

# Health Sector News

## High profile campaign to boost EngTech numbers

With, as Mark Jones, director of Learning and Development at Atkins puts it, 'the UK not generating enough new engineers', 3 March saw the official launch of the 'EngTechNow' campaign, which aims 'to increase the status of Engineering Technicians', and is targeting registration of 100,000 such technicians by 2020.

The campaign, first announced by the Prime Minister last summer, aims to 'promote routes for technicians and engineering apprentices to professionally register as Engineering Technicians (EngTech), and thus enhance their career prospects'. Its launch coincided with this year's National Apprenticeship Week.

Engineering Council projections suggest that, between 2010 and 2020, there will be 1.86 million UK job openings for workers with engineering skills. However, a review published in 2012 by the Technician Council (UKCES Working Futures 2010-2020) revealed 'an alarming

skills gap between the current number of technicians in the UK, and the 450,000 higher skilled technician roles needed by 2020 to boost economic growth and ensure the UK maintains a competitive edge internationally'. The three largest professional engineering institutions (the IET, IMechE, and ICE) are thus working on a joint programme to register 'world-class skilled professional technicians' as Engineering Technicians (EngTech), supported by the Engineering Council and another 30 professional engineering institutions (including IHEEM) licensed to award EngTech registration.

The Engineering Council said: "Over 300 UK engineering firms have graduate development schemes that encourage graduates to progress to professional status as Incorporated Engineers or Chartered Engineers. The EngTechNow campaign is urging more companies to recognise that those who have come



Jon Prichard.

through vocational and apprenticeship routes can also achieve professional status as Engineering Technicians."

Atkins' Mark Jones said: "The UK is not generating enough new engineers. We either have to make it a more attractive career, or deal with the consequences of solving challenges such as urbanisation, climate

change, and energy generation, without enough qualified people. A recognised professional status, such as EngTech, will help with early career development, and should make apprenticeships more comparable with the traditional graduate route many young people take to progress in the world of design and engineering."

Jon Prichard CEng FICE FInstRE, the Engineering Council CEO, said: "The Engineering Council fully supports the EngTechNow campaign. Increasing the number of professionally registered technicians is a vital step in delivering future growth and prosperity for the UK."

## Cover Story

### Specialist hoists provide added lift for patient care

V Guldmann develops and manufactures a wide range of lifting and handling products that take both the carer's working environment and the user's personal comfort and security into consideration.

The company says its prime objective is 'to make sure that carers get more time to provide that all-important patient care'. "We achieve this by enabling them to make all lifting and handling operations as efficient as possible at every single stage," the ceiling hoist specialist explains. "With over 30 years of experience internationally, we have seen how ceiling-mounted hoists are developing to assist in not only transferring increasingly larger patients in and out of bed, but also to help with other tasks where moving and handling

the patient is involved. With a wide range of slings and lifting accessories on offer, a modern ceiling hoist system can be used for many other applications, including early mobilisation, hygiene care, rehabilitation, balance training, and positioning of the patient.

"We work with architects, consulting engineers, building contractors, and many other professionals, to ensure that the solutions decided on can be integrated efficiently into both new and existing healthcare facilities."

Guldmann has recently successfully completed the installation of its award-winning GH3 ceiling hoists at Southmead Hospital in Bristol, Musgrove Park Hospital in Taunton, and the Walton Centre in Liverpool.



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# Designing a 'smarter' emergency department

Downing College Cambridge (pictured) will be the venue for a three-day cross-disciplinary course aimed at clinicians, designers, project and facility managers, planners, architects, and engineers, 'with an interest in the latest concepts and ideas that will contribute to the design of an emergency department that meets contemporary and future needs', being held from 7-9 July.

Organised by Dr Sue Robinson, consultant in Emergency Medicine, and deputy medical director, at Addenbrooke's Hospital in Cambridge, the course will "introduce the idea of how the design of an emergency department can facilitate clinical processes, and support the delivery of key national quality standards, as well as how the deficiencies in the design of current 'EDs' impedes effective patient management".



The organisers add: "With speakers from as far afield as the US, and professions such as architecture, planning, and indeed emergency medicine, represented, this course promises to be exciting and original."

Places are limited, and can be booked online ([www.cam-pgmc.ac.uk/courses/design-the-smartest-ed-residential-course/](http://www.cam-pgmc.ac.uk/courses/design-the-smartest-ed-residential-course/)), with both residential and non-residential options available.

