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SKANSKA

Upfront magazine
We build for a better
society issue

#7: 17, June

A Skanska publication
in print ▪ online

Creating a positive legacy

We build for a better society

First-class act

How Bristol's
schools have been
transformed

Inside this issue

K&L Gates

Clarissa Coleman

Transport for the North

John Cridland

Spitalfields Crypt Trust

Gary Davidge

Open-City

Rory Olcayto

Marks and Spencer

Munish Datta

Anglian Water

Andy Brown

Plan A: Putting
sustainability at the heart
of Marks and Spencer

New currency: How
natural capital helps
protect the environment



The legend and the legacy

Ralph Erskine
1914-2005

The legacy left by internationally renowned architect Ralph Erskine goes far beyond buildings alone.

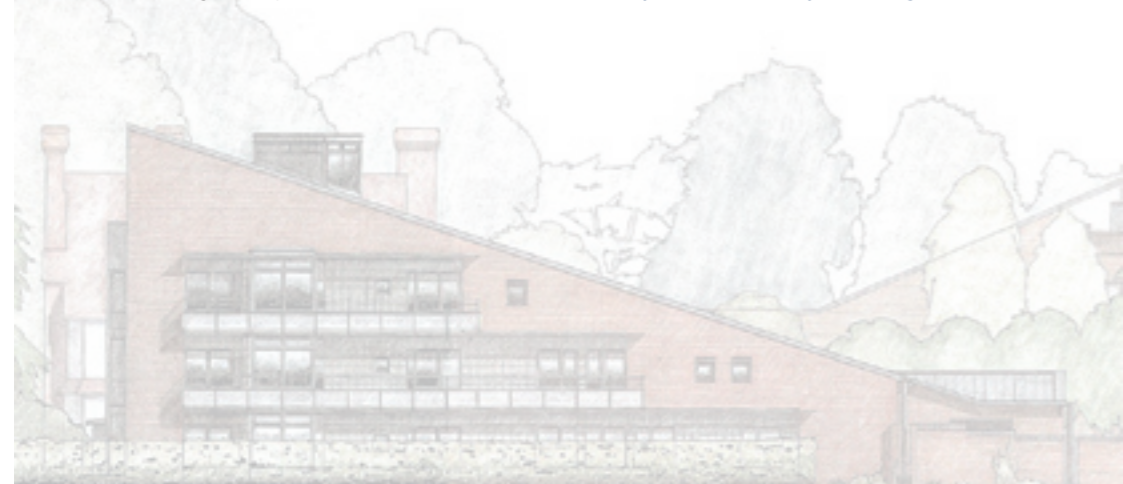
Erskine was interested in creating buildings with an innovative social, ecological and aesthetic character. He has remained a strong influence on modern architecture and was a leading advocate of sustainable features in buildings, such as rainwater harvesting solutions.

One of Erskine's most famous projects is Clare Hall, a graduate college at the University of Cambridge.

Erskine spent much of his career living and working in Sweden, creating iconic buildings such as the Ekerö town centre and Lilla Bommen office building, designed for Skanska as our Gothenburg headquarters.



Clare Hall is home to around 300 students, fellows and visiting scholars. Erskine's striking contemporary design created a unique location for research and study. The modern look stands in direct, and deliberate, contrast to the historic architecture of many of the university's buildings.



Richard Saw
Editor

Welcome

The theme of this issue of *Upfront* is the positive contribution that companies, organisations and people have on the world.

It ties in with Skanska's global purpose 'we build for a better society'. We aim to work in a socially responsible way, helping society to overcome the challenges it faces.

In this edition, leading experts and thinkers cover a range of diverse topics, including everything from ethics to sustainability, social and urban regeneration and education.

Featured in issue #7:17

- 04 A positive legacy: Skanska's Gregor Craig says we must benefit society
- 06 Plan A: Munish Datta explains the M&S approach to sustainability
- 12 Cover story: Setting the standard**
Lawyer Clarissa Coleman on the value of an ethical approach



- 20 First-class result: How Bristol's schools have been transformed
- 30 Northern rise:** John Cridland talks renewal and regeneration
- 36 Skanska's Sam Stacey says innovation will change the world for the better
- 40 **Show me the money:** National Grid's Steven Thompson on a new way of valuing the environment
- 44 **Helping hand:** Gary Davidge highlights volunteers' contribution



"Around 80 per cent of the people I deal with have an addiction of some sort. About half of them are homeless."

Upfront magazine
Produced by Skanska UK's communications team

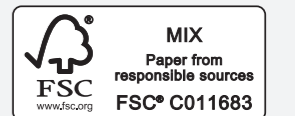
Executive editor
Anna Mann

Editor
Richard Saw

Contributors
John Mitchell
Lizzie Sparrow

Design
Ting-Kai Chang

- skanska.co.uk
- twitter.com/skanskaukplc
- youtube.com/skanskauk
- linkedin.com/company/skanska



We build for a better society



Contributing to a better future is critically important says Skanska UK's President and CEO **Gregor Craig**

Social responsibility and strong values have been a big part of Skanska since it was founded by Rudolf Fredrik Berg in 1887.

His approach was ahead of its time. He helped support the construction of homes that his workers could own and created healthcare centres for children. He brought cows to the office, when there was a famine, so that employees could buy cheap milk to feed their families. Berg also introduced voluntary pensions and life-insurance and campaigned for the introduction of public transport.

These values of caring for other people and the planet permeated the company and its activities. But then, more than 100 years after it was founded, Skanska lost its way.

Somewhere along the line those strong values became diluted. In 1997, there was major environmental disaster at the Hallandsås tunnel project in Sweden. As a result of Skanska's actions, fish and cows died after the local water table was contaminated by chemicals used in the construction of the tunnel. There was a public outcry.

Then came a period of soul-searching and reassessment. How could we, as



**Rudolf
Fredrick Berg**
Founder,
Skanska

a responsible company, have let this happen? One thing was clear. This incident must never ever be repeated. It was the beginning of today's strong and continuing focus on sustainability and the environment. That began by putting right what went wrong at Hallandsås. No effort was spared in the clean-up. Skanska brought in external experts to help with the decontamination operation and the area was completely restored.

The episode marked a return to the values that marked the early part of Skanska's history. There was a declaration: "when we build, we do it right". There was a recognition that we had to return to being a values-led organisation. The importance of leaving a positive legacy in the communities where

we work was acknowledged and significant changes took place. Our green commitment was recognised in 2000, when we became the first global construction and development company to receive group-wide ISO 14001 environmental certification.

In the 2000s, a new code of conduct was introduced, and the five zeros, which codified our values, launched. Honesty, transparency, collaboration, getting things right first time and protecting the environment were the watchwords. An ethical approach was embedded throughout the whole company. There was a renewed focus on health and safety together with diversity and inclusion. Globally, we rebuilt our reputation. In 2011 *The Sunday Times* named Skanska as the greenest company in the UK.

A further evolution took place, and in 2015, our commitment to having a positive impact on the world was restated in our purpose 'we build for a better society'. This defines the essential reason why Skanska exists.

Everything we do answers a challenge that society faces and helps to improve people's lives, whether it's building new schools and hospitals or helping people get the daily essentials like energy and water.

At the same time, our values were re-articulated, retaining the essential elements and bringing them up to date. Care for life, act ethically and transparently, be better – together and commit to customers sum up our approach. Social responsibility must be at the heart of everything we do,

every decision we take and it can't be lip-service. Our employee surveys show that people believe that we are genuinely committed to health and safety, ethics, the environment and diversity and inclusion.

We are, of course, on a journey and we can't afford to be complacent. That's one of the lessons of Hallandsås. We need to be challenging ourselves constantly and scrutinising what we do to ensure we don't repeat the mistakes of the past.

One of the things we want to do is encourage the construction industry to become more sustainable and socially responsible. I think we can make a real difference. And making a difference is at the heart of social responsibility. ■



When a plan comes together...

Case study: Munish Datta from Marks and Spencer explains why sustainability is a key part of the company's approach to business

When Plan A was introduced in 2007, it was transformative. Stuart Rose was the boss of Marks and Spencer at the time. He was a very strong leader, with very forthright views. He took a load of senior management to a cinema to watch the climate change documentary *An Inconvenient Truth*. At the end, he said 'how do we respond to this as a business?' He set up a small committee to work across every part of the business and put together a plan. He asked for a plan that systematically changed every facet of M&S, to do less harm to the environment and bring benefit to society.

Plan A is about protecting the planet, sourcing responsibly, reducing waste and helping communities. It set out 100 commitments to be achieved in five years. We've now introduced Plan A 2020, which has 100 new, existing and revised commitments.

Big vision

Corporate social responsibility has always been very important to M&S. I think we're a unique business. We started off over 130 years ago, as a family company, and sustainability has always been part of the M&S ethos. I think it's become increasingly important to every generation of the workforce at M&S. I believe one of the key reasons that people come to us, stay with us, and love working for us, is because we're a responsible business with a purpose.

