTMENT

Pioneering project using drones and data to tackle litter in Bournemouth shows “game-changing” results

- 75% reduction of all litter surrounding data-driven placements of Hubbub interventions
- “Councils need to transform the way they communicate about litter” says environmental charity



The most scientifically robust litter survey ever undertaken in the UK today reveals groundbreaking results set to impact how litter is tackled in the future.

Funded by McDonald's, scientists from Ellipsis Earth used drone technology and AI to create detailed litter maps, identify hot spots and build an understanding of how litter is travelling across Bournemouth, Christchurch and Poole in March and May this year.

The intelligence gathered from the drone data was then used to inform the placement of positive litter-busting interventions which made the area's bins more engaging and noticeable such as glow in the dark bins and voting bins where people can vote with their rubbish.

These were placed in key hotspots and thanks to funding from McDonald's and its suppliers, the final of the three cutting-edge surveys took place in August to measure the impact of the interventions and revealed that:

- The east side of Bournemouth Pier (where multiple interventions were placed) saw a reduction in litter of 79%. The west side (where

no interventions were placed) had zero reduction

- Glow in the dark bins reduced the number of glass bottles and aluminium cans littered by 88%
- Large brightly coloured bins helped reduce litter in Bournemouth Lower Gardens by 89% when they were brought in to supplement existing small closed bins which had previously been the worst performing bins in the region
- Ballot bins attached to lampposts (where people answer a question by depositing their cigarette end) placed in targeted locations showed an average reduction of 73% of cigarette butt litter
- All other existing council bins across Bournemouth and Poole showed no decrease in litter
- In Christchurch and in all the other beaches in the area where no interventions were put in place, there was also no decrease.

Interestingly the data showed that where negative and accusatory messaging was used, which is an approach taken by many local authorities, there was a 10% increase in litter in areas near this signage, adding evidence to the argument that negative

messaging doesn't prompt positive behaviour. Hubbub is urging councils to consider this evidence and to transform the way they communicate.

Trewin Restorick CEO and co-founder of Hubbub said: “We're blown away by the results of this project. This is game changing for the way brands, the food and hospitality industry and local authorities across the country tackle litter. The results are conclusive – the key to reducing litter is to get the localised data and use positive and playful messaging. Traditional methods don't work. Negative messaging doesn't work. In fact, the results suggest this can even increase littering. We are looking to partner with progressive councils in the future to help them transform how they communicate and really look forward to seeing what can be achieved in other areas of the UK.”

Helen McFarlane, Senior Sustainability Consultant for McDonald's, said: “McDonald's is committed to supporting innovative solutions that help prevent litter. We're proud to have been part of this ground-breaking trial, and we're delighted to see that it has had such a positive impact in Bournemouth. It's fantastic to see how we can use big data to make small changes that make it easier for us all to do the right thing for the planet.”

Local McDonalds franchise Operations Manager Wesley Roshier said “We have seen some great success in reducing litter in the Bournemouth and Boscombe areas since partnering with Hubbub to tackle this issue together. We used the detailed

data highlighting litter hotspots near our stores to help us to target our resources better. This now means that we are effectively picking up more litter in the same amount of time than we were a few months ago when we did not have this data to hand.”

Ellie Mackay CEO and founder of Ellipsis Earth said: “We are delighted to be able to provide this robust data on such a large scale to evaluate the success of Hubbub's innovative and creative interventions, and to demonstrate the power of data-driven campaigns. Our aim is to help all stakeholders - brands, campaigners and councils alike - to maximise the impacts of their efforts so that every penny and every hour spent on improving waste management is spent intelligently. The results of this campaign clearly demonstrate the importance of fully informed decision-making and we hope to inspire other councils to step up to the challenge and join the data-driven litter revolution.”

McDonald's suppliers Britvic, Seda and Huhtamaki have also funded the project.

Organisations interested in finding out more about the project can email: hello@hubbub.org.uk



The Pandora Papers highlight the importance of watchlists as part of KYC and AML efforts

By Barley Laing, the UK Managing Director at Melissa

The Pandora Papers have focused attention on the sometimes questionable and corrupt practises of the politically connected and super wealthy.

They highlight how important it is for the public sector to have access to international sanctions lists or watchlists from governments and regulators of persons who are prohibited from certain activities and industries as part of their know your customer (KYC) and anti-money laundering (AML) checks. A key part of this is obtaining data on politically exposed persons (PEPs).

In the UK, organisations have a legal requirement to undertake enhanced checks of both domestic and foreign PEPs. Doing so helps public bodies to avoid the possibility of hefty fines and brand damage resulting from the negative publicity associated with having someone already known to the authorities fraudulently claiming benefits or other services.

It's not easy to identify PEPs due to the lack of a universally agreed definition of what constitutes one. The Financial Action Taskforce (FATF) defines a PEP as ‘an individual who is or has been entrusted with a prominent public function’. They are typically heads of state, government ministers, MPs, senior members of the judiciary, those on the boards of state-owned companies and central banks, and senior civil servants.

It's important to realise it's not enough to identify PEPs, as their relatives or close associates (RCAs) may also be involved in abetting possible fraudulent behaviour, so they must be screened for too.

There are several best

practices for sourcing watchlists that contain PEPs and their RCAs:

• Obtain data from trusted global sources

To effectively screen watchlists use an automated tool that collects and synthesises data from a wide range of trusted sources worldwide, such as government, regulator and credit agency. One that also continually scans for updates. It will significantly streamline the screening process and ensure those with access to it are constantly updated on any changes to a user's status.

• Undertake adverse media checks

To remain up to date on any new information on the status of an existing PEP who maybe using your services, augment the standard PEP screening process with adverse media and negative news checks. Such a tool scans the global news media and sources the names mentioned in the likes of the Pandora Papers, as well as news on those with new sanctions against them and where there's legal cases pending.

• Take a risk-based approach to watchlist screening

With budgets stretched it's important to take a risk-based approach to watchlist screening, particularly with PEPs and RCAs. Investment should be focused on implementing enhanced

due diligence measures for high-ranking PEPs and their RCAs, including those in territories where there's a greater prevalence of corruption.

• Continue to evaluate risk when a PEP leaves office

‘Once a PEP, always a PEP’. It's a good attitude to have. While someone who has departed the political arena may not pose the same level of risk they once did, they still may continue to have some risk associated with them. Once a PEP leaves office, consider risk factors such as their time in the post, extent to which they are politically connected, their continuing degree of influence and their country's level on a corruption index.

• Access an automated solution as part of a wider automated AML activity

An automated solution that identifies those on disparate watchlists, including PEPs and RCAs, in real time, works well as part of a more comprehensive automated approach to KYC and AML. Use electronic identity verification (eIDV) that can cross-check – in real time – the details provided by the user against reputable data streams to ensure they are who they say they are. Also, when onboarding, document scanning with optical character recognition (OCR) and machine readable zone (MRZ) technology should be used to enable public bodies to immediately determine the authenticity of the ID documents

provided online.

The Pandora Papers underline why public bodies must obtain a comprehensive list which has access to high-quality watchlists, in particular PEPs, from governments and regulators worldwide – one that also continually scans for updates. The list should also have automated functionality so it can be easily used in conjunction with automated eIDV and document scanning technology for an accurate, fast, and cost-effective KYC and AML process.

For more information about Melissa and how our ID and document verification services can help you prevent fraud please visit: www.melissa.com/uk, email: barley.laing@melissa.com or call: **020 7718 0070**.

Barley Laing





Pressure on for safe cleaning

By John Jones, President of the Water Jetting Association

An experienced pressure washing operative was using a steam pressure washer to clear a frozen roadside culvert. As he pulled the hose from the pipe he lost control of it and the pressure washer jet cut through his boot, filling it with 110°C water at 3,000 psi, travelling at 400 miles per hour.

The incident lasted less than three seconds. But he suffered 4th degree burns. Skin and tissue was torn from the bone. After emergency surgery he underwent multiple additional surgeries as continuing efforts were made to rebuild his foot.

Hospital treatment

This incident is just one of many

pressure washing injuries. Like the dockyard operative who slipped due to the unexpected power of a water jet, allowing the nozzle to swipe across his supervisor, lacerating his upper thigh. Or the mother who left a pressure washer in the garden for a moment and heard screams as one of her children used it to spray water into her other son's mouth. Both cases resulted in urgent hospital treatment.

A big problem is that pressure washing has become so commonplace.

People who operate pressure washers at home in shorts and flipflops to clean cars and drives do not appreciate the risks they are taking when pressures can reach up to 2,600 psi (180 bar).

Code of practice

The Water Jetting Association (WJA) is taking steps to address this, with the creation of a new Pressure Washing Code of Practice. This lays out, in plain terms, the steps that need to be taken to optimise the safe use of water jetting equipment. It also explains why these steps are important and what needs to be done if something does go wrong.

The WJA is the UK's trade body for the water jetting industry. Our focus, since we were established in 1980, has been on promoting the safe use of high pressure and ultra-high pressure water jetting, with water pressures ranging up to 40,000 psi (2,750 bar).

We have developed two codes of practice for systems operating

at these pressures – the Blue Code for high pressure and ultra-high pressure water jetting, and the Red Code for water jetting used for drain and sewer cleaning.

Safety and productivity

The new pressure washing code will support safe and productive water jetting at lower pressures, introducing a new operational standard and health and safety support for companies and agencies that carry out pressure washing and who rely on its advantages.

The code of practice gives the WJA's definition of pressure washing, or power washing as it is also called. This is any jetting activity with a water pressure of up to 3,000 psi, or 207 bar (20.7

MPa).

This range of water pressure is used to clean brickwork, remove graffiti, blast chewing gum from paths and airport concourses, clean mud from the carriageway during highway repairs and construction, and many other tasks that would be too arduous and costly using other cleaning systems.

In all these tasks, without a clear operational framework that a code of practice provides, there is opportunity for field teams to improvise and develop both unsafe and suboptimal practices. It is the WJA's view that, with water jetting, safety and productivity go hand in hand.

Water jetting injuries

As with our other two codes, safety is at the heart of the pressure washing code of practice. This is, in part, due to the unique risks involved.

There are three main ways water jetting systems cause serious injury or death: being struck by an uncontrolled hose or jetting nozzle; suffering a laceration that causes a massive bleed; or a fluid injection injury, caused by the water jet puncturing

the skin and entering underlying tissue.