## Fire door safety scheme's success

Two years since its launch, the UK's Fire Door Inspection Scheme (FDIS) has more than 400 candidates registered on its online training programme, while over 150 'fire door experts' have passed the FDIS Diploma, and are using the designation, DipFD.

There are now 15 certificated inspectors working with property owners and facilities managers to undertake full fire door audits and provide recommendations for repair, maintenance, and improvements. A campaign this year will aim to get more inspectors approved

through the FDIS certification process.

FDIS has also received strong support for Theodore Firedoor, a fire door safety campaign that uses social media to highlight 'the widespread problems of ill-fitting, damaged, and poorly maintained fire doors in public buildings'.

"One of the drivers of the scheme's success has been the numerous fines handed out to property owners for breaches of the Regulatory Reform (Fire Safety) Order due to incorrectly specified, installed, or poorly maintained, fire doors," the FDIS explained.

## 'Sludge' removal reduces breakdowns

Sheffield's Northern General Hospital has 'significantly improved' the efficiency of its new low pressure hot water heating system by installing 30 BoilerMagXT units from Eclipse Magnetics.



BoilerMagXT's ability to remove black iron oxide or magnetite (sludge) reportedly delivers efficiencies of around 6%, reducing CO<sub>2</sub> emissions, and 'eliminating blockages, wear, and boiler breakdowns'. The company said: "The BoilerMag range of filters offers one of the most effective methods of removing ferrous and non-ferrous contaminants, down to sub-micron size. As water circulates through the core, Eclipse's high intensity magnets attract

iron oxide contamination to the magnetic rods, removing it from circulation."

The Estates Department at the Northern General Hospital specified BoilerMagXT as part of a

steam to low pressure hot water conversion scheme. Other energy efficiency improvements on the 120-acre site include new gas condensing boilers expected to be some 10-12% more efficient than the site's 'outdated' conventional existing boilers.

Magnetic filters were specified for additional protection to new plate heat exchangers; the previous system had regularly become 'clogged'.

## News in brief

### Scottish contract for BOC Healthcare

BOC Healthcare, reportedly the UK's largest medical gases business, has made its first delivery of compressed medical gas to NHS hospitals in Scotland (to the Aberdeen Royal Infirmary), marking the start of its new contract to supply medical gases to over 330 customers, from Shetland down to the Scottish Borders. The four-year agreement covers the supply of all medical gases cylinders to 144 Scottish hospitals, and a number of community-based health centres, in Scotland's 14 Health Boards.

### Significant savings, 'zero outlay'

Clifton Hospital in St Annes, Lancashire, has signed an agreement with EuroSite Power for the provision of 'clean' electricity, heat, and hot water from a CHP system, 'provided at zero capital outlay to the NHS Trust, but affording lower energy bills for 15 years'. Under the agreement with Blackpool Teaching Hospitals NHS Trust, EuroSite Power will install and operate a 100 kW CHP system, which will produce up to 1,745,283 kWh of total energy per annum, while saving up to 208 tonnes of CO<sub>2</sub>.

### OCS invests in FM consultancy

International 'total facilities management service provider', OCS, has invested in international FM consultancy, Agents4RM, with the aim of establishing a global professional services business for the FM and built environment sector. The business, to continue being led by Agents4RM's MD, Lionel Prodgers, will provide 'a broad range of professional services' aimed both at the emerging markets in the Middle East, Asia, and south-east Asia, and at 'mature FM markets', such as the UK, mainland Europe, and the Americas. A key target sector will be healthcare.

### 'All-in-one' room controllers

A new range of room controllers, the SE8000 Series from Schneider Electric, integrate a thermostat/temperature sensor and programmable room controller in a single unit.

'Elegantly designed, with a highly customisable surface that works in a multitude of environments and décors', they deliver 'all the comfort and control functionality found in multi-component Display Data Channel (DDC) systems, but in a small, easy-to-install, package', and can scale across a facility 'to optimise the energy use of HVAC systems, and help reduce operational costs'.

# Casing the joint efficiently

Pegler Yorkshire's new 'online selector tool', **INSIGHT**, provides installers and contractors with 'a way to identify the most effective method to join pipework in any given situation' via three 'simple stages of search and selection' – confirming the project type, application, and pipework system.

Phill Jackson, business development and marketing director, said: "INSIGHT offers impartial, unbiased advice on which method and product is best suited to a particular application."