For me, Plan A is about M&S's vision to enhance lives in every part of business activities. When M&S touches someone's life, we aim



Munish Datta
Head of Plan A and
facilities management



to enrich it in some way. This is whether you're a cotton farmer, an M&S employee, a customer or someone benefiting from a food donation. I'm talking about enhancing their lives in every possible way, not just the basics of normal business practices. This could be in our supply chain in Africa and Asia, giving people new skills to help them sustain themselves, to benefiting small charities and community groups in the UK, helping them with our skills.

The launch of Plan A was one of two defining moments for me in 2007. I also found out I was going to be a father. When you have a

“ **When M&S touches someone's life, we aim to enrich it in some way.** ”

child, you start thinking about things in a very different way. You think about the legacy that society, and the world, will leave future generations. Back in 2007, sustainability as we know it was a very niche thing. This was not an issue that was bubbling in people's minds. I watched *An Inconvenient Truth* around that time, and it made

me really concerned about the trajectory that we, as a society, were on if we didn't make some radical changes.

I remember the day we publicly launched Plan A. We took over all of our shop windows and turned them into big Plan A statements. We'd never done that before. This

was not a commercial product or range that we were launching. This was, effectively, the launch of a business strategy. It was an incredible thing to do.

Keys to success

Plan A has been one of the most successful business transformation programmes at M&S. There are a number of reasons for that. It's leader led. Our former CEOs Stuart Rose and Marc Bolland and our current CEO, Steve Rowe, are all very passionate about it. Rose deserves a lot of credit for changing the company's DNA. He was very vocal, very public: he was Mr Plan A, and I think that was really important.

Photography M&S (marksandspencer.com)

I think another reason for Plan A's success is its relevance. It has 100 commitments, which is a lot, but we're a diverse company selling everything from soap to lingerie and banking products. We couldn't just have a plan for our own operations and ignore the products we sell or our customers. We needed a comprehensive plan that looked at every part of our business. The beauty of those 100 commitments is that every single person at M&S, all 87,000 people, can put their finger on something that's relevant to them.

You also need a strong performance culture to back it up. Ten years on, Plan A is completely integrated

Pictures: M&S has a global programme which works to improve the communities of its suppliers.

into our performance management ethos and our objectives and how we measure them.

For me, the last reason would be humility. We're still learning and we've got lots to learn from other companies, such as Unilever, which is a leader in the field. We reached out and formed alliances and partnerships with organisations we had never worked with before.

We were a founder member of the sustainability charity UK Green Building Council. We also got close

to BRE, the Building Research Establishment. We started working more closely with the government and non-governmental organisations such as the Rainforest Alliance and Forum for the Future.

Sustainable impact

Plan A affects our day-to-day decision-making processes. Over 70 per cent of our products are sourced in a more ethical or sustainable way than their market equivalents. When we look at opening a new store, we look at the environmental impact of running that store over the course of its life. We assess how much carbon and water will be used, and how much waste there will be. As well as the merchandise we sell, we consider things such as, for example, the shelves our goods are on. We think about how they were made, how recyclable they are, and how sustainable they are.

In 2015, there was a £185 million benefit to the business, because of Plan A. We are 39 per cent more energy efficient than we were in 2007. That's a saving of between £30 million and £35 million a year. If you look at our new revenue streams, Plan A also helped to inspire M&S Energy, which supplies electricity from 100 per cent sustainable sources to over 300,000 customers.

We wouldn't have been able to achieve anything like the success we have had with Plan A without our supply base. I'm speaking about every part of the business, but particularly the property side. Many of the solutions we've implemented, from eco-stores to carbon reduction, have been due to the expertise, innovation and experience of the supply chain.

Looking to the future

We live in a fairly volatile world. That means being more careful with limited resources is really important for businesses. In difficult times such as these, when revenues are hard to come by, when the price of



raw materials is rising and there is pressure in terms of the minimum wage and concerns about the availability of skilled labour, frugality is more business critical than normal.

In general, I think that things have improved since 10 years ago and businesses are starting to think much more about their role in society, how much they contribute and their social value, but there is still a long way to go. Right now, there's no common way to measure social value.

I think you have to understand, as a business, your impact on society. For example, it's very easy to focus on M&S and the communities around our stores. But that's only



“ Plan A has been one of the most successful business transformation programmes at M&S. ”



one very small part of our total societal impact. This goes right back to the raw materials we have to extract from certain societies for some of our products, to how we manufacture and transport the finished goods to our stores from across the world. It also includes how we sell those products.

I think it's also really important to understand what social value means to your business in the context of what you do. For a construction company that's very different to a retail business. The kind of skills you have and what you take and give back to society are different depending on your sector and how your business operates. You then

Pictures: Ensuring products are sourced sustainably and protecting the environment are key M&S priorities.

have to use that knowledge to create clear, demonstrable and measurable ways of contributing to society.

I think the trend towards increased sustainability will continue. New technology, such as 3D printing, will help us find more and more efficient ways of doing things. It may mean you don't shop for clothes of a particular size because everything will be customised and perfect. We're at the start of a massive revolution, and I think we're at the cusp of something remarkable within the next 10 years, if not quicker. ■

The ethical front line

Lawyer **Clarissa Coleman** believes that ethics really do matter in business

“

Put simply, the financial, reputational and often criminal consequences of failing to act in an ethical way can be enormous.

”

Clarissa Coleman is a partner in the Litigation Department at the global law firm K&L Gates LLP. She has acted for several organisations that have been investigated for misconduct, so knows more than most about the importance of ethics in business.

Coleman says: “A key factor in the long-term success and stability of an organisation is its approach to ethics. Honesty, integrity and professional conduct are basic behaviours that underpin business reputation. And reputation is one of an organisation’s most important assets in terms of driving profitability and attracting and retaining employees, investors and business partners.”

Coleman was Head of Litigation at Consensus Business Group, the property investment firm owned by businessman Vincent Tchenguiz, during a high-profile investigation

by the Serious Fraud Office (SFO) in 2011, following the collapse of Kaupthing Bank in Iceland.

Tchenguiz was arrested and his home and offices searched in a dawn raid by the SFO. Coleman co-ordinated the immediate response on the morning of the dawn raid and then planned the subsequent judicial review against the SFO. In 2012, the High Court declared that the search warrants used in the dawn raid were unlawful and criticised the SFO’s handling of its investigation.

The SFO admitted serious mistakes in its investigation, which was later dropped without any charges being pressed. Tchenguiz sued the SFO, resulting in an undisclosed settlement and a public apology.

Coleman notes: “An investigation can really take its toll on individuals. They are worried about their jobs, about the long-term health of their company,

and whether they may be found criminally liable.”

In another high-profile case, involving the FTSE 100 mining company ENRC plc, Coleman was drafted in to act as Deputy General Counsel to assist with an internal investigation into claims of fraud, bribery and corruption.

“The fallout from an allegation or actual discovery of misconduct can be huge. Share price and balance sheet may be hit; business contracts withdrawn or rescinded; expensive, time-consuming and distracting internal and external investigations triggered; third-party legal actions commenced; the stress, worry and uncertainty will almost certainly impact productivity and staff retention; and regulators may end up imposing crippling fines.

“Put simply, the financial, reputational and often criminal consequences of failing to act in an ethical way can be enormous.”



Photography: The Fold London (thefoldlondon.com)



The price of dishonesty

Corruption can cost companies eye-watering sums of money. An engineering company ended up losing \$292 million, after paying a \$1 million bribe to get a \$1 billion contract. The company was fined \$18 million, had to pay \$74 million in forensic accounting and compliance costs, and the contract value was reduced by \$200 million.

In August 2016, Barclays Bank was fined another \$100 million in the US, following the London inter-bank offered rate (LIBOR) fixing scandal. This was on top of earlier fines of \$498 million and £59.5 million in the US and UK.

Legality vs morality

In April 2016, a spotlight was shone on the tax affairs of the

rich and famous by the release of the Panama papers in the world's largest-ever leak of confidential information.

A total of 11.5 million documents from the database of the Panamanian law firm Mossack Fonseca were given to journalists. These gave details about the use of tax havens and secretive offshore tax regimes, which drew much criticism from the media.

“Unlike tax evasion, tax avoidance is legal. Closing tax loopholes is the most effective way to deal with tax avoidance. However, the basic point at issue here is whether tax-avoidance schemes are ethical in the first place. Is it fair that the very rich can avoid paying tax when ordinary people cannot?” remarks Coleman.