What is commonly not understood is that a fluid injection injury can be caused by a water jet with a pressure as low as 100 psi (7 bar), which is startlingly low.

There are two other big problems with fluid injection injuries.

Firstly, it is not just water that can get into the body. The water jet can carry other particles and fluids with it, including dirt, bacteria, oils and grease. The jet can be so powerful, it can enter a forearm, for example, strike the bone and then be diverted up to the shoulder, causing catastrophic tissue damage and taking these pollutants with it.

Secondly, the injection point can be so small, that the injured person, their colleagues, and then medical personnel often do not realise the seriousness of the injury.

This can result in an injured person not receiving the urgent and extensive treatment they need, causing long-term problems such as secondary infections. In the worst cases, this can result in the need for amputations or can result in fatalities.

The WJA's pressure washer code of practice will address these risks and detail the appropriate steps needed to mitigate them.

Skills training

It includes sections on training and competency, site and equipment set-up, and the different types of pressure washing pumps and equipment. This includes hot water systems which introduce additional risks, as shown above.

Also covered is equipment operation, use of personal protective equipment, managing the pressure washing team and how to respond to injuries (See: Best Medical Advice). There is detailed advice on risk assessment and a pre-start checklist, as well.

A key element is effective training. The WJA is the UK's main provider of water jetting training. This includes a City & Guilds accredited pressure washing course delivered by WJA-approved training providers and instructors. Lasting at least

five hours, it is designed to teach class-based and practical skills for safe and productive pressure washing.

Professional approach

The WJA is keen to promote this professional and knowledge-

Pressure washing is ideal for removing chewing gum



Hydrodemolition a key task at much higher jetting pressures



Contact

www.waterjetting.org.uk
info@waterjetting.org.uk
 0208 320 1090.

Best medical advice

Included in the new pressure washing code of practice are the WJA's new water jetting medical guidelines.

They were created following research into water jetting injuries commissioned by the WJA and carried out by a team of leading NHS trauma doctors.

The guidelines are in the form of an algorithm, giving clear step-by-step information about how to respond to water jetting injuries from the moment they occur through to post-emergency treatment therapies.

based approach to delivering pressure washing services. We welcome pressure washing contractors and organisations that carry out pressure washing in-house as WJA members. We also value the lead they take in promoting safety in their industry. They include TPC Brickwork Cleaning, in Southampton, Hampshire. Company owner Kris Jasinski, says: "We're a member of the WJA because we want to protect our operatives and everyone around us when we're pressure washing.

"Undertaking the WJA pressure washing training has made a big difference. I can see our safety has gone up a level. The advice the WJA gives is central to how we go about our work and to our business success. I have no doubt about that."

The Digital Healthcare Council reveals its plans for a digitally-enabled health ecosystem

For this Q&A, TeleTracking sat down with Graham Kendall, Director of the Digital Healthcare Council, to discuss the Council's thoughts on digital health innovators and its strategy to support NHS Trusts in meeting the challenges facing the healthcare sector as a result of the COVID-19 pandemic.

What is the Digital Healthcare Council and why was it set up?

The Digital Healthcare Council (DHC) was set up in 2017 to promote a greater understanding of digital healthcare and the essential role it plays in solving many of the challenges facing the NHS and the wider health sector.

Our members are industry leaders spanning the breadth of digital healthcare, delivering care directly to patients through a partnership model. Our collective vision is to create a digitally-enabled health ecosystem that works for both patients and

healthcare professionals. That means being a key part of the solution to the most profound challenges facing healthcare right now, including tackling the elective backlog, making the most of existing capacity, integrating care across different providers and widening access to care.

Ultimately, our collective mission is to transform patient care with the assistance of technology; keeping people healthier for longer, making the most of clinicians' expertise and saving money for the UK taxpayer. We also want to

influence the wider stakeholder community, including the Government on the benefits of a future-proofed, digitally-led, healthcare system.

What are the main challenges the DHC is looking to overcome?

Our health and social care system has evolved over many years. While many of the institutions and practices that have developed made sense in their original context, it leaves us with an infrastructure and approach that is often shaped around an analogue age. Its

processes and policies could be improved to become more efficient and deliver a better patient experience. While there are organisations looking at the role of technology within pockets of healthcare and others looking at how we can improve our healthcare system operationally, the Digital Healthcare Council's role is to identify how to bring the two together to create positive changes that translate into tangible outcomes.

It's about building insights and leveraging data to optimise every decision to get the best outcome possible. We have many

behavioural and institutional blocks to navigate as the NHS has an incredibly complex infrastructure. This includes winning the hearts and minds of the medical community while helping them adopt new ways of working. We also need to address more technical details. For example, the DHC is looking at how we can help improve the NHS' operational and procurement approaches to focus on solutions that deliver measurable and sustainable results for patients, staff and the sector at large. Our role is to get buy-in and create a positive case for change.

How has Covid-19 impacted the DHC's plans?

The pandemic has caused catastrophic disruption over the past 18 months and this has resulted in severe pressure on every aspect of our health service and the staff within it. We already have a record official waiting list that exceeds 5.8m people, and that doesn't include the hidden waiting list of up to 7.7m people who we would have expected to have joined the waiting list since the beginning of 2020 but for a variety of reasons have not been referred. These pressures, coupled with limited funding and a depleted workforce, have increased the urgency with which we need to meet our objectives. It has made us even more determined to find solutions that translate into tangible benefits.

Digital health solutions are essential to both fight this ongoing pandemic and to create a sustainable future. If we are to change how we provide care, we need to address the challenges that will accompany the development and implementation of new digital health solutions.

Although the public has been very supportive of the NHS in the wake of Covid, we have seen the development of an inaccurate and unhelpful narrative from some of the national media, for example, around remote consultation and triage. Listen to certain media outlets, and you'd imagine we're all harking back to a supposed golden age when a routine GP appointment meant taking half a day off work to sit in

an overcrowded waiting room full of coughs and sneezes.

By contrast, the evidence shows that time between booking and appointments has been shortened significantly as we've adopted digital triaging, and that, when given a choice of different channels, patients only choose traditional face-to-face appointments around 10% of the time. We absolutely have to get the balance right between face-to-face and remote care, and a key part of that is understanding that digital appointments, together with all the optimisation that underpins them, also frees capacity. We can then provide timely, face-to-face consultations, when and where they are needed, along with more rapid referrals into secondary care.

As the newest member of the Digital Healthcare Council, TeleTracking brings decades of working within the complex infrastructure of the NHS and international healthcare systems, how do you intend to put this knowledge to good use?

With over 1,200 clients, TeleTracking has worked with hospitals and health systems around the world to improve quality of care whilst generating savings for hospitals and health systems. They really understand the operational challenges facing hospitals, specifically around patient flow, workforce productivity and bed management. There have been over two million fewer elective admissions since 2020 than we would have expected, so to get the service back to pre-pandemic levels, proven solutions need to be put in place that address how hospitals can deliver the most efficient and effective care with current resources. TeleTracking's technology has the ability to move patients around a hospital efficiently and seamlessly by creating shared visibility to beds, resources and staff. This means that the patient is getting the right bed with the right resources and equipment and staff needed to deliver the most efficient and effective care.

TeleTracking's partnership with the DHC revolves around

understanding that the concept of 'lost bed time' means we can first identify lost capacity and then crucially develop the capability to provide a solution to actively convert lost capacity back into time to care. This is done by a real-time view of beds within a hospital and automating certain staff workflows and resources around the patient and bed.

Furthermore, the DHC was impressed by TeleTracking's concept of a centralised 'command centre.' Currently TeleTracking has four of these Centres across the United Kingdom, including The Royal Wolverhampton NHS Trust, Countess of Chester Hospital NHS Foundation Trust, Mid and South Essex NHS Foundation Trust and Maidstone and Tunbridge Wells NHS Trust. These centres of excellence allow decision makers to sit together in front of real-time data, enabling them to make informed decisions on patient flow and bed management across a hospital or health system. Similar to air traffic control at airports, this model has been adopted by over 100 hospitals and health systems across the US, UK and Canada and has proven critical to patient management and staff safety throughout the COVID pandemic.

The company's work with Maidstone and Tunbridge Wells NHS Trust (MTW) is a great example of how people, process and technology have come together to deliver measurable outcomes. MTW's Co-Ordination Centre now manages every element of patient flow through the hospital, reducing ED times by 110 hours a day; halving bed turnaround times from 150 minutes to 60 minutes on average and reducing the time it takes to move a patient from ED to a clean, ready bed from 1.5 hours to 27 minutes. You can imagine the tangible benefits this has delivered to the Trust's two hospital sites.

We certainly have a lot of work ahead of us and a major focus is to encourage the Government and hospital executives to consider the concept of 'lost bed time' as an operational metric rather than just focusing on ED times. This metric provides insight into a valuable commodity already available within the hospital that, with improved operational effectiveness, could be utilised almost immediately. That would really shine a spotlight on the issue and I believe would be a great start to addressing the patient backlog.



Graham Kendall

Vicki gets set to energise local network growth plans

Energy Assets Networks & Pipelines, a leader in final mile gas and electricity network adoption, ownership and management, has appointed a new Business Development Manager covering the north of England and Scotland.

Vicki Dunn



Said Vicki: "I'm really pleased to be joining EAN/P at such an exciting time in the company's development. It's an area of the energy market I find really interesting and with the national focus on increasing housing provision, there are lots of opportunities opening up.

"I've had many job roles in my career, but business development is something I really enjoy because it involves working alongside customers to overcome challenges to help them deliver their projects. I also think my experience working for ICPs will add value to our proposition."

Vicki is joining one of Britain's fastest growing and most innovative local network ownership and management businesses. In addition to providing a flexible approach to asset adoption, EAN/P has also invested heavily in in-house technical, legal and administrative expertise to support the work of contractors, housebuilders and industrial and commercial developers.

This includes the launch of the Milestone Legal Progress Tracker, the first online project administration and customer communication portal of its kind in the connections industry, enabling clients to see the status of their projects at a glance, at any time.

The company is also a leading player in the development of Britain's EV charging network, working alongside companies such as InstaVolt and MFG to help expand the country's charging capacity.

www.energyassetsnetworks.co.uk/

Vicki Dunn, from Tadcaster near York, joins EAN/P with strong industry experience, having previously worked for companies involved in utilities construction.