Pegler adds that 'jointing products can be flexible to meet varying requirements',



but, 'dependent on the project, application, and needs, some will perform far better than others, and be quicker and easier to install'. "For example," it says, "push-fit and press-fit jointing products offer a myriad of benefits when utilised in different

applications. Consideration is given to the situation of the pipework, the confines that may affect it, and the application – gas, solar, heating, and hot or potable water."

Phill Jackson added: "INSIGHT also highlights systems that can be fitted without having to purchase non-standard tools, and homes in on push-fit solutions where speedy installation is a necessity."

## Forward funding

Acting on behalf of the Watkin Jones Group, the Healthcare team at Jones Lang LaSalle has successfully forward funded a modern, purpose-built health centre in Chester city centre for a total consideration of £18.5 million with Primary Health Properties (PHP).

The 'landmark building', at Gorse Stacks on Delamere Street, will comprise 'a high quality NHS integrated resource centre' to be known as 'The Fountains', accommodating NHS facilities, a pharmacy, and four GP practices relocating from existing premises in Chester. The medical centre will be fully let on a single lease for 25 years, agreed by West Cheshire Health Consortium and the NHS.

## Energy-saving steam project

Spirax Sarco has delivered a project to provide the steam for heating, hot water, humidification, and laundry services, at the New South West Acute Hospital in Enniskillen, Northern Ireland.

Appointed by building services contractor, Mercury Engineering, it also provided the controls to manage the steam feeding the hospital's CHP plant. Spirax Sarco designed the steam system, undertook project management, and supplied the equipment.

The hospital runs two biomass boilers to drive the CHP generation plant, while two oil-fired steam boilers running at 8 bar g generate steam for low-temperature hot water for heating, and domestic hot water for handwashing, bathing, cleaning, laundry services, and humidification.

Alongside providing all the peripheral equipment to support the CHP engine, Spirax Sarco designed, fitted, and commissioned, 11 plant rooms, 27 air handling units, boiler controls, heat exchangers, and all the associated equipment to establish an efficient energy distribution system.



# incubator ? or radiator

An independent study has revealed that a single traditional LST radiator guard can harbour and circulate over **13,000 colonies** of MRSA - **over half a million colonies** across a typical hospital ward.

Replacing these with the patented, easy access DeepClean LST radiator guard from Contour Casings reduced harmful bacteria levels by **91% - proven.**

Discover how Contour's LST radiators and retrofit radiator guards not only remove bacteria, but also save you money by reducing cleaning and maintenance overheads.

*"In less stringently cleaned environments airborne routes such as the convection process of an LST radiator have been identified as sources of microbial dissemination."*

*Source: King et al 2013 Bioaerosol Disposition in single and two-bed hospital rooms.*

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# Striking green roof for 'new' £240 million Alder Hey

Prater has secured a roofing and cladding contract for the new £240 m Alder Hey Children's Hospital in Liverpool, which is scheduled to open in the summer of 2015, at which point the existing buildings will be demolished and replaced with parkland.

The company, which commenced work in March, will be installing a green roof system incorporating Permaquik hot melt, as well as Kalzip to the canopies, which are integral to the overall design of the hospital, forming three 'fingers' that radiate out from the atrium concourse, and allow most rooms to enjoy views of the park and garden. The Prater teams will also be responsible for the composite cladding and louvres to plant rooms.



"Successful green roofing is dependent on the performance of the roof build-up," said Gavin Hamblett, Prater's pre-construction director. "Issues of durability and reliability have to be approached at the earliest design stages. We have the proven experience and technical capabilities required to deliver green roofing systems."

## Penny Lane to house eye centre

Building contractors, Lindrick Construction, have begun the refurbishment of a Victorian house with the iconic Liverpool address, One Penny Lane, to create a 900 ft<sup>2</sup> medical facility with treatment and consulting rooms for Spire Liverpool Hospital.



Beatles song released in February 1967 as a double A-sided single, with 'Strawberry Fields Forever'.

Alison Peake, hospital director at Spire Liverpool Hospital, said: "Heritage-wise the building is important, so we are going

to make sure we are careful in our conversion, and sympathetic to its surroundings. It is in a Conservation Village area, so it is important to comply with the conditions while ensuring it serves its purpose as a medical facility."

When complete, One Penny Lane will house The Liverpool Eye Centre, 'a collaboration of ophthalmic surgeons', plus an 'Aesthetic Suite', and a private GP service.