“
**Embedding business ethics
into company culture is a
fundamental aspect of responsible
management.**
”

Photography The Fold London (thefoldlondon.com)

Fraud

According to auditor KPMG's six-monthly report into fraud in the UK, £328 million was stolen in the first half of 2016. Areas such as London, the south-east of England and the midlands were hotspots. Businesses, particularly small and medium-sized ones, were cheated out of £95 million. In the midlands, which accounts for 42 per cent of UK fraud, managers were the worst offenders.

The scale of fraud can be enormous. In one case alone, a Dutch shipping company was conned into paying a gang £73 million by a man in London who posed as the Pope's banker. The fraudster was jailed for 14 years.

A 2015 report by the accountants PKE, together with the University of Portsmouth's Centre for Counter Fraud Studies, suggested that fraud could be costing the NHS around £5.7 billion a year. The budget of the NHS in 2015 was just over £116 billion, which shows the size of the problem.



“Individual cases of fraud can vary greatly in terms of scale and sophistication. Implementing comprehensive fraud prevention policies and controls could be the difference between success and failure of your business,” says Coleman. “Honest and vigilant employees are your best assets in the fight against fraud. Training relevant employees in

detection, encouraging them to proactively monitor for fraud and empowering them to take the initiative to follow up on concerns are important and highly effective measures. Communicating internally and externally that your company takes fraud prevention seriously and has robust controls in place will also help deter fraudulent behaviour.”



Photography The Fold London (thefoldlondon.com)

Whistle-blowing

The importance of whistle-blowing has been recognised by the NHS. ‘Freedom to Speak Up’, a report by Sir Robert Francis, took direct evidence from over 600 people, while over 19,500 took part in an online survey. It found that many people were afraid to speak up about issues because they were afraid of victimisation. The NHS

has now implemented a series of measures to support whistle-blowers and make it easier to raise concerns.

“Confronting unethical or illegal behaviour takes courage. Organisations need to make sure that they create an environment where individuals feel that they will be taken seriously,

supported and protected when reporting concerns. Senior management should demonstrate a commitment to whistle-blowing and this message must be communicated throughout the organisation. Company policy should require that all allegations are documented, promptly investigated and then reported at the highest levels within the organisation. Covering up wrongdoing should never be an option.”

Corporate culture

“Embedding business ethics into company culture is a fundamental aspect of responsible management and critical to long-term success. A top-down compliance culture is key to minimising risk. Senior management should be visibly engaged in promoting and reinforcing internal corporate values. In fact, business leaders should regularly assess the culture of their organisation to ensure that the right behaviours are playing out and messaging on ethics remains powerful and fresh.” ■



Making the grade

Bristol meets the challenge of transforming its education system, as it addresses rising demand for school places due to economic success

To fully appreciate the recent transformation of Bristol's schools, it's first necessary to turn the clock back 15 years.

Back then, it was a thoroughly bleak picture.

Decades of neglect and under-investment had left the system in a sorry state. Secondary schools dating back to the 1950s were falling apart and many could no longer function as efficient teaching spaces. Ill-designed school layouts meant bullying was rife and modern IT provision was almost non-existent.

Parents who could afford to were placing their faith in the city's booming independent education sector. Others would drive their children each day to nearby south Gloucestershire or north Somerset rather than use their local secondary school.

Teacher morale was also rock bottom as Lucy Mitchell, a teacher of English at Cotham Grammar School since 1995, remembers: "We were doing our best for the children, but it was very difficult under those circumstances," she says. "Bristol secondary education had such a bad reputation that most of the high-achieving children left the system after primary, and they're the ones you need to build momentum in a classroom."

Small wonder that, in 2005, Bristol was second from bottom for GCSE results among all English local authorities. Clearly, something radical needed to be done.



Growth and renewal

In 2006, Bristol City Council entered into a ten-year partnership with Skanska to help turn things round. The country's first Local Education Partnership was formed to invest in a better future for Bristol's schools.

Bristol has a booming economy and a growing population. It is one of the ten largest cities in the UK. The census showed that between 2001 and 2011 the number of people

Bristol has experienced massive population growth over the last 15 years, creating huge demand for new school places. This shows no signs of slowing down, with Bristol expected to grow to 500,000 people by 2027.

living in the city increased by almost 10 per cent to 428,100. The Office for National Statistics estimates that the population will continue to grow substantially, and predicts it will be over 500,000 by 2027.

The Local Education Partnership works together with the city council to look at population trends and anticipate where future demand for school places will be. A particular lack of places was recently identified in the south of the city, so 1,000 new primary places were created within a one mile-radius – all delivered on time in summer 2015.

By 2011, six entirely new secondary schools had been built, delivering a vastly improved learning environment for over 7,400 pupils. A further six secondary

schools were refurbished, creating modern, fit-for-purpose facilities for more than 5,100 secondary students. By 2015, nearly 8,000 new primary places had been created in 29 schools. Overall, nearly 50 schools have been built and improved over the last decade – with much more still to come.

These are very big numbers. Behind the simple statistics some fascinating stories emerge. A former police station has been re-imagined as a school. Classrooms were placed on the roof of Hannah More School to avoid building on its playing fields. The walls at May Park Primary were built from straw bales to create natural insulation.

Enhancing the classroom

The most important people are those who use the schools every day – the teachers and the pupils. The facilities need to be right for them.

Sue Willson is head teacher at Ashton Gate Primary where the former offices of Imperial Tobacco were converted into a new school for 420 pupils. She says: “This new school has enabled us to keep taking children from the local community. This area has a real community focus and all the local schools are a very important part of it. Having the space with this new building enables us to engage with the local community in so many ways. It has made a real difference.”

Simon Partridge, maths leader at Ashton Gate, says: “As a teacher, this new building has improved my ability to teach a class simply because we have so much more space. The children are very proud of their new school in their local area. Most of the children can walk here, or scoot or cycle.”



George Franks is Executive Principal at Oasis Academy, Marksbury Road, a new primary in one of Bristol’s most deprived areas and part of an urban renewal project: “Our school isn’t just about providing an education for children, it’s also about making sure the whole family feels involved and we build stronger communities together.”

“The children, parents and staff absolutely love the new Silver Birch annexe,” says Claire Banks, head teacher at St Werburgh’s Primary School. “Every day, parents and children stop me to express their

thanks and pleasure at the fantastic provision that is available to them now in their community.”

For the past decade results in Bristol have been on an upward trajectory with a 30 per cent increase in students achieving five or more GCSEs at grade A* to C, including English and maths, from 2004-2014.

So how do raised levels of educational attainment benefit Bristol as a whole? Paul Jacobs, Education Service Director at Bristol City Council explains. “It’s great to see the increased confidence



that Bristol parents have in the schools,” he says. “We’ve seen big improvements in Bristol parents choosing Bristol secondary schools and that has a big impact in terms of the economy. Bristol has a very vibrant economy and employers



Better classrooms contribute to an improved education. There was a 30 per cent increase in the number of students achieving five or more GCSEs grade A* to C between 2004 and 2014.

want to know if they’re attracting the best workforce into the city, that their families can access good-quality local schools.”

Putting children first

“The Local Education Partnership, Skanska and the council are working really well together,” Paul adds. “Projects are delivered on time and on budget which means children are moving into their new schools on time for the start of the academic year. As a council, we know that we have got enough school places. It’s a really trusting, mature relationship.”

Renewing the LEP agreement for a further five years in November 2015, Bristol’s then mayor George Ferguson said: “I’d like to emphasise the quality of the schools that I’ve had the good fortune to visit recently. I’ve heard from delighted parents, delighted pupils and I hope that quality will continue.”

“I was really pleasantly surprised working with Skanska,” concludes George Franks, “because I discovered that big business can have an ethos. In education, sometimes we feel it’s only us who has that, but it turns out they did as well.”



Carbon cutback

Anglian Water's **Andy Brown** explains why a low-carbon approach is a vital part of being a responsible business

Climate change is having an impact on sea levels, which are rising. Floods, like this one in Venice in 2015, are likely to become more common.

“We won't survive if we're not a sustainable business. As a company, we are completely reliant on natural resources,” says Andy Brown, Head of Sustainability at Anglian Water. “If we don't manage those in a sustainable way, we won't have a product to sell to customers in the future. And the environment is only one of three sustainability focus areas that we have. For us, sustainability is not a single thing, it is all encompassing, so it includes financial and human factors too, such as the community where we work.”

In 2010, Anglian Water launched its groundbreaking Love Every Drop business strategy with a number of bold sustainability goals. These included cutting carbon emissions by 10 per cent. “It was

“For us, sustainability is not a single thing, it is all encompassing.
”

a road to Damascus moment for us,” says Brown, alluding to the moment in the Bible when Saint Paul was converted to Christianity following a spiritual revelation. “The senior team at the time said we faced some huge challenges, including population growth and climate change, and we needed to fundamentally change how we do things in order to tackle those. We recognised the need to have sustainable business goals, rather than sustainable goals that were part of an overall business plan.”