In her new role, Vicki will be developing new business relationships with independent

connection providers (ICPs) and working alongside existing EAN/P customers to help them optimise the asset value of their energy network construction projects, whether for residential housing or industrial and commercial developments.

SHIMPAC®: A sustainable solution to secure highway ironworks

With moves to be carbon neutral, meet Net Zero targets and reduce both energy and emissions, sustainable methods of construction are more important than ever before. SHIMPAC® Systems offers a sustainable long-lasting solution, securing highway ironworks to last - in a safe, efficient, and secure way.

SHIMPAC® supports sustainable travel

At a time when authorities are being encouraged to focus on sustainable travel improvements to encourage cycling and walking for health and environmental benefit, it is important to ensure that footway, cycleway and highway ironworks are level to prevent hazards for pedestrians and cyclists. SHIMPAC® Systems are fitted with millimetre precision to ensure that ironworks are kept secure without movement. One of the biggest hazards for cyclists are broken or uneven drainage channels at the side of the road – keep them secure by using SHIMPAC®.

SHIMPAC® takes the weight of heavy traffic

With ever-increasing vehicle movements and more occurrences of congestion at peak travel times in our towns and cities, plus larger and heavier lorries on our UK roads from 2022, highway ironworks need to be stronger than ever to manage the weight of heavier loads. SHIMPAC® has been engineered to last, able to withstand huge loads of 120 tonnes.

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The effect of global warming means excessively high temperatures, flash-flooding,

prolonged periods of cold and/or icy conditions, our highways need to withstand the ravages of UK weather. SHIMPAC® products will not deteriorate in extreme conditions, does not rot, staying strong and secure in the most testing conditions.

SHIMPAC® offers sustainable installation

Contractors using SHIMPAC® Systems advise that it is a better way to work, offering quicker installation, less hand/arm vibration or heavy manual handling (as no cutting bricks) with no specialist tools required. Plus, there is no wastage as any remaining 'cut offs' can be

used as the base layer for other locations requiring ironwork seating, which means less waste.

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Alternatively contact Barry Andrews, Manager at SHIMPAC® Systems on **07808 646299** or e-mail:

bandrews@shimpac.com

Peter Rieck and Johnny Jonas from Shimpac at the Highways UK.



The future of health and social care is being held back by a £2.2 billion uncomfortable truth



Local Government is suffering more from poor mental health than the NHS

Mental health is now the top reason Local Government employees take time off work according to FirstCare, the wellbeing and performance experts. The ICS Preparation Alert, which pulls insight from the UK's largest database of workplace absences, revealed that 25 percent of all lost working time in Local Government (from 1 January 2019 to 31 Aug 2021) was due to mental

health-related absences compared to 18 percent in the NHS. From April 2022, the NHS, local authorities, and other partners are coming together to coordinate services and to plan in a way that improves population health and reduces inequalities between different groups. These due-to-be-formed ICSs (Integrated Care Systems) are navigating towards the change

with an uncomfortable truth – a £2.2 billion mental health cost. Since the start of 2019, employees in Local Government and the NHS have taken more than 16.4m days off for mental health-related reasons, costing £2.2 billion.

Local Government more impacted by mental health issues than NHS

Local Government (January 2019 – August 2021)

Rank	Reason	Lost working time (days)	% of all lost working time	% of all spells of absence	Average duration (days)
1	Mental Health Issue	8.44m	25%	8%	21.75
2	Musculoskeletal	5.06m	15%	10%	10.06
3	Medical Infection (inc. confirmed cases of Covid)	3.32m	10%	11%	6.34
4	Non-Medical (inc. Covid self-isolation)	2.37m	7%	5%	9.30
5	Surgery	3.39m	10%	4%	19.51
6	Gastrointestinal	2.1m	6%	17%	2.49

- Mental health issues have been the Local Government sector's top reason for working time lost in 24 of the last 32 months, equating to 8.44m working days lost.
- The average duration of mental health-related absence is 37% lower in Local Government than it is in the NHS (21.75 days vs. 34.57 days respectively).
- Local Government has seen 68% more spells of mental health-related absence than the NHS since 2019 (around 388,000 vs. 231,000 respectively). Mental health issues account for eight percent of all spells of absence in Local Government compared to 5 percent in the NHS.

NHS Trusts (January 2019– August 2021)

Rank	Reason	Lost working time (days)	% of all lost working time	% of all spells of absence	Average duration (days)
1	Non-Medical (inc. Covid isolation)	8.23m	19%	18%	10.56
2	Mental Health Issue	7.97m	18%	5%	34.57
3	Musculoskeletal	5.72m	13%	9%	15.84
4	Medical Infection (inc. confirmed cases of Covid)	5.28m	12%	11%	11.23
5	Gastrointestinal	3.07m	7%	16%	4.59
6	Cough/Cold and Flu	2.83m	6%	14%	4.82
7	Surgery	2.25m	5%	2%	30.67

- During the pandemic, the NHS has lost most working time to non-medical reasons for staff absence, such as Covid self-isolation, care of a dependent, Test & Trace notifications, etc.
- Mental health issues account for only five percent of all spells of absence, but due to their average duration (34.57 days) they account for 18 percent of all lost working time.
- Time off for poor mental health is on average three times longer than for Covid-related absences (around 34.57 days, compared to nearly 11.23 days respectively).

Colm Byrne, Mental Health Nurse and former NHS Deputy Director of Workforce, said:

“For people living with multiple and long-term conditions, ICSs should deliver seamless services to those who need it most. However, the system is so large and complex that far closer collaboration between the different partners will be required to support staff, improve patient care and reduce health inequalities.”

The £2.2 billion uncomfortable truth that needs to be tackled

- From January – August 2021, mental

health-related absences in Local Government totaled an estimated £316 million.

- From January – August 2021, mental health-related absences in NHS Trusts totaled an estimated £243 million.
- The combined cost of mental health-related absences across both sectors was £704 million in 2019, £897 million in 2020 and £559 million in 2021, totaling £2.2 billion since 2019.

On September 23 – 24, 2021, hundreds of senior leaders from the public sector will meet in Manchester to discuss the introduction of ICSs and the future of health and social care.

Alun Baker, CEO of FirstCare comments: “The formation of ICSs is one of the biggest changes in health and social care in over 50 years. The vision is admirable, yet the practicalities of this unprecedented union are not fully understood. The operational structures, performance metrics and the way staff are managed are like chalk and cheese. To overcome the twin challenges of mental health and Covid, a joined-up way to care for the wellbeing of employees must be formed.”

Truespeed appoints James Lowther as CEO to spearhead next growth phase

Bath-based Truespeed has announced the appointment of James Lowther as CEO, with immediate effect. James succeeds former CEO Evan Wienburg. James's telecoms industry pedigree and experience in helping to build high-growth businesses make him the ideal candidate to lead the full fibre infrastructure provider and ISP's next phase of growth.

James brings over 16 years' experience in the telecoms sector, most recently as Group Chief Commercial Officer at mobile company Lebara, and previously as Chief Marketing Officer at Gigaclear. Prior to this, James spent four years in Sweden at the quad-play service provider Com Hem (now Tele2 Group) where he held the role of Director of Business to Consumer and led the consumer division through a

very successful period of growth. Before that, James spent six years at Virgin Media in various senior roles.

Clarke Osborne, Truespeed Chairman, said: “I would like to thank our outgoing CEO Evan Wienburg for his energy and passion since the firm's inception - and for building Truespeed into the thriving, award-winning, community-oriented business it is today. James is taking over the CEO reins at a pivotal time. We are embarking on our next major growth phase to bring ultrafast, ultra-reliable, full fibre broadband connectivity to hundreds of thousands of families and businesses in the South West. James's dynamism, leadership track record and breadth of experience will be invaluable as we move forward.”

James Lowther, Truespeed CEO, added: “I am delighted to join Truespeed as we ramp up the

next phase of our mission to roll out ultrafast, ultra-reliable broadband that will level up the South West. Truespeed has a great team in place and we will push hard on the throttle to accelerate our network build.”

James Lowther



Cyber security in the Public Sector: An increasingly lucrative target that needs Better Protection

By John Price, Head of Public Sector at Check Point Software UK&I

There's nothing quite like a global pandemic with legally enforceable lockdowns to expose a demographic's dependence on digital infrastructure. While the devastating SolarWinds breach in late 2020 made headlines around the world for its impact on corporations like Cisco and Microsoft and their thousands of customer organisations, the bad actors involved would have likely seen the private businesses impacted as collateral damage in pursuit of a much more lucrative target - the public sector.

The wheels of government have a reputation for turning slowly. Many governments, including the UK, are seen as overstretched, under-resourced in their response to potentially devastating cyber incidents. Take the WannaCry attack, for instance, which brought the NHS to a virtual standstill in 2017 because of unpatched and outdated software which took months to rectify. The government even had a £5.5 million deal in place with Microsoft to maintain support for the nearly two-decade-old Windows XP operating system long after it had fallen into obsolescence, which many would argue was an incident waiting to happen.

According to research from Check Point Software, there are 378 cyberattacks a week in the UK and government organisations have become the third most targeted sector by cyber criminals over the past six months, ahead of finance, banking, manufacturing and healthcare. Threats such as triple extortion ransomware and supply chain attacks are on the rise, with malware such as Trickbot, Dridex, Qbot and IcedID surfacing more

frequently, as outlined in Check Point's Cyber Attack Trends: 2021 Mid-Year Report.

Any hopes that lessons may have been learned from this breach have been dashed this year as the widely reported Microsoft Exchange hack continues to cause problems within the public sector. Despite the vulnerabilities being identified in January 2021, with patches circulating as early as March, more than 50% of MS Exchange servers in the UK remain vulnerable at the time of writing, including those on the British government's 'gov.uk' domain. The public sector is, regrettably, a relatively easy target, but is it a lucrative one? Why are we seeing an increased number of bad actors targeting the public sector as we navigate our way through a global pandemic? As is often the case when it comes to malicious cyber actors, it's a question of following the money.

What's your data worth?