'Every aspect and detail of the exclusively private clinic has been thought of to give patients the bespoke private experience', while plans to link the sandstone building to the main hospital via a glass corridor are in place.

Penny Lane, named after 18th century slave ship owner and anti-abolitionist, James Penny, was immortalised in the

## Keeping pipework corrosion at bay

Warning that corrosion of pipework and components in water-based heating systems 'nearly always results in costly repairs and unwelcome disruption', Midland Corrosion Services offers a continuous monitoring service to ensure that customers' low temperature hot water and chilled water systems are kept 'in tip-top condition' at all times.

The company said: "By monitoring your systems 24 x7, you can have complete peace of mind that nothing can go wrong that will not be detected by our experienced team. All important system parameters are recorded and relayed to our central facilities via GPRS. Our trained staff can view how your system conditions are changing over time, and, using pre-set alarms, are alerted to serious problems as soon as they occur.

The company typically monitors:

- Dissolved oxygen levels.
- Pressure.
- Flow rates in main flow lines and from make-up supply.
- Conductivity (indicative of inhibitor concentration).
- pH.
- Galvanic current (indicative of general corrosion rates).
- Crevice corrosion (indicative of onset of crevice corrosion).
- Temperature.

MCS's 'complete managed service' includes monthly reports with full presentation of data and trends, together with detailed analysis and recommendations to keep systems running optimally.

## Catering mark 'first' for Rotherham Trust

The ISS Facility Services Healthcare catering service at The Rotherham NHS Foundation Trust has achieved the Soil Association's Food for Life Bronze Standard Award – the first time a contract caterer has achieved this important accreditation in the NHS – and is now looking to progress to the Silver standard.

The 'Food for Life Catering Mark' is an independent endorsement that a caterer is taking steps to improve their food, using fresh ingredients, free from harmful additives, and better for animal welfare.

To achieve the Standard, the Trust demonstrated the use of seasonal menus, with 75% of dishes freshly prepared. Meals incorporate non-GM ingredients, including meat from farms which satisfy UK welfare standards. Alongside stringent food standards, comprehensive training is provided for all catering staff.

Rob Sexton, chief executive of Soil Association Certification, said: "The new Hospital Food CQUIN (Commission for Quality & Innovation) provides the opportunity for hospitals to take steps towards serving better food. I hope other



NHS Trusts and their caterers follow ISS's and Rotherham's lead – into a new future for hospital food which delivers multiple benefits for patients, staff, and visitors."

# Summer school for engineer apprentices

Eastwood Park is to run an engineers' apprentice 'summer school' in August, offering four days' residential training for hospital engineering apprenticeships.

Launched in support of last month's National Apprenticeship Week 2014, it will focus on 'linking general engineering practices to the requirements of relevant HTMs'. Apprentices will gain 'a unique and much greater understanding of how the services they provide impact on compliance with various HTMs'.

Eastwood Park explained: "The training week will deliver a practical, hands-on introduction to a broad range of engineering disciplines, with learning taking place in simulated hospital



settings; it will be relevant for all mechanical and electrical apprentices."

An 'overview' of the following will be provided:

- Electrical installations in medical locations – including electrical safety (Section 710, BS7671).

- Medical gas safety – including Permits to Work (HTM 02).

- HVAC systems, with 'the purpose of ventilation in healthcare' (HTM 03) explained. (The photo shows HVAC engineering training in progress at Eastwood Park).

- Water hygiene – including 'fundamental knowledge' of *Legionella* (HTM 04).

- Decontamination and sterilisation equipment.

"City & Guilds accreditation is in the process of being obtained," Eastwood Park explained. "Workshops are being scheduled for 4-8 August 2014. Places are limited, so please register your interest as soon as possible, at the latest by 30 April."

## Wandsworth bolsters nurse call team

Wandsworth Healthcare, the specialist provider of nurse call systems, has appointed Stuart Guest, who has 25 years' experience in developing and delivering nurse call and communications solutions to large hospitals, as national framework manager.

His remit will include working with major hospital projects in the UK and internationally to provide them with 'cost-effective patient communications systems'.

Adam Sherry, Wandsworth Group's managing director, said: "Stuart Guest's appointment to the medical team allows us



**Stuart Guest.**

to better focus our new product development on customer needs, while offering the most innovative and patient-centric solutions. His experience spans sales, development, engineering, and installation."