The government says that the average temperature in the UK has risen by 1°C over the last 100 years. The presence of CO₂ and other gases in the atmosphere contributes to the ‘greenhouse effect’,

where the Sun's energy is prevented from leaving the Earth and reflected back, creating a warming effect. As the level of greenhouse gases in the atmosphere rises, so do temperatures. The CO₂ levels have risen by around 40 per cent since the industrial revolution, according to the government. The Met Office says that CO₂ can remain in the atmosphere for over 100 years.

"Climate change is a big issue for us, in two ways," comments Brown. "A big part of my role in the past has been to look at the impact of it, trying to understand how we need to adapt as a company to prepare for extreme weather events, such as droughts, floods and rising sea levels. This is so we can deliver the kind of security of supply that our customers expect. In turn, you can't manage the impact of

climate change if you don't recognise that you're having an impact on it as well. That means recognising that you play a part, albeit a small one, in affecting the climate and setting goals to reduce that impact.

"There are lots of ways that we, as a society, create carbon emissions. Direct emissions come when we burn fossil fuels, such as when we create electricity. When we produce things, such as concrete, we create carbon emissions at the point of manufacture. This is known as embodied carbon. Using fewer of these things, or using less carbon, means producing lower emissions, which means less CO₂ or other greenhouse gases in the atmosphere."

The 2008 Climate Change Act sets out a target to reduce the UK's

greenhouse gas emissions by at least 80 per cent by 2050, compared with the 1990 level. Construction 2025, the joint government and industry strategy, sets the industry a goal of reducing its greenhouse gas emissions by 50 per cent in eight years' time.

Brown agrees that setting ambitious targets is vital: "It was the target to reduce the amount of embodied carbon we use that was the biggest change for us. When I first heard about the aim of cutting this by 50 per cent in new buildings, I thought, this is a great aspirational target that we won't meet, but it will push us and we're not afraid to fail. I remember thinking, if we get 25 per cent or 30 per cent that would be a fantastic achievement. But we actually exceeded our 2015 target of 50 per cent by 4 per cent."

19cm

Level the oceans have risen over the last 100 years

£3.2bn

Potential annual financial cost of global climate change health problems after 2030



Andy Brown
Head of Sustainability at Anglian Water

In 2014, the UK produced just over 514 million tonnes of greenhouse gases. A significant amount of this is embodied carbon. Brown says: "Our director of asset management played a big role in reducing the amount of embodied carbon in Anglian Water's buildings. He said: 'If your building design doesn't meet the target take the plans away and think again'. The interesting thing was that reducing the amount of carbon we used actually started to make things cheaper, so there was an added business benefit.

"For example, if you have nuts and bolts, could we use slightly smaller ones which could save us 10 per cent carbon? Going further, do we need nuts and bolts at all? If you are building a treatment works, do you need to put everything within four walls? There could be a way of creating a new, different design which

cuts out carbon. If you still need to build something it's about finding the most efficient way of doing that."

The Energy Technologies Institute, a partnership between the government and global energy and engineering companies, says innovation is crucial to the UK meeting its carbon targets. Brown agrees: "It's central to our approach, together with collaboration

with the supply chain. We started to find that our suppliers would compete with each other to deliver the best solution, which also helped us.

"Tanks for treated water are a great example of this. Standard ones are made of concrete and built on site in the most carbon-intensive way. Plastic tube tanks would meet our needs and cut carbon, so let's use them.

But our concrete suppliers said: 'Hang on, what about prefabricated low-carbon concrete tanks which we could build in a factory, and you put together on site? That would cut the amount of carbon a bit more.' In turn, the plastic tank suppliers responded: 'Are you using carbon in the way you are installing the tank? Could we design a different method that cuts out even more carbon?'"

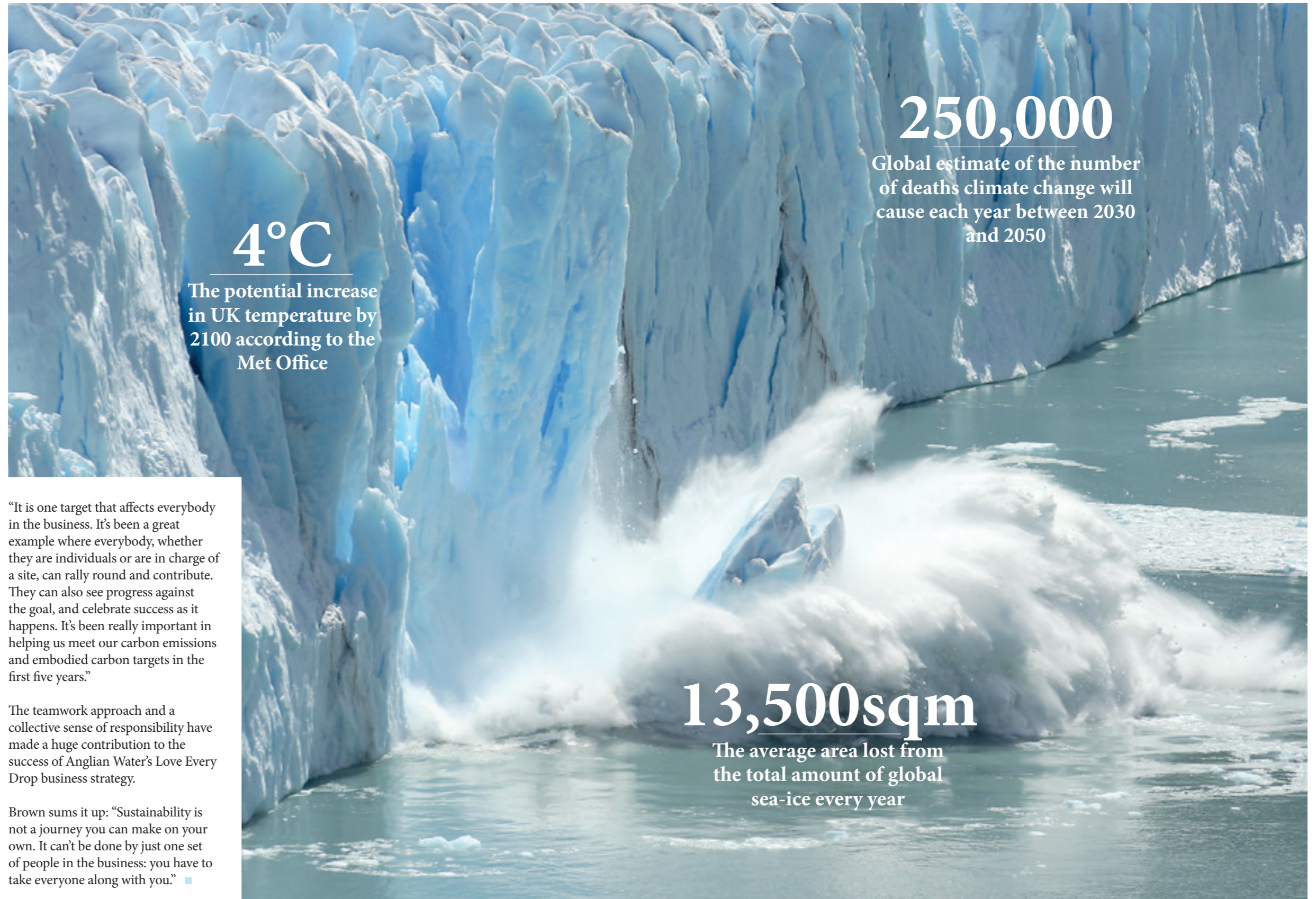
The UK aims to increase the amount of electricity generated from renewable sources to 30 per cent by 2020. Energy UK, which represents the power industry, says renewable energy will play an important part of the future strategy to cut the country's carbon emissions.

"Reducing our energy usage and increasing the amount of sustainable power we generate are two key goals. We are one of the largest users of electricity in the east of England, and it's our second-biggest cost, after employees," comments Brown.

"Anglian Water has a vast number of combined heat and power plants, and we also use a small amount of wind and solar power. We produce about 112 gigawatt hours of electricity a year, which is about 16 per cent of our power usage."

The Committee on Climate Change, an independent body set up by the government, says energy efficiency will play a significant role in reducing the UK's carbon emissions. Brown says it is one of Anglian's top priorities: "We have an energy team with champions who are going out and working with operational teams to see how they can deliver savings, which might mean investing first."

Brown says everyone is involved in the energy-efficiency programme:



4°C

The potential increase in UK temperature by 2100 according to the Met Office

250,000

Global estimate of the number of deaths climate change will cause each year between 2030 and 2050

13,500sqm

The average area lost from the total amount of global sea-ice every year

"It is one target that affects everybody in the business. It's been a great example where everybody, whether they are individuals or are in charge of a site, can rally round and contribute. They can also see progress against the goal, and celebrate success as it happens. It's been really important in helping us meet our carbon emissions and embodied carbon targets in the first five years."