Data has value. It can therefore be extorted or sold on for profit. If a group of bad actors were to steal thousands of people's credit card details by hacking into a private organisation such as a bank or online retailer, they'd fetch around £15 per record if auctioned off on the dark web. If, however, the same group were to attack an NHS trust and steal medical records, their potential profit would soar and net them more than £350 per record. And that's not even taking into account the amount they could extort from the targeted trusts themselves. This isn't helped by the fact that public sector organisations are often comprised of siloed data behemoths, so if a malicious actor is able to exploit a gap in their defences, the 'pay-outs' are often huge. As seen in the case of the

MS Exchange and WannaCry incidents outlined above, responses to breaches in the public sector are often incredibly slow and poorly orchestrated, giving cybercriminals an even larger time window in which to exploit their targets.

Think resourcing, not outsourcing

Unlike in the commercial world, public sector organisations aren't profit-driven and can't easily justify the increased IT spend as a mere preventative measure. A year after the WannaCry attack, the government agreed a £150 million deal with Microsoft to equip all NHS computers with the latest Windows 10 operating system and ensure that all security settings were up to date. This is all well and good, but it took a catastrophic breach that put individuals' medical records at risk to get budget approval. The public sector is, almost by definition, reactive instead of proactive when it comes to digital transformation. It's there to serve, not to profit, and this leaves it vulnerable by default.

Part of that vulnerability is no doubt due to loss of control through third-party outsourcing. On the face of it, the cyber capabilities of the public sector and its employees are stronger than some of these incidents might suggest. According to the government's annual report 'Cyber security skills in the UK labour market 2021', the public sector is actually surprisingly confident when it comes to performing advanced cyber security tasks. While a quarter of all businesses say they aren't confident when it comes to penetration testing, for instance, more than 80% of public sector organisations are more than confident in their

testing abilities. Similarly, 1 in 10 of all businesses say they lack confidence when it comes to user monitoring, but no public sector organisations report any such issue.

It's only when we read further into the report, we start to see the real problems emerge. A quarter of public sector organisations have just one staff member responsible for cybersecurity and the percentage of public sector organisations outsourcing basic security functions such as firewalls, user privileges and backing up data, for instance, far outweighs that of the private sector. More than 95% of all public sector organisations outsource their firewall configurations to a third party; more than 80% rely exclusively on third parties when it comes to incident response and recovery; and almost half (48%) even outsource the control of internal user admin rights which, unless they have a very close relationship with their third-party IT partner, could have devastating security repercussions. So while the public sector might be confident in its cyber capabilities, that confidence might be ill-placed.

Good money after bad

In case you haven't spotted it, the common theme here is a lack of internal resource and control. The technology is available, but only if the public sector is willing to continue putting up with the 'technology debt' it's accruing through its overdependence on outdated internal tech and external cybersecurity solutions. According to a recent cabinet office report, keeping outdated computers going is costing the government roughly £2.3 billion per year, which is almost the same as the US government's entire

cybersecurity budget for 2021.

With a threat landscape that's currently outpacing many private organisations' capabilities, governments need to start thinking very carefully about their cyber security budgets, how

much of their security solutions are outsourced, and how they can increase their risk posture in 2021 and beyond without continuing to throw good money after bad.

Check Point Software recently hosted a webinar entitled: "The

State of Cybersecurity: Public Sector 2021" with experts from the field of cyber security in the public sector. To access the webinar on demand visit: <https://www.brighttalk.com/webcast/16731/504417>

McCann selected as strategic partner for Smart Motorway Alliance

The Smart Motorway Alliance (SMA), created and operated by National Highways, has selected its roster of contractors and partners for the framework with Nottingham-based major infrastructure provider McCann chosen to work for the alliance across five packages of work.

The Smart Motorway Alliance contract was awarded in April 2021, with seven strategic partners selected to manage the framework on behalf of National Highways - including awarding works to appropriate contractors. These partners include Fluor, Jacobs, WSP, Balfour Beatty, Costain and BAM/Morgan Sindall joint venture.

Over a 10-year period, the alliance framework will be responsible for £4.5bn worth of projects across smart motorway infrastructure on behalf of the government, with work commencing in 2021.

McCann has been chosen to work for the alliance across five packages covering motorway communications, road lighting, direction drilling, traffic signs, permanent CCTV systems, radar masts, MIDAS Outstation and side fire radar, ramp metering and traffic counting. The company will be a Tier 1 contractor across four of the five packages it has successfully won - taking the lead on planning, budgeting and delivery. The allocation of projects to McCann is still to be determined but the value of works

is estimated to be in excess of £49m per annum.

News of working for the Smart Motorway Alliance aligns perfectly with the company's three year growth plan set out at the start of 2021, which sets the target of expanding the firm by £60m - £150m by 2024.

McCann's Strategic Highways Director Clive Leadbetter is thrilled with this latest piece of good news for the business and can only see the firm going from strength to strength as it continues to grow its expertise and work across a diverse portfolio of contracts and frameworks.

"Once again we're delighted to be strengthening our ties to key clients and the Smart Motorway Alliance is an exciting

new framework from National Highways which will deliver on key strategic objectives for the government in how we safely and efficiently maintain and upgrade our motorway network using the latest technologies."

"Coupled with our SDF wins, we are perfectly placed to achieve our ambitious growth targets in the coming years and show why McCann is a major player in the successful delivery of the country's infrastructure."

McCann's Managing Director John McCann is delighted to see the firm secure work across another high-profile framework with National Highways, and sees the SMA as a great initiative which will deliver the desired results for the nation's motorways.

"The Framework has been designed to encourage collaboration across our industry and we're really looking forward to partnering with a number of firms we're already well acquainted with such as Balfour Beatty, Costain and BAM/Morgan Sindall joint venture."

He adds, "We're proud to be delivering once again for National Highways and to have been selected to work for the Smart Motorway Alliance. Our team brings decades of highway and motorway expertise to the framework across multiple disciplines and our track record for safe and reliable delivery speaks for itself."



First-of-its-kind AI predicts tenants' rent debt up to six months before it happens

An innovative tech firm is using first-of-its-kind artificial intelligence (AI) to help housing associations predict when residents are likely to fall behind with their rent – up to six months in the future.

Pivigo's Rent Arrears Prediction AI platform means social landlords can reduce the number of tenants struggling with debt and drive down lost rental income needed to run services and build new homes.

By predicting arrears early, staff can focus on positive prevention and support for tenants – including the most vulnerable – rather than focusing solely on recovering missed payments.

According to the Chartered Institute of Housing's #ShineALight campaign launched in 2020, around one in three social housing tenants in rent arrears are experiencing mental health problems.

The Pivigo platform is the first of its kind in social housing to predict rent arrears up to six months before they happen.

With rent arrears for social housing reaching £1bn earlier this year, this new tech could save the sector quite a bit of money.

Alex Willard, CEO of Pivigo, said: "Our technology is giving social housing new-found abilities to see far over the horizon. We have trained our AI on tenancy data with multiple housing associations to develop an accurate and reliable model to predict future arrears and understand the likelihood of them becoming a long-term problem."

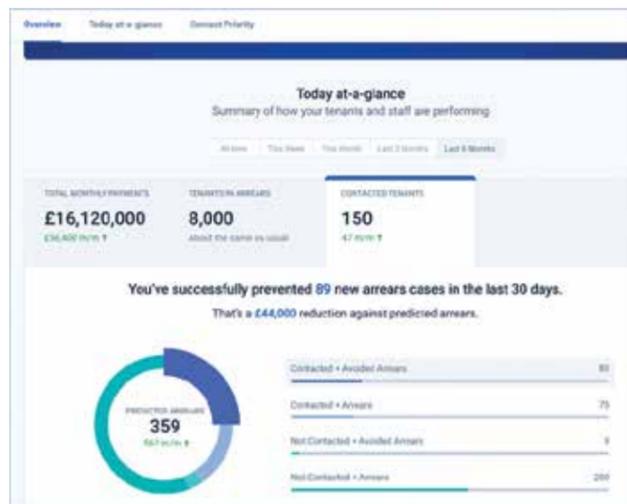
"We differentiate the high-risk cases from temporary ones, enabling social landlords to make better use of their resources to benefit both residents and the organisation."

Using AI to predict who is most at risk of falling into arrears means income and support teams can contact the right tenants at the right time so they can avoid the stress and anxiety of being in debt.

It comes at a time when housing providers have seen a rise in rent arrears as the Covid-19 pandemic has affected residents struggling with furlough, reduced working hours and redundancy.

Pivigo, based in Sheffield, build and manage AI Services for social housing. This approach means that social landlords need little in-house IT expertise to benefit from AI, as the platform is cloud-based, deployed in 8 weeks and can be connected to existing housing management systems.

Alex added: "We want to make the benefits of AI accessible across the entire social housing sector, regardless of whether the landlord is big, small, tech-advanced, or on a budget."



New crisis management communications tool launched by employee safety specialist

Technology-led employee safety specialists, Peoplesafe, has launched a new mass notification tool designed for instant communication with employees in a crisis. Peoplesafe Alert is a simple, intuitive app which allows organisations to send and track mass safety messages to thousands of employees simultaneously, overriding phones set to silent or do not disturb and, if necessary, using geofencing capabilities to only communicate with those in a certain location.



Designed to be used in any crisis situation, the Peoplesafe Alert tool can be operated in real time and messages cannot be edited or forwarded to protect the credibility of the organisation and guarantee that the information is current, correct and constantly controlled.

With its own dedicated platform, the app can sit on multiple devices and operating systems which guarantees that the priority messages will cut through any other conflicting or distracting messages at the time of an emergency.

Although UK based, the Peoplesafe Alert app is available in all countries, meaning that employees can be targeted by country if required. This also means that messages can reach

employees no matter where they are in the world when a crisis unfolds. When sending a communication, administrators have the ability to tailor the message to the recipient's native language.

The tool is fully compliant with BS 22301 and the encrypted service is delivered from ISO27001 certified data centres which guarantees that an organisation is meeting regulatory standards for business continuity.

Emergency situations where Peoplesafe Alert would come into play include; extreme environmental events such as flooding or an earthquake, cyber-attacks, network security, control and access issues (such as recently seen with the outage

of WhatsApp, Facebook and Instagram) and outbreaks of infectious diseases.

This marks an expansion for the technology company, which has previously focussed on lone worker safety and protection products and services. Peoplesafe CEO Naz Dossa said: "While the experience of steering employees through the COVID-19 pandemic is still fresh in everybody's mind, we need to look ahead and guarantee that business continuity will not be compromised in the face of any future emergencies."