The teamwork approach and a collective sense of responsibility have made a huge contribution to the success of Anglian Water's Love Every Drop business strategy.

Brown sums it up: "Sustainability is not a journey you can make on your own. It can't be done by just one set of people in the business: you have to take everyone along with you." ■



Salford Quays, Manchester

The area has been completely transformed as part of a £500 million investment project.

Experts predict new transport links will bring in further investment projects like this into the north of England.

Northern renaissance



Opinion: The chair of Transport for the North **John Cridland** says the regeneration of transport links in the north of England will lead to huge social and economic benefits

It's time to focus on developing an integrated transport network in the north of England, says the chair of Transport for the North John Cridland. The former Director General of the Confederation of British Industry says a holistic solution – of a kind we haven't seen before – is needed.

Transport for the North was formed in 2014, with the aim of improving road and rail connections in the north of England. It brings together representatives from local authorities, local enterprise partnerships and organisations such as Highways England and Network Rail. It will become a statutory body in 2017, with legal powers to help it deliver its goals.

Taking a holistic approach is vital, says Cridland: “We're looking at this through a one-north lens, and that's

a dimension that I believe has been missing. Clearly, the Department for Transport, Highways England, Network Rail and HS2 have been working in partnership with local authorities and transport authorities. But each of those authorities has been talking about its own area, and it's been left to truly national bodies, such as the Department for Transport, to make judgements about what's good for the country as a whole. I think the missing ingredient has been looking at the north as a community of 16 million people – which is clearly a lot bigger than the individual local authorities or city regions.

“The current northern transport network limits the ability of workers to commute to better-paid jobs that are developing as a result of economic growth. It also limits the ability of entrepreneurs to be more innovative in the markets they're trying to reach. The principle reason is that the cities in the north are quite



modestly sized by internationally competitive standards. But if you took Liverpool, Manchester, Leeds, Sheffield and Newcastle together you would have something equivalent to the world's leading economic regions.”

Reducing the economic gap

The Office of National Statistics says the combined economic output of the north-east, north-west and Yorkshire and the Humber was £304 billion in 2014. That equates to 19.1 per cent of the UK's total output. London's output was £364 billion, which is 22.9 per cent.

Economic growth in the north is far behind that of London and the south-east. Between 2010 and 2014, London's output grew at a rate of 24 per cent, well above the UK average of 16 per cent. The south-east was next, at 16.6 per cent. But the north of England experienced below average growth. In Yorkshire and the Humber, for example, it was just 10.7 per cent. Economic growth per head in the north is also much lower. In 2014, the average for the north was £19,155 while in London it was £40,516.



The figures paint a picture of a region struggling to meet its full potential. Research, commissioned by Transport for the North, shows that some of the most important factors that cause this gap are lack of skills, lower comparative levels of technology and investment together with poor connectivity and transport.

“There's a productivity and economic gap in the north and transport is one of the factors in that gap,” adds Cridland. “It's quite hard to say how big an issue it is compared with other factors. So, if you take education,

clearly performance and standards are a key factor in the gap. Personally, I think we need to look at transport as a means to an end, rather than being an end in itself.

“Weak transport links prevent people getting better jobs, but in part it's also about weak employability. Improved education will help enable people to get better jobs, but not without better transport links.”

Mapping out the future

The sheer size of the north creates another issue, when it comes to the



Infrastructure investment

Transport for the North aims to transform east-west connectivity in the region.

The aim is to create better links between cities like Liverpool and Hull.

It is estimated that better road and rail links will increase economic growth by 4 per cent by 2020.

challenge of improving its transport links. The north has an area of over 15,000 square miles, while London is only just over 600 square miles. The Office for National Statistics says there are just over 53,000 miles of roads in the north, while in London the figure is just under 9,200 miles.

Cridland agrees that geography is an important factor:

“The relative weakness of transport links between Liverpool and Manchester on one side of the Pennines and Leeds and Sheffield on the other is a factor which is distinctly northern. So, a relatively small proportion of those in Sheffield are able to work outside of that area, and a very small number are able to cross the Pennines.

“For somebody in Manchester, to take advantage of the high-quality financial services jobs which are growing in Leeds, the travelling distance isn't much different from west to east London. But a daily commute across the Pennines is still quite exacting. Another factor is that the strongest transport links are between the north and south of the region – not east and west – because they're part of UK-wide arterial connections.

“Links between the east and the west haven't received the same level of investment over a generation as between the north and the south. You need to link up the Port of Liverpool with the Port of Hull for commuters and entrepreneurs.”

Getting on track

Currently, it takes around 55 minutes by train to get from Leeds to Manchester. Transport for the North wants to cut that to 30 minutes, with six services an hour. It wants to significantly cut rail travel times

across the region, improving the links between Manchester, Liverpool, Sheffield, Leeds, Newcastle and Hull.

Network Rail is already investing £1 billion in its Northern Hub project, which is designed to improve rail links in the region. It estimates that this scheme alone will bring around £4 billion of economic benefits to the area, and help to create 20,000 to 30,000 jobs.

“Another important priority is to exploit the advantages of HS2,” comments Cridland. “If you think of it as a north-south link, it’s effectively a Y-shape at the northern end, with a high-speed link to Manchester and one to Leeds. To create the economic benefits for workers and entrepreneurs you need to connect the ends of that Y-shape together.”

The government estimates that it will cost over £40 billion to build both phases of the HS2 high-speed rail link. KMPG suggests that the scheme will increase economic output by £15 billion annually. The Core Cities Group, which represents



a number of cities in the UK, suggests that HS2 will support 400,000 jobs, once it is complete.

Driving success

Roads are just as important as rail for Cridland: “There is clearly a weakness in terms of east-west travel, because there isn’t an alternative to the M62, of motorway standard, between Birmingham and Glasgow. The M62 goes across the top of the Pennines, and there are resilience and capacity issues there. I think

we need to provide more capacity on the M62, which requires it to become a smart motorway. I also think there need to be practical alternatives to the route. That’s why we’ve got feasibility studies looking at a trans-Pennine tunnel and upgrades to trunk roads such as the A66 and A69, which are further north.

“We’re also looking at improving the north-west quadrant of the M60 in Manchester, which is a particular pinch point because it’s where the motorway crosses the M62 and links through to the M61, so there’s a lot of traffic.”

The real prize

The government has announced it plans to spend a total of £100 billion on infrastructure by 2020-21. It is also changing its approach to infrastructure investment and maintenance. Moves such as establishing Highways England, which has greater autonomy than its predecessor the Highways Agency, show a commitment towards a more long-term approach.

Cridland supports that move: “It’s particularly critical that we take a



much longer-term view towards investment and infrastructure. We have a 30-year strategy to close the gap between the north and the rest of the country, and transport investment needs to be sustained over a prolonged period.

“Five-year planning phases have great benefits, enabling us to have a credible national infrastructure plan with a pipeline of work for companies. If anything, those plans need to be lengthened and become rolling plans, rather than everything be seen in a five-year planning frame.

“I think the most exciting recent development is the formation of the

National Infrastructure Commission. One of the first things its chair, Lord Adonis, was asked to do for the 2016 budget was to look at what is needed to be done in the long term to enhance the northern powerhouse. That’s hugely helpful.

“It has to be about transport for a purpose. For an entrepreneur, it’s about getting their goods or services to the market. The reason for improved transport links to our northern ports, such as those in Teesside, Immingham, Hull and Liverpool, is ultimately about being able to better serve a market in China or East Asia. International connectivity flows from a better northern transport strategy.



“Our comprehensive economic strategy for the north of England says we could add nearly £100 billion to the northern economy by 2050 if it grew at the same rate as the English economy as a whole. That’s the real prize for the north, with transport one of the most important factors.” ■



Smart thinking

Opinion: Skanska's director of innovation and industrialisation **Sam Stacey** says new technology will play a crucial role in tackling the world's problems

Photography DAQRI (daqri.com)

Innovation and new technology will help us improve society. I think it's vital the construction industry leaves a positive legacy. This ties in with Skanska's purpose: 'we build for a better society'. We have to help society overcome its challenges.

New solutions, driven by technology, will bring a fundamentally different approach to tackling today's challenges. There is huge potential for radical improvements. Data will underpin everything. Our industry is very complex, much more so than other controlled environments such as a car factory. By changing the way we collect and use data, we can have a huge impact on productivity.

The foundations for change are being laid. Building information modelling (BIM) is a fundamental part of that. BIM is essentially about data. The level-two requirement for public-sector work creates a great basis for the whole industry to grow and improve.

The internet of things – where everything from boilers to a building's components are linked to a computer network – is marvellous for construction and maintenance. It allows information to be collected from things that are in different locations. We need to know where our components are and what's

From smart helmets to artificial intelligence and 3D printing, a technological revolution is underway that will transform the solutions to society's challenges.

happening to them. Ideally, sensors and transmitters would be incorporated at the production stage of components. It has the potential to provide information throughout its entire lifecycle.

We can also use innovation and new technology to help overcome the productivity gap between construction and other industries. In construction, lots of time is spent on non-productive activities. These could range from fixing defects to double-handling – moving equipment or plant more than necessary. The amount of productive time is, on average, less than 50 per cent. In manufacturing, that figure is closer to 90 per cent.

The amount of materials used to construct buildings can be significantly reduced by using new techniques. We also know buildings can be managed much more efficiently. For example, the amount of energy needed to maintain and run them can be cut. These developments have a positive impact on both productivity and the environment, so there is a double-win.

A multidisciplinary approach can deliver innovations and technology. It's the fundamental basis of creativity. People who have studied creativity say it's to do with being able to make connections with different things. Construction companies, architects, academics and scientists getting together will lead to breakthroughs.

There is a tremendous amount of convergence of technology from different industries. An enormous amount of research has been done in other sectors. Without a doubt, we have to learn from those.

Manufacturing is a good example, where we can apply their approach to the construction sector to make productivity gains. If we are going to stay ahead of the game, it's essential that we spread our net very widely.

Construction is now in a position to leap-frog other industries. I think you'll see a period of significant change in construction, while other industries will experience much smaller changes over the same

mass-customise things that you can't do cost effectively by other means. The value of that is that you can make components that are suited to a precise instance. This could be the orientation, the angle of the light, or the level of insulation needed on a particular floor.

You can also make continuously varying shapes as efficiently as standard ones, which opens up



Sam Stacey, Director of innovation and industrialisation

Innovation and collaboration are at the heart of the solutions we need

period. This is because of the impact of several emerging technologies on our industry.

Skanska is involved in a partnership with a number of other companies, organisations and a university to develop 3D concrete printing. It has huge potential for the construction industry. It blows away lots of the industry's traditional constraints.

You can make complex shapes extremely efficiently, and you can

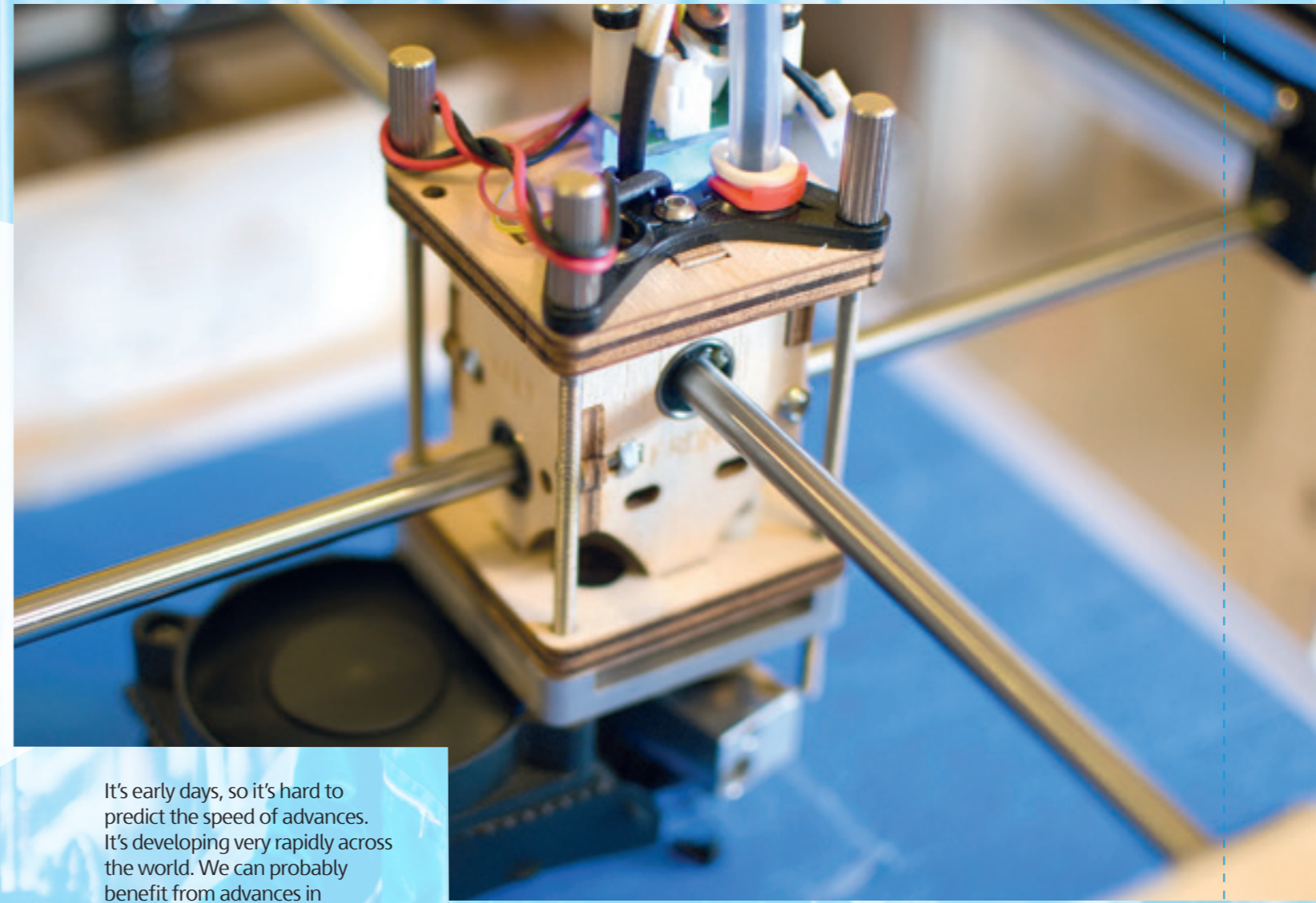
opportunities for designers and architects. Plus, the whole process cuts down on waste because you only use the materials you need.

Artificial intelligence has a part to play in transforming the industry. Take the technology behind firms like Uber. You've got a platform that's tremendously good at mobilising drivers and matching them with people who want to travel. It's cut through an incredible amount of waste and inefficiency in the transport sector. That kind of thing could be enormously helpful for the construction industry.

As time goes on, we'll be able to use artificial intelligence to analyse data to come up with the best solutions and approaches.

Construction 2025

New technology will help the industry to meet three of its key targets: 33 per cent lower costs, 50 per cent faster delivery and 50 per cent lower emissions.

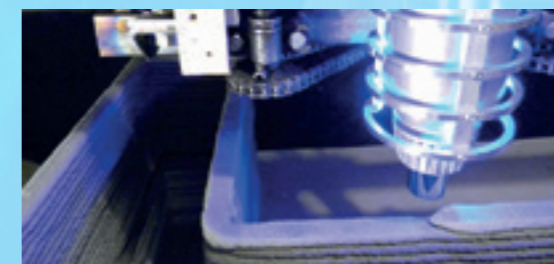


Concrete printing photography Rudenko 3D Printer (totalkustom.com)

It's early days, so it's hard to predict the speed of advances. It's developing very rapidly across the world. We can probably benefit from advances in unexpected areas.

The pace of change is accelerating, and the world is getting better at innovation. The floodgates have opened up to allow technology from a vast range of different areas to be exploited.

This means there are lots of opportunities for construction companies. Those that are intelligent about embracing those opportunities will thrive. Those that bury their heads in the sand and continue to use traditional methods will fall behind dramatically. ■



3D concrete printing is set to revolutionise the construction industry creating huge productivity and sustainability gains.

No small change

Natural capital is revolutionising National Grid's approach to sustainability, says **Steven Thompson**

"Sustainability is fundamental," says sustainability manager Steven Thompson at National Grid.

"At the top of our organisation there is a recognition that, as a top FTSE company, you have to be a responsible business. Sustainability is a key part of that. Our stakeholders and investors expect it."

Thompson believes that a concept called natural capital has a part to play: "It puts things into pounds and pence, a language that everyone can understand. It allows you to understand the benefits of nature. Then you are in a position to look at increasing that area's natural capital. Nature provides us with things. This could be clean air or water

and even natural flood defences. It could include pollination by insects. We call these ecosystem services. Natural capital is the value of those services to society, communities and our stakeholders."

The Natural Capital Coalition says we are using natural resources faster than the planet can replenish. It says we need to conserve and enhance natural capital.

Thompson agrees: "We need to look at natural capital in the same way as intellectual or financial capital. There are benefits to assessing the value of what nature provides us."

This approach requires new ways of thinking, says Thompson: "For example, we would traditionally cut

Trees reduce CO₂ in the air by creating oxygen. They also provide natural flood and weather defences.

Insects are a vital part of natural ecosystems and have a huge impact on the human economy through pollination. This directly affects crop yields.