"Technology has been absolutely crucial in keeping employees informed, safe and (in the most part), able to deliver their work. However, given that the pandemic was an unprecedented

situation, lessons have been learnt. Peoplesafe Alert's instant, precise mass notification abilities will enable an organisation to communicate effectively with all, or some of their employees depending on the emergency.

"As technology safety experts with many years' experience, we are in a prime position to assist our customers so that they can both take care of their employees in a crisis and maintain business continuity using next generation communications."

Peoplesafe Alert licenses can cost as little as £1 per user, per month, offering a scalable solution that can flex with the requirements of the organisation.

It's not if or when - It's now

Still need convincing that the EV revolution is on its way? You just need to look more closely...



Hiding in plain sight

As little as two years ago, the UK electric vehicle (EV) market consisted of just a few Nissan Leafs and Teslas. They were widely seen as a novelty that wouldn't meet the demands of most drivers, particularly given the limited number of public chargepoints on the streets. Yet, fast-forward to today, and the picture looks completely different, with the UK in the middle of a transition to EVs.

EVs are no longer limited to a handful of bespoke models, as almost every major manufacturer is bringing a model to market. Many are electric-only vehicles with unique design features. But if you look closely, there are also EVs sharing the same platform as internal combustion engine (ICE) vehicles. Prime examples include the Corsa E, Mini E and Kona – other than a green numberplate, they're practically indiscernible from their petrol-drinking twins. This phenomenon isn't just limited to private vehicles: delivery vans, taxis, public transport and work vehicles are also increasingly going electric, often in quite a subtle way.

Drivers are ready

The numbers don't lie either. September 2021 saw record sales of EVs, with close to 33,000 registered in a single month, representing a 15% market share – they outsold diesel cars and vans by 10,000 vehicles. They still have a long way to go to overtake petrol vehicles and hybrids, but you only need to look at Scandinavia to see how quickly this might happen. In Norway, the ban sales of ICE cars comes into effect in 2025, five years ahead of the UK's. But Norwegian drivers aren't going to wait that long, as the market share for EVs is expected to hit 100% around April 2022.

Although it's unlikely that the UK will move as fast, EVs are no longer seen as just a novelty, and their appeal is growing with the launch of every new model. Unsurprisingly, the recent petrol/diesel supply issues have contributed to the interest in going electric.

Is the infrastructure ready?

It's great news that both car owners and businesses are embracing EVs, but what about the charging infrastructure? While it's expected that the

majority of charging will take place at home and at the workplace, we still need a comprehensive public infrastructure for drivers who don't have off-street parking and can't charge at home – and to quell any lingering fears about "range anxiety".

The Charge Project exists to accelerate the roll-out of this infrastructure by making it as easy and cost-effective as possible to install public chargepoints on-street, in shared spaces such as car parks, and at roadside amenities such as petrol and service stations.

ConnectMore, our free online tool, is designed to speed up the decision-making process around chargepoint installation by quickly identifying where future charging demand is likely to be high and can be accommodated by the electricity network with a minimum need for reinforcement. It supports the business case for chargepoint installation where it might not have existed before.

For me, there are no ifs or buts about whether EVs are coming because they're here right now. Let's get ready for the electric revolution and make sure everybody can take part.

PTV Group, the Charge Project partner that developed the ConnectMore transport model, is hosting an online seminar on 26 January 2022, 11:00-12:30, entitled 'Charge: What Mobility Patterns Tell Us About the Requirement for Public EV Charging Infrastructure'. The seminar will explain how ConnectMore can help to quantify requirements for public charging infrastructure based on where and how far cars are driven, and where they are parked. Case studies will also be presented on how ConnectMore can be used to assess chargepoint demand at a local level. You can register to attend this seminar here: https://www.spenergynetworks.co.uk/pages/stakeholder_event_details.aspx?event_id=4189

The changing face of public toilets

Steve Nurdin, marketing director at leading hygiene services provider Citron Hygiene explains how people's perceptions of public toilets are changing post-pandemic and how councils can ensure that they're up to scratch.

The global pandemic has raised awareness of the importance of personal hygiene, particularly in public spaces. From day one, the population was encouraged to wash hands regularly, avoid touching surfaces and even distance themselves from other people to avoid spreading germs.

But while it encouraged improved personal hygiene, Covid-19 has also shone a light on the cleanliness of shared public facilities and emphasised the need for the vast improvement of public toilets.

Research from Citron Hygiene found that 82 per cent of people want to see increased investment in public toilets to ensure that they're clean and safe. Given the increased priority that hygiene has taken in people's lives, it can't be underestimated just what the demand is to see better toilets.

The same study of 2,000 adults also revealed that more than three quarters (76 per cent) admitted that they will only use a public toilet if it is completely unavoidable.

No public facility should be an option of last resort.

Councils, then, are in need of a solution. Fortunately, there are a series of easy measures that they can take to ensure that people have confidence in council-owned washrooms.

Contactless hygiene

Given the way that Covid-19 spread, contactless approaches to everyday activities quickly became popular. Just as contactless payments became commonplace, washroom facilities can feature touch-free

mechanisms to ensure that users aren't coming into contact with potentially infected surfaces.

Sensor-operated hand driers, toilet flushes and soap dispensers will play a key role in the future of public toilets. Using elbows and wrists to activate mechanisms quickly became a laborious task during the pandemic and – with touch-free technology readily available – there's no need for people to go to such lengths to avoid the transmission of germs.

Value for money

Some councils, faced with the familiar problem of being cash-strapped, may be wary of touch-free technology and the costs that they might incur. But in the long run, it can actually help them save money.

Sensor-activated taps and soap dispensers ensure that resources are used intelligently and efficiently, with only the optimum amount of product used.

Another example is Citron's Intelligent Water Management System, which is fully programmable and uses real-time data to inform flush schedules for cistern-fed urinals.

This will help councils save a significant amount on water bills, helping to offset the investment and deliver greater value for money.

Clearly clean

Having visible hygiene measures in place is a simple way of making users feel safe and giving them a piece of mind.

Clean, prominent and easily accessible solutions, such as hand sanitisers, air purifiers

and hand driers, are essential to improving hygiene, and so clear visibility of them helps instil confidence in the user that the toilet is clean.

This is a basic and straightforward technique, but it will immediately ease the worries that three quarters of respondents to Citron's survey had about using a public toilet. Ultimately, councils need to take action to ensure that their public facilities meet residents' demands post-Covid. The world has changed and so have people's habits.

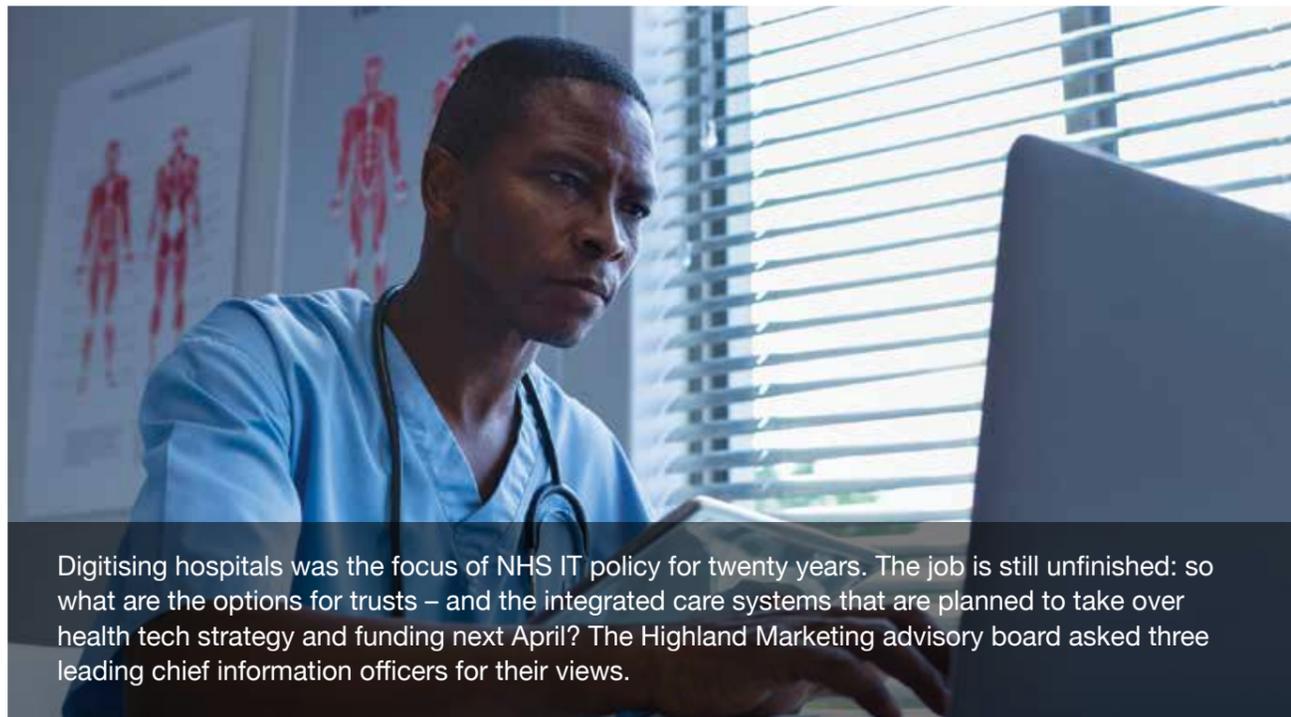
Fortunately, expert support is available for councils looking to implement improvements to their washrooms. Citron Hygiene's consultancy offers councils peace of mind that people will feel safe and that bottom lines will be under control.

To find out how Citron Hygiene can enhance your washroom space visit www.citronhygiene.co.uk or call 08000 665552.



Steve Nurdin

The EPR debate



Digitising hospitals was the focus of NHS IT policy for twenty years. The job is still unfinished: so what are the options for trusts – and the integrated care systems that are planned to take over health tech strategy and funding next April? The Highland Marketing advisory board asked three leading chief information officers for their views.

Covid-19 and the latest reforms of the NHS have focused attention on health tech to an unusual degree. The first few months of the pandemic saw a rapid roll-out of remote working, virtual clinics and digital-first primary care and triggered a lively political and media debate about their future role in healthcare.