Natural resources are being used up faster than they are being replenished. As many as 2,000 species face extinction every year.

15 billion
A global estimate of the number of trees cut down every year.

£4.51 billion
Value of pollution absorption by vegetation (2012)

£600 million
The average annual value of bee pollination to the UK economy

117 kg
The average amount of oxygen produced annually by a tree

A new kind of currency: measuring nature's value

Natural capital is a way of putting a value on the benefits we get from natural resources. It provides a unified way of assessing a diverse range of ecosystem services. It puts a financial value on these services.





“Natural capital is the value of those services to society, communities and our stakeholders.”



“We need to look at natural capital in the same way as intellectual or financial capital.”



work with these organisations to ensure we can further develop it.”

Thompson says increasing natural capital increases the bottom line: “There are tangible benefits. These could be lower maintenance costs or new income streams. There is also a strong correlation between reducing carbon and cutting costs, being more efficient with your use of materials and operational energy. We know there will be more pressure on companies in future to think more sustainably and cut carbon emissions, so thinking about things today can help.

the grass at sites to keep things neat and tidy. But there might not be any benefit in it looking nice. Do we have to cut the grass, or could we let it grow and turn it into a wildflower meadow that might attract bees and butterflies? That would increase the amount of pollination services. There could be a local community that would benefit from some recreational space. Some of that land could be used for grazing and we could lease it out to a local farmer.

“We use a valuation tool to assess each site. It uses information from a number of different sources. This gives us a robust baseline to work from. We’ll identify a site where there’s some potential. Then we’ll look at increasing the natural capital for that site. It’s moved beyond the

pilot stage. We’re well on the way to having action plans in place for 50 sites by 2020. With sites that are being developed, or are under construction, we want to start thinking about natural capital from the beginning. As a general rule, the earlier you start to think about sustainability, the greener the result.”

Collaboration and working with the community are vital, says Thompson: “We work closely with a range of organisations to develop our natural capital plans, such as the Wildlife Trust, Natural England and the Royal Society for the Protection of Birds. There are some really positive benefits to this approach. It helps us to build better relationships and people understand that we care. In particular the electricity network is expanding, and we’ll need to

“We’re thinking about how we can use natural capital in the medium to long term. Our network is linear in nature. You can see our pylons and overhead lines across the countryside. We have a concept called natural grid. It’s the idea of creating biodiverse, wildlife corridors by connecting linear infrastructure. We also want to create green infrastructure.”

It’s all about culture change, adds Thompson. “I think the advantage of the natural capital approach is that you can tap into people’s personal values and they see this as an opportunity. You’ve got a passion for the environment, but how can you get involved at work? People can start to see how they can bring that into the workplace. That’s when you get the buy in. Then you get real change.” ■

A helping hand

Charity worker **Gary Davidge** talks to *Upfront* editor **Richard Saw** about volunteers who play a key role in making a real difference to the lives of homeless people and those with addictions

There's a real buzz in the tiny café, which is right in the middle of trendy Shoreditch. I'm at the Paper and Cup at lunchtime, drinking a cup of tea in the alcove at the back, while looking at a shelf full of books. It's a place where you can get a good read, as well as a drink or a bite to eat. The clientele is mainly young people who look like university students. But this is no ordinary café.

I'm with Gary Davidge from the Spitalfields Crypt Trust, a charity that helps the homeless and people recovering from addiction. The café we're in is run by the trust as a social enterprise. The aim is to give recovering addicts and the long-term unemployed the chance to work. The trust is based in east London and was founded in 1965. It runs a range of facilities, including a drop-in centre and a rehabilitation hostel.

Every Thursday morning, a number of volunteers from Skanska help the trust by cooking breakfasts for homeless people at the drop-in centre. The trust relies heavily on volunteers, from a range of organisations, to help it provide services like these.

I ask Davidge about his role, while he sips coffee: "I'm a project manager and I look after the drop-in centre. We're in the front line. The drop-in centre helps between 600 and 700 people every year. Around 80 per cent of the people I deal with have an addiction of some sort. About half of them are homeless."

Homelessness is on the rise in London, and has been for a number of years. The Greater London Authority says 8,096 people were sleeping rough in the city in 2015/16. This is a 7 per cent rise compared with 2014/15. The number of



“Addiction is emotional and physical: it’s everything in one. A good friend of mine, who’s in recovery, described his addiction like a bad marriage. You’re in love with this thing, but it hurts and there’s still that connectedness with it.”



homeless people in London has more than doubled since 2009/2010 when the figure was 3,673.

“I think the homelessness situation is getting a lot worse. There are so many people. If you look at the trust, we’re stretching ourselves beyond what is normal. I went to a place that is similar to ours, just outside of London. Their project helps out a total of 50 people in the entire town: I have 50 people in one day for one session. When you put it in that perspective, the trust needs more capacity to grow and we also need other charities to be involved.”

Davidge tells me that there is often a link between homelessness and addiction: “Around 40 per cent of the people that come in are from eastern Europe, who have no right to access public funds. They were working in the construction industry in around 2008 and lost their jobs. Then they can’t pay their rent, so they end up on the street. Because of their situation, they find they need two or three drinks to get to sleep at night. After a few weeks,

it becomes three or four drinks then five or six. Then they find they have to have a drink in the morning, to calm the hangover down. Within a year, they’re alcoholics and can’t live without a drink.”

Public Health England, a government agency that exists to improve people’s health and wellbeing, estimates that 2 million people in England are dependent on either drugs or alcohol. Figures suggest there could be as many as 290,000 people in England addicted to opiate-related drugs or crack cocaine.

Davidge told me that some people don’t have a chance: “They are brought up in families with addicts, so they’ve never known anyone who isn’t on that road and that’s what makes it difficult to get people into recovery.

“I don’t know if there’s anything in life that would be as difficult as giving up an addiction. I’ve experienced the effects of addiction. While I’ve never been an addict,

I’ve got family members who are. Here’s a rough analogy of what it’s like to give up an addiction. I heard on the radio that people under 30 check their mobile phones to look at social media around 85 times a day. If you took away their phone and said ‘you can never go on the internet again’ when everyone else is online, that might describe the first five to 10 per cent of what it is like to recover from an addiction.

“Addiction is emotional and physical: it’s everything in one. A good friend of mine, who’s in recovery, described his addiction like a bad marriage. You’re in love with this thing, but it hurts and there’s still that connectedness with it.”

The tough subjects we are talking about are in stark contrast to the happy, vibrant atmosphere of the café. But there’s a link between



the two things and that revolves around treatment and recovery. A large part of the trust’s work is about helping people to reintegrate into society. Working in the café, in a safe environment, can help them do that.

Davidge continues, over his drink: “We also run pre-abstinence

classes. Each one has about five or six people in it, all of whom have an addiction. Some people might be in recovery, others might have admitted they have an addiction but are still working towards recovery: they might have a relapse once a week or every couple of weeks. Other people might not recognise they have an addiction.

“It starts off with a discussion of how the week has been: the highs and lows. Eventually the subject turns to addiction and recovery. The idea is for people to realise that they have an addiction, that we don’t need to tell them. Sometimes, if you tell someone they have an addiction that’s another six months where they won’t admit they’re an addict and be in a position to take the first steps towards recovery.

“It takes time to get people off the streets. If someone walks through my door today, it could take three months or longer before they get a place in a hostel. I filled in a couple of referrals a while ago and the

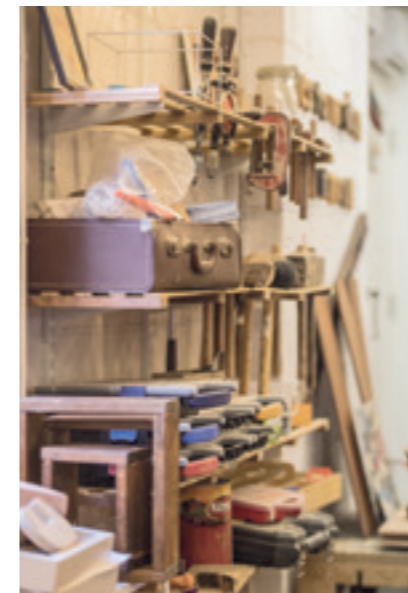
hostels sent them back, saying their waiting lists were full. If it’s between November and June, the night shelter in Tower Hamlets is open. I’ll ring them and see if they have a space. If they do, I’ll reserve it and the person will have somewhere to sleep that night.”

Education is also important, says Davidge: “Under the new benefits system, everything has to be done

The Spitalfields Crypt Trust was formed in 1965 to help homeless alcoholic men.

Now it provides a range of services for men and women. It has a drop-in centre for homeless people and provides residential rehabilitation treatment for alcoholics and drug addicts. The charity also offers training courses.