Meanwhile, the health tech market has been focused on integrated care systems and the shared care records, data platforms, and apps they will need to join-up services, introduce population health management, and create a new 'offer' for places and citizens.

In the middle of all this, the digitisation of hospitals seems to be in danger of being overlooked. Which is odd, because for 20-years it was the focus of NHS IT policy, and it is still far from complete.

In comments to the HETT show at Olympia, reported by the Health Service Journal, NHSX chief executive Matthew Gould around 10% of trusts remain "largely paper-based" while there are "a whole lot more that are

only semi-digitised."

With the global digital exemplar programme wound down, the Unified Tech Fund planning to allocate the last of Jeremy Hunt's tech money by March, and ICSs due to take over IT strategy and funding in April, it doesn't look like there's a central strategy to improve things.

Yet, as the 'What Good Looks Like' document for ICSs acknowledges, there is a need to 'level up' trust electronic patient record provision, if hospitals are to work efficiently, support their staff, and feed into those shared care record and data platforms.

So, the Highland Marketing advisory board asked three leading chief information officers what their trusts are doing, to inform a debate about the challenges and opportunities ahead.

Big box? Best of breed? Ecosystem? Or new thinking?

Adrian Byrne, the chief information officer of University Hospitals of Southampton NHS Foundation Trust, started

by challenging some of the terminology that is used around hospital systems.

Traditionally, he noted, people have contrasted 'big box' or single supplier with 'best of breed' models for rolling out EPR functionality, such as patient administration, order comms, e-prescribing and, more recently, e-noting and e-observations. But this may be unhelpful and outdated.

Unhelpful, because even the biggest of 'big box' EPRs don't do everything, so trusts are going to have to integrate them with other systems at some point; and the real question may be how much integration they want to handle.

"There seems to be an idea that it's 'go with one of the big boys' or 'let chaos reign', but I don't subscribe to that," Byrne said. "We are said to have a best of breed approach, but we want to integrate where we can and get down to as few systems as possible."

Outdated, because most of the current discussion about EPRs is focused on how they are evolving

into platforms that can collect and then flow data into different systems, including patient-facing apps.

"I spoke to Will Smart [the former CIO of NHS England, who now works for Dedalus] a couple of weeks ago," Byrne said, "and he didn't want to talk about EPRs anymore. He wanted to talk about platform, flowing data, and patients: and I think that's right." (Highland Marketing also spoke to Will recently, and there's more on his views here).

Hospital IT is like an onion...

In practice, the basic distinction is well understood. Martin Sadler, the chief information officer at Sandwell and West Birmingham NHS Trust, said his organisation "put in an EPR 18-months ago" and "it has given us a platform to say: 'this is what we have done to the patient' and 'this is where they are in our system'."

Whereas Neil Perry, director of digital transformation at Dartford and Gravesend NHS Trust, said that in 2017, when his organisation refreshed its IT strategy, it first "decided what it

wanted to do" and then decided that "best of breed was the way to get there, fastest."

But there was agreement between presenters and advisory board members that it is not enough.

Since then, his trust has adopted a modern approach to integrating data from its different systems and re-exporting it to apps that 'fill gaps' in its EPR functionality, working with an open platform from Alcidion.

However, there was agreement between presenters and advisory board members that an EPR, however, developed, is not enough.

Sadler said that while his trust had deployed Cerner Millennium, this was not the end of its IT strategy. Perry showed a slide that set out his strategy as an 'onion' with core functionality at its centre, and open, innovative systems for e-prescribing, analysis, and remote patient monitoring in the outer layers.

"An EPR is important, but to my mind, in our onion, it will be doing the core stuff and around the edge will be all the really exciting stuff: and that's more or less what Will says," he said.

Options, pros and cons

Bearing this in mind, the presenters and advisory board members felt there were pros and cons to the two approaches that less mature trusts will need to consider. A single supplier approach can get trusts a long way fast: one vendor pitches its system as "HIMSS 4/5 out of the box."

There is a perception that this makes 'big box' the preferred option for NHS England, which picked a lot of single supplier trusts for the GDE programme, and NHSX, which has structured the digital aspirant funding and the UTF around a PAS plus EPR modules approach.

It's also understood by boards. Neil Perry said one of his challenges was getting new leaders to understand his strategy. "You get the board asking why we don't have an EPR, or why we don't go and buy Cerner or Epic," he said. "Regulators can also be a challenge."

On the other hand, a single supplier approach is expensive. Sadler said his trust chose to retain its patient administration system and running Cerner Millennium still costs half his IT budget.

There is also a danger of trusts deploying their 'out of the box' EPR functionality and getting stuck at its level. The GDE programme was set up to take trusts in this position to the top of the HIMSS EMRAM maturity model and to create a 'blueprint' for others to follow.

It worked for the trusts involved; but many of Gould's "semi-digitised" hospitals will be running systems they got around the time of the National Programme for IT, with a bit of e-prescribing and e-observations, for which there has been national money.

So, perhaps the biggest argument for 'best of breed' these days is that it can encourage innovation. Perry said that as part of its 2017 strategy reset, his trust decided that "we didn't just want to be an early adopter, we wanted to be right on the left-hand side of the adoption curve, in the red zone, working with start-ups and innovators."

Byrne's team has developed its own technology, including the My Medical Record personal health record that is being quite widely adopted, particularly for prostate cancer follow-up (the Highland Marketing advisory board has been following the progress of MyMR, and there's more information here).

Challenges and opportunities

Parking the current lack of national focus, why haven't more trusts made similar progress? Board-level support and funding are definitely issues. Sadler said that in his previous CIO role, at young fashion website Misguided, his IT budget was 22% of turnover. The three presenters estimated their budgets at 2-4% and said they needed 6-10%.

But it's not just money. Cindy Fedell, a former NHS CIO who now works in Ontario, said people were also an issue. "You need a good CIO, who can understand

strategy and understand their options," she said; arguing that more should be done to support professionalism and certification initiatives.

Then, there's local politics. James Norman, another former NHS CIO who now works for Dell Technologies, said when it comes to collaboration across a health economy, two of the potential reasons trusts go out to tender are that they've been formed in a merger, and it's easier to pick a "compromise" system than it is to get people to work with each other's IT, or they want to be on a different system to their neighbour/s to stop a merger happening.

Although Sadler said he'd have been happy to use a neighbour's technology; if they weren't trying to charge so much that it wasn't an option. "All of that needs to

As an alternative, he outlined a three-pronged approach.

First, a proper evaluation of the level of digital maturity that trusts have achieved for the money they have spent, to identify best-practice and where best to allocate 'levelling up' funds.

Second, ICS or ICP-led, system-wide procurements in areas where these make sense: pathology, imaging, areas like maternity that are not covered by EPR functionality and have a strong patient component. And third, system-wide integration of existing IT, so organisations can exchange messages with each other and with patient facing technology.

"I think it has to be an evolutionary approach," he said. "If people have some digital maturity, they should keep going, and keep thinking about how to



stop," Norman argued. "We should be working together as one NHS and sharing ideas and skills and systems."

ICSs: a chance to level up to where the best are now, not where the GDEs were five years ago?

In the absence of a national strategy, one of the questions for the future is going to be how integrated care systems approach the job of drawing up IT strategies for their trusts and patches.

Byrne argued there is a danger that some could be tempted to bring in management consultants who will advise buying a new kind of 'big box' – a single EPR for trusts, with a health information exchange / analytics package / patient portal attached.

Which, he argued, was likely to be a bad idea because it would mean swapping out one v1.0 system for another v1.0 system.

build on those foundations. And it has to be clinically-led."

Nicola Haywood-Alexander, the CIO for the Lincolnshire integrated care system, said she was hoping to develop a strategy around this kind of idea. "I want to build up an architecture across the ICS," she said. "Instead of asking: 'does this hospital need an EPR' I want to ask: 'what do we need across the system?'"

"That way, we can use investment to support new kinds of thinking. A lot of work that is done in hospital at the moment is going to be done in the community or homes in the future. So, we need to look at what works in hospital and ask how we can get it into the community or homes.

"Then, with a bit of luck, we can get the aspirants to where the best people are now, and not where the GDEs were five-years ago."

Bradshaw announces new Goupil G6 for the UK

The Goupil G6, a 100% electrical utility vehicle is now available in the UK. The new addition expands the Goupil family, making the G6 a credible, environmental and economical solution for the sub 3,500kg market.

Generous payloads and volume

Designed for urban and suburban areas, the new Goupil G6 offers, depending on the configuration, a payload up to 1,200 kg and a loading capacity up to 9 m³. Offering a smooth ride, the G6 can reach 50 mph with a range of up to 94 miles according to the WLTP cycle. Thanks to the 6.6 kW charger, the 30 kW battery can be fully charged in 5 hours using an electric charging station.

Ergonomics and comfort at the heart of the design of the G6

The cab and driving position

have been designed to offer a high level of driver and passenger comfort. The new G6 comes with a comprehensive set of standard equipment: a 3-seater cab, electric windows, heated wing mirrors, regenerative braking, light and rain sensors. An LCD HD colour display allows real-time monitoring of electrical consumption and gives you access to the vehicle's key features.

A novel design with unprecedented body mounting options

The G6 is available with different body configurations: pick-up,

cage tipper, 9 m³ box van, bulky waste collector and hydraulic hook lift, as well as a pressure washer and leaf collector options.

Keeping with the Goupil DNA for unparalleled flexibility, the chassis design enables bodybuilders to readily install customised bodies, like aerial work platforms, rear-load waste collection body, refrigerated bodies, and many more.

Find out more about the Bradshaw Electric Vehicles range at:

www.bradshawev.com or speak to one of team on **01780 782621**.



Circular highways is a necessity not an aspiration – and it's within our grasp

Professor John Read, General Manager, Specialities Technology at Shell

Shell is helping power the journey towards a circular paving industry with Shell Bitumen LT R, a new product for roads that uses plastics destined for landfill as part of the additives to make the bitumen.

As I sit down to write this, world have departed COP26 in Glasgow, leaving their appointed diplomats and negotiators to begin critical multilateral discussions aimed at getting the world on track to net-zero emissions.

This is where the real work begins towards limiting global warming in line with the Paris Agreement and shaping a more sustainable world.

All forms of transportation account for about 24% of all CO₂ emissions worldwide, with around 75% of this from road transportation¹. The role of the paving industry is therefore critical to addressing global sustainability challenges by decarbonising road construction, while continuing to improve performance.

The future is about more than decarbonisation

We are excited to launch Shell Bitumen LT R, our new circular product for roads that has been specifically designed to play a part in addressing the issue of waste plastic. Shell Bitumen LT R is a low-temperature binder with an additive that is chemically converted from waste plastic and blended into the bitumen, saving an estimated 450kg of plastic waste and a tonne of CO₂-equivalent emissions per kilometre of road paved².

Converting non-recyclable plastic bottles destined for landfill to a bespoke bitumen additive improves circularity and also performance. When carefully incorporated LT R is easy to mix, evenly dispersed and stable, and retains the lower production and laying temperatures of the

LT technology Shell Bitumen has pioneered for more than 25 years.

Why is this important? Innovations such as this will help our customers and clients to meet the UK government's target to halve the amount of municipal waste going to landfill by 2035. Creating a new end-market for non-recyclable waste plastic also helps mitigate the climate impact of global plastics production.

Wear and tear on highways

The pressure on road paving is increasing for a variety of reasons including climate change and rising average ambient air temperatures. Roads are not designed to withstand this, leading to early-life surface rutting and deformation that has to be repaired more frequently, and that is not sustainable.

The new generation of fuel-efficient autonomous vehicles, whether they be hybrid or fully electric, represent another significant challenge when it comes to road maintenance. Autonomous vehicles will move very close together one after the other in a 'canalised' fashion, with very few rest periods.

While this may be good for both commuters and the environment, it will inevitably place additional strain on road networks because all of that stress is being exerted by vehicles on the pavement in exactly the same points on the road surface every time, which will lead to more early-life failures.

The transition from conventional dual-wheel axles on vehicles to super single tyres, while undeniably good in terms of reducing tyre wear, also results

in higher levels of pavement damage. Similarly, leaks from poorly maintained air suspensions can lead to steel-on-steel contact instead of a cushioned load, meaning the actual peak loads being applied on the road surface are much higher.

We are also witnessing a tendency for haulage companies to carry more freight on a single vehicle. Again, this is good for the environment, but the increased weight can lead to more road damage.

Putting Shell Bitumen LT R to the test

We are putting Shell Bitumen LT R through its paces in Cumbria to demonstrate its real world environmental and operational benefits in one of the UK's harshest driving environments. Started in May 2021, Shell partnered with Cumbria County Council and UK contractor

Hanson to lay miles of urban and rural roads in a project funded by the ADEPT Live Labs programme.

"What is fundamental to this pilot... is the huge volume of waste plastics, which are stopped going into landfill, which is a major benefit to Cumbria and the UK," commented Councillor Keith Little, who works on the county's highways and transport portfolio. You can view the progress here https://www.youtube.com/watch?v=8p_v2b4VGHU

The road paving industry has a key role to play in this sustainable future, and I am proud that we are continuing to lead the way in developing innovative, impactful solutions that empower our customers to make positive changes now.

Sources:

- 1 World Resources Institute
- 2 Shell Construction & Road



Countering cyberthreats: Becoming secure by design

By Charles Damerell, Senior Director, UKI at SolarWinds

Malicious threat actors are now targeting software vendors and IT vendors in a bid to hide zero-day vulnerabilities in legitimate software updates. Since today's digital supply chains are becoming ever more complex and intertwined, these supply chain attacks now pose a significant threat. By tampering with back-end systems and introducing a backdoor enabling them to compromise software which is then delivered to unsuspecting customers, these highly organised criminals can achieve mass reach and disrupt at scale.

Like many other industry sectors, public sector organisations increasingly reliant on today's technology supply chains now need to take positive action to prevent these types of supply chain attacks. As well as taking steps to secure their own software environments and development processes, they'll need to undertake a rigorous due diligence process when evaluating which software technologies are used in their environment.

Initiate a Secure by Design Development and Build Environment

The recent attack method utilised in the attack against SolarWinds highlights how organisations now need to go beyond traditional integrity checks and single software development and build environments. This should include initiating two or more separate environments and building systems featuring separate user credentials. This will ensure the integrity of each build environment

can be independently verified, and potential compromises addressed.

Similarly, developers should adopt a 'belt and braces' approach, undertaking source discovery/analysis and PEN testing at every stage of the design process. This will ensure the build pipeline is regularly reviewed and appropriate security controls can be applied to every asset.

Adopt Zero-Trust/Least Privilege

Using compromised or stolen credentials to access an organisation's development environment is the top approach used by cyber criminals looking to breach organisations relying on software as a service (SaaS) tools and platforms.

To proactively protect themselves, public sector organisations should implement stronger and deeper endpoint protection as well as zero-trust and least privilege access policies and mechanisms. This includes strictly enforcing requirements for multi-factor authentication in all environments and using privileged access management platforms for all administrative accounts.

Use Attack Simulations to Test Defences

Using Red Team vs. Blue team exercises to simulate full-scale tailored attacks will enable cybersecurity teams to gain first-hand experience at responding to and repudiating attacks that utilise the latest techniques and methods. Indeed, the National Cyber Security Centre (NCSC) recommends organisations take advantage of free-to-use platforms like the MITRE ATT&CK® framework to



fine-tune their white hat intrusion simulations and find ways to disrupt an attack.

Perform Due Diligence on Suppliers

The cascading nature of today's supply chain attacks means public sector organisations will now need to undertake detailed checks on all technology vendors. Ideally, every RFP or due diligence process should incorporate the following key seven questions to help public sector organisations explore and assess the security posture of any supplier:

1. What is your approach to the secure development lifecycle?
2. How do you secure software code and its associated infrastructure?
3. Have you implemented enterprise risk management (ERM)? If yes, please describe the programme.
4. When a threat or vulnerability is discovered by or disclosed to your organisation, what is your process for notifying your customers? Does this include providing details of possible mitigations?
5. What level of detail do your internal processes provide to identify internal threats? For example, which individuals were responsible for specific source

code, software module, library, and/or hardware changes used within your products?

6. What are your internal processes to validate:

- Product changes against a traceable baseline
- When they occurred
- Attribute the changes to their source(s)
- A means to investigate changes without an established lineage

7. Does your organisation have an internal hiring screening process sufficient to identify adversarial actors, domestic/foreign terrorists, and/or candidates with criminal backgrounds?

By implementing a Secure by Design mindset in everything they do and establishing minimum security standards for their suppliers, public sector organisations can improve their overall resilience and confidently reduce the number and impact of supply chain attacks they experience.

At the end of the day, security is everyone's business. Those public sector organisations that boost control of their supply chains and take steps to continually improve their own defences using secure design principles can minimise the risk of being compromised.

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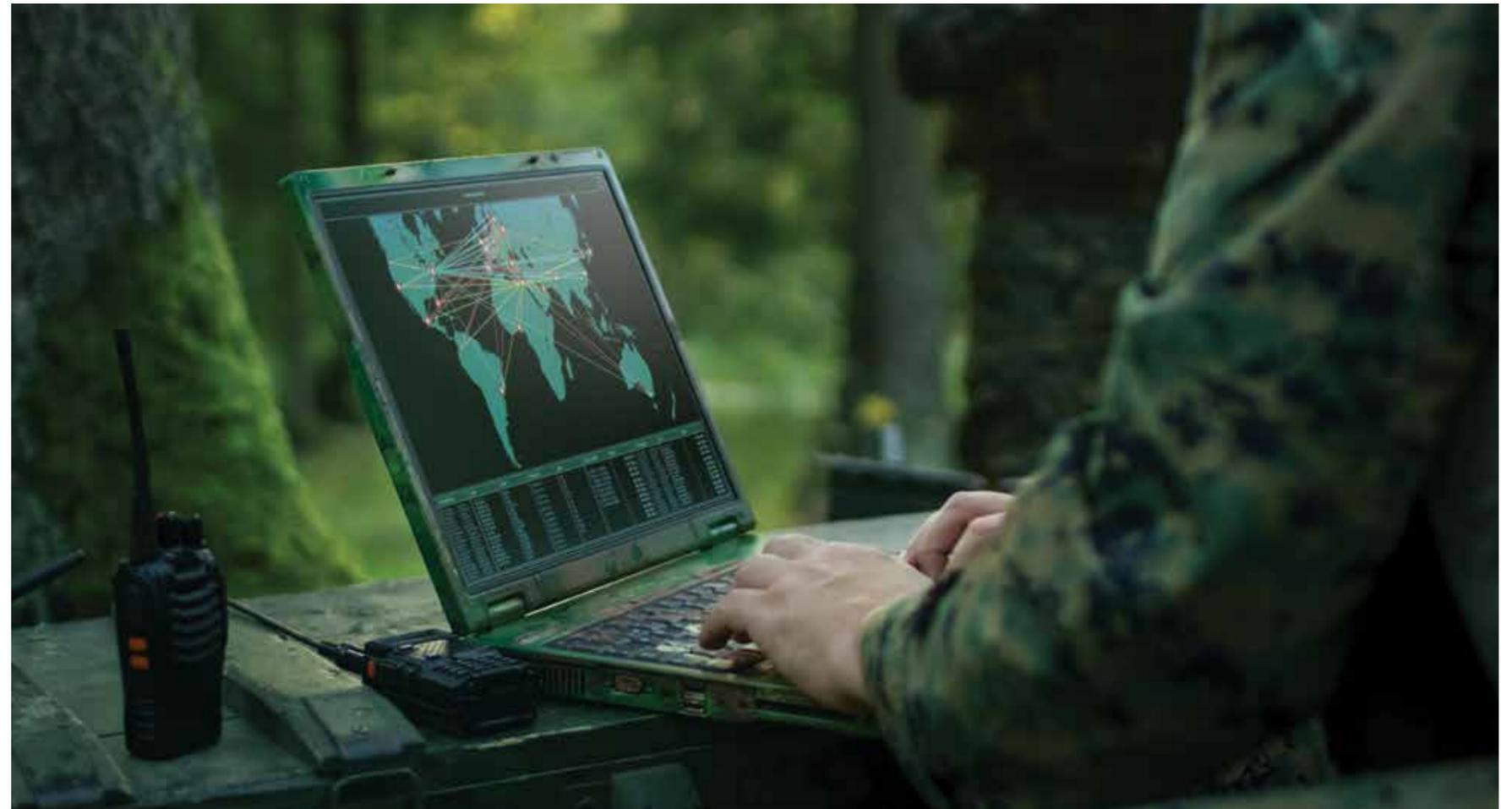


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Network automation is pivotal to the adoption of 5G by defence organisations



By Philippe Agard, Head of Defence Markets, Nokia



Defence organisations have always embraced the cutting edge of technology, and 5G will be no exception. The adoption of this new mobile networking technology will enhance missions and operations with many new applications and services. With its very high bandwidth, low latencies and ability to support massive numbers of IoT devices and sensors, 5G will provide a powerful connectivity platform for land, sea and air operations. At the heart of the software-driven 5G core, network automation will prove to be one of the key aspects to realising the promise of 5G without posing unacceptable and unsustainable costs to network operations.

Military communications systems are a key ingredient in consolidated command and control systems, making possible the real-time visualisation of the operations and coordination between different units and

advanced situational awareness. These communications systems are now capable of transporting massive amounts of video and data from unmanned aerial vehicles, logistic systems and reconnaissance resources. This data can be processed in the cloud and analysed by artificial intelligence systems to provide actionable information for commanders and their staffs. With so much riding on the communications system, it needs to be agile enough to handle many different kinds of network traffic seamlessly and with complete transparency for operators — as well as being cost-efficient.

Network slicing

The communications system not only has to have the performance capabilities to support these demanding applications, but it must also be secure. One of the key features of 5G, is the ability to support dynamic network “slices” for specific users and their applications. Where in

the past, for example, different security classification levels or specific applications might have had different dedicated communications networks, network slices actually run on the same physical infrastructure. This makes 5G’s network slicing the perfect technology, for instance, for supporting different communications or applications with different quality of service requirements and/or security classifications.

Although running on the same infrastructure with other slices, the security of a network slice comes from its virtual segmentation. Although it is running on the same routers, sharing the same radio spectrum or moving across the same fibre optics as other slices, at the software level, it is treated as a completely separate and dedicated network. By the virtue of this segmentation, it stops hacking from one slice to another, for instance.

Similarly, on the performance side, each slice has its own

dedicated set of network resources. Thus, for example, one slice can be configured for drone control and video transmission, while another is dedicated to classified voice communications between commanders. The security classification and access, level of bandwidth, reliability and even latency levels are determined when the slice is configured.

Automating the network

IT network engineers will immediately see that many of these capabilities have been available in early generations of networking technology. However, the majority of them had to be set up manually. Thus, for instance, a virtual private network (VPN) can be set up across a 4G/LTE network that will do many of the things a slice can do, but it takes hours and, sometimes, days to set them up. 5G slicing opens up a new service paradigm where slices are quickly created and deleted as missions are launched and completed. This frees up

network resources for other applications and ensures the most efficient use of the overall network.

This is where network automation makes 5G a game changer. To create slices on demand, the network resources reserved for the slice have to be provisioned at every layer of the network, automatically. The operations associated with slice creation, provisioning, maintenance and tear down simply cannot be accomplished dynamically across multiple domains (RAN, core and transport) without automation.

The challenge is how to manage the end-to-end transport across different technology domains of the WAN network. Backhauling traffic from the 5G radios would usually require microwave transmission at the edge and optical transport in the core. These layers are normally managed separately and apart from the IP/MPLS layer. Logically, the coordination between different network layers needs

to be handled by the network management application, but in practice this is difficult. Generally, these different network layers usually only talk to each other through APIs, which are often vendor-proprietary programs that translate between each layer. This means that a lot of hard work has to be done manually to integrate them, especially in a multi-vendor environment. There are some industry standards emerging, but slowly.

The first companies that will be capable of achieving 5G on-demand slicing are those that are vertically integrated, playing in each of these layers and able to create a network controller with full software-defined programmability. In this case, the software-defined network (SDN) controller manages all of the layers of the network, including provisioning and performance monitoring in order to determine if the various network services are actually meeting the defined service parameters or ‘intent’ of

the policy. When an application is launched, for example, drone control, the application communicates the policy it needs to the SDN controller which sets up the performance and security clearance parameters end-to-end.

If the slice falls below the performance intent anywhere in the end-to-end link, the SDN controller communicates with the affected layer of the network and routes traffic around degraded links to better performing links. This all has to happen far faster than can be managed by a human operator of the network.

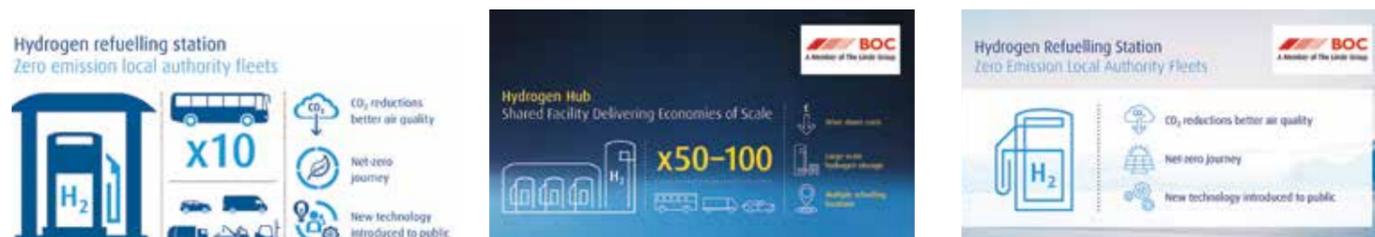
This move toward network automation will not eliminate the need for operations and network engineering personnel. Policies and automation workflows will need to be updated and optimised; and troubleshooting will still be required. However, personnel will have far richer and more targeted diagnostics to work from. Machine learning and artificial intelligence systems will constantly monitor data

from the network and be able to predict bottlenecks and other performance issues, even before they occur. Eventually, these systems will be able to predict failures and heal themselves before an issue affects user performance — taking automation to the next level.

Cloud, AI and 5G will form the technology backbone for data-informed and data-driven decision-making in modern defence forces command, control and intelligence operations. The wide area network (WAN) will play a key role in transporting the large amounts of data involved at speed and scale. Automation of the various layers of the WAN is an all-important part of realising the true benefits of 5G and supporting new innovative applications and use cases. It will contribute to strengthening defence competitiveness and resilience in the face of external threats, as well as boost efficiencies and effectiveness in daily operations.

How councils can lead the way to decarbonise transport with hydrogen

Chris Hampton, Product and Business Development Manager – Hydrogen, at BOC UK & Ireland



Councils and local transport authorities (LTAs) are well-positioned to take a leading role in de-carbonising the UK's transport system.

By updating transport fleets to use zero emissions vehicles, councils can lead by example and, even more importantly, put the infrastructure in place to enable others to follow suit. Councils and LTAs should carefully consider their options for decarbonising transport. The decisions they make today could affect the choices available to other fleet operators tomorrow.

Where to start?

'Where to start?' is one of the most common questions asked by councils and LTAs. To answer that and more, we've compiled a simple guide, available here: BOC's Guide to Decarbonising Transport with Hydrogen Hubs.

The hydrogen advantage

Hydrogen fuel cell vehicles offer some key advantages over battery electric vehicles. They offer a fast and familiar refuelling process, which is comparable to today's petrol and diesel vehicles. Hydrogen vehicles also offer good range (typically 350-500km) from a single refuelling. A further benefit is that hydrogen suits big and heavy vehicles that would otherwise require heavy batteries to power them. These characteristics make hydrogen an ideal fuel for buses, refuse trucks,

road sweepers, gritter lorries, delivery vans and other vehicles in daily use with the ability to return to base for refuelling. All of these vehicle types are running on hydrogen today.

From small to large scale

BOC offers modular refuelling stations that enable customers to start small and grow their infrastructure with increasing demand. If you operate a small fleet of vehicles but you want to benefit from the economies of scale that come with producing higher volumes of hydrogen, BOC can help you join forces with other users to build a shared refuelling facility with a larger vehicle usage. Scaling up can dramatically reduce the price of hydrogen.

Hydrogen is a strategic focus for the UK government and as a result there are a range of funding sources available to help finance your project. BOC is also able to help finance the capital cost for high-volume refuelling hubs.

Location

As well as having a location for vehicles to access dispensing pumps, a refuelling station will need space to store the hydrogen and an electrolyser to produce it. However, the area needed is typically no bigger than a traditional petrol forecourt. Layouts can be designed to fit almost any space and sites can

be safely located adjacent to residential areas, if required.

Green hydrogen

To produce green hydrogen, you need renewable energy. BOC works with customers to source renewable power from a suitable supplier.

Safety

Hydrogen refuelling stations are safe. You must of course ensure appropriate safety distances from nearby assets, but this can be calculated and built into the engineering design. Hydrogen storage vessels are purpose built and designed to maintain pressures at optimal, safe levels and pumps are designed to ensure a safe connection between the dispenser and vehicle – with effective system safety checks every time hydrogen is dispensed. BOC has been producing hydrogen for over 100 years and it's parent company, the Linde Group, has designed and installed over 200 hydrogen refuelling stations worldwide.

Timescales

Typical total build time is around 15-18 months. This allows for planning permission, civil engineering works, construction and commissioning.

Demonstrating success

When Aberdeen City Council

wanted to develop a cleaner public transport network, it worked with BOC to develop, install and operate a tailored, state-of-the-art hydrogen refuelling station. The facility, based at the Kittybrewster bus depot, produces green hydrogen from electrolysis on site, and supplies a fleet of buses that travel up to 350km each day. Kittybrewster is now accessible to all hydrogen-fuelled vehicles, including double decker buses and private vehicles.

Moving forward

Opting for hydrogen refuelling to decarbonise your transport fleets is simpler than you think. By putting modular infrastructure in place it's possible to scale up, share costs and help other fleet operators decarbonise their vehicles too. The first step is to find the right partner. A good hydrogen fuel specialist should be able to manage the whole project, from assessing specific transport and infrastructure needs to advising on funding, design and development of the facility. It could even operate and maintain it for you.

If you'd like to find out more you might find BOC's guide to Decarbonising Transport with Hydrogen Hubs a useful resource. It contains all the information in this article – and more – in a handy PDF format.

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