It runs a number of social enterprises, including The Paper Cup café and the Restoration Station, restoring old furniture.



online and some people have never looked at a computer before. Today, I was showing someone how to use a computer. He's got a little Android tablet, like an iPad. He couldn't even turn it on. That's the level of skill that people have, so we're teaching people at a very basic level."

The drop-in centre relies heavily on volunteers in order to provide a range of activities. I've been to one of the weekly breakfasts the trust cooks on a Thursday, helping to make a film, so I know just how important it is to people. Davidge agrees: "This could be the only good meal that people get to eat that week. The cup of tea could be their only non-alcoholic drink of the day. We do a full fried breakfast with sausage, bacon, eggs, beans and hash browns. I think it's a better meal than you could get at a lot of places. I try to make it fun for the volunteers. They're involved in everything we do."

Davidge also says the benefits of volunteering go beyond the work the volunteers do for the trust: "It's a chance to change the mind-set of the volunteers. They get the opportunity to see what's happening, to meet a real person and see why they are there rather than just watch a TV programme about the issue. If we can change an individual who comes and sees the drop-in centre, then society also begins to change. But it's also good for the homeless people: they get to meet people who work in an office or on a building site. It helps to break down their stereotypes too. As there is an interchange, the two groups draw together."

"What I often say to people is: there's a reason for your situation, but don't use that as an excuse. Maybe you did suffer, for example, abuse as a child or became addicted to drugs during a hard time."

There's a good reason why you're in a difficult situation, but that's not an excuse to stay there."

Davidge and I have a conversation: I would like to meet some homeless people to hear first-hand what it is like to be on the streets. He has a couple of people in mind, who would be happy to talk, if I come back in a week or so. It is a sensitive subject. Many people who use the drop-in centre don't want to talk about their situation. In some cases, even their families do not know they are homeless or addicts. Some have been socially isolated for years so even holding a simple conversation is hard for them.

The drop-in centre is down a quiet residential street in Shoreditch and you'd never know it was there unless you'd been told where it is. Even the entrance is tucked away in a small square, just off the street.

I meet Davidge in the kitchen, a hive of activity where food is being prepared for homeless people. He guides us to a small office, just off the main hall, where I meet Paul and then Aidan.

"The trust has been a godsend," says Paul, who has been homeless for two years. "You're still in shock when you become homeless. It's very, very bad. You've got a sleeping

bag, and are getting over throwing all your dearest possessions away – which you say you'll never do. Once you finally get there, you're at the bottom: you're only going back up. It's doable, but it's mega-hard. The summer's alright, but winter is an absolute, utter, nightmare.

"Sometime you go to places, and everybody's stuck in this tick-box, one-size-fits-all mentality. I don't drink or do drugs: I had a mental health breakdown, so my problem was a bit different.

"I know this may sound very, very funny, but sometimes it's about coming here to get a very good meal, which will probably be the one decent meal you'll get, because you end up getting a lot of sandwiches. One decent meal a day will put the smile on someone's face, or perhaps help set them up to speak to somebody at the job centre or maybe make a tough decision: like going into rehab."

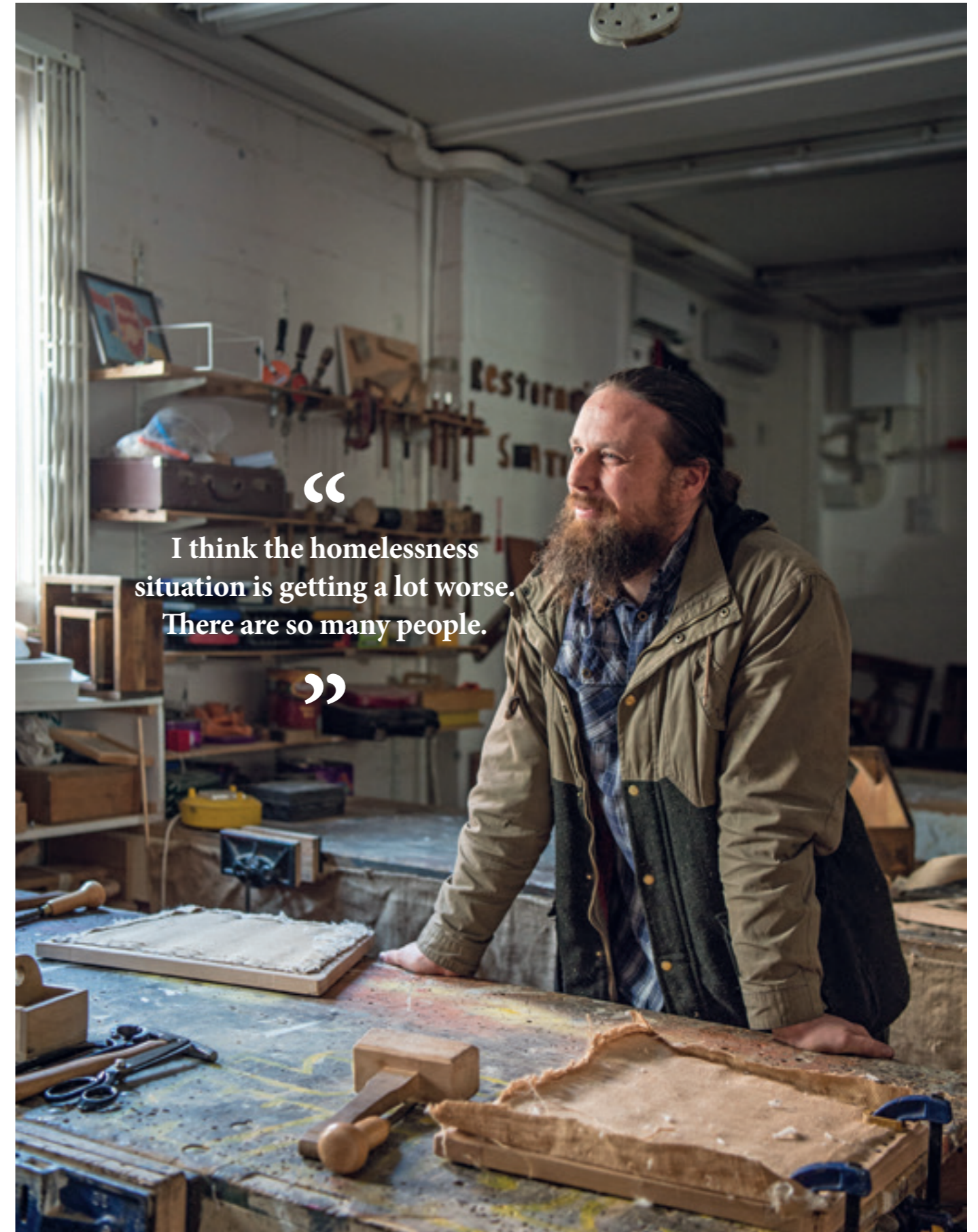
With the help of the trust, Paul has now secured himself somewhere to live and a job.

"When someone hears you're an addict, their demeanour and attitude changes completely," says Aidan, who is on a treatment programme for people with heroin or cocaine addictions. He's also been homeless in both London and Dublin.

I asked Aidan to tell me what being on the streets was like: "It's hell, absolute hell. You go to sleep, not knowing if you'll be attacked overnight."

Aidan praised the work of the trust: "It's extremely important, because some people don't have any money to buy food. Since my last relapse, I ended up being in debt. And I'm still paying that back now. That affects how much you can spend on food."

My conversations have left me with a lot to think about. Back at the café, I remember that Davidge told me that people's perceptions of homeless people and addicts are sometimes a barrier and can prevent them getting help: "There's a big difference in how people treat you if you have, say, an addiction if you're a celebrity or are wealthy, compared with how we view poor people. I think we need to tackle that view. I think it's a subconscious thing that has gone on since the beginning of time. I struggle to think it would change: but I live every day for the thought that it might." ■



“
I think the homelessness
situation is getting a lot worse.
There are so many people.
”

Green aspirations

Opinion: The chief executive of Open-City **Rory Olcayto** explains why sustainability is so important for London

London thrives on reinvention. It's why you can find it at the centre of things, some two millennia after it was founded. But we need to approach sustainability in a new way if London is to retain its appeal. We need to think of sustainability – and the city – in terms of people, what they do day-to-day, and design places that make their lives easier to live.

For me, making the city more sustainable would be to increase the opportunity for more Londoners to have a decent lifestyle. Every neighbourhood should have access to a swimming pool, library, a park and easy-to-use sports facilities. I think this is what cities are for: by concentrating people together, you can share resources more effectively.

Open spaces and green spaces are really important. I think you'd be



Rory Olcayto
Chief Executive
Open-City

surprised at the simple things that people want in their neighbourhood. We have a manifesto for young Londoners, called 'My City Too', and they said they wanted wider pavements and better street lighting, to make them feel safer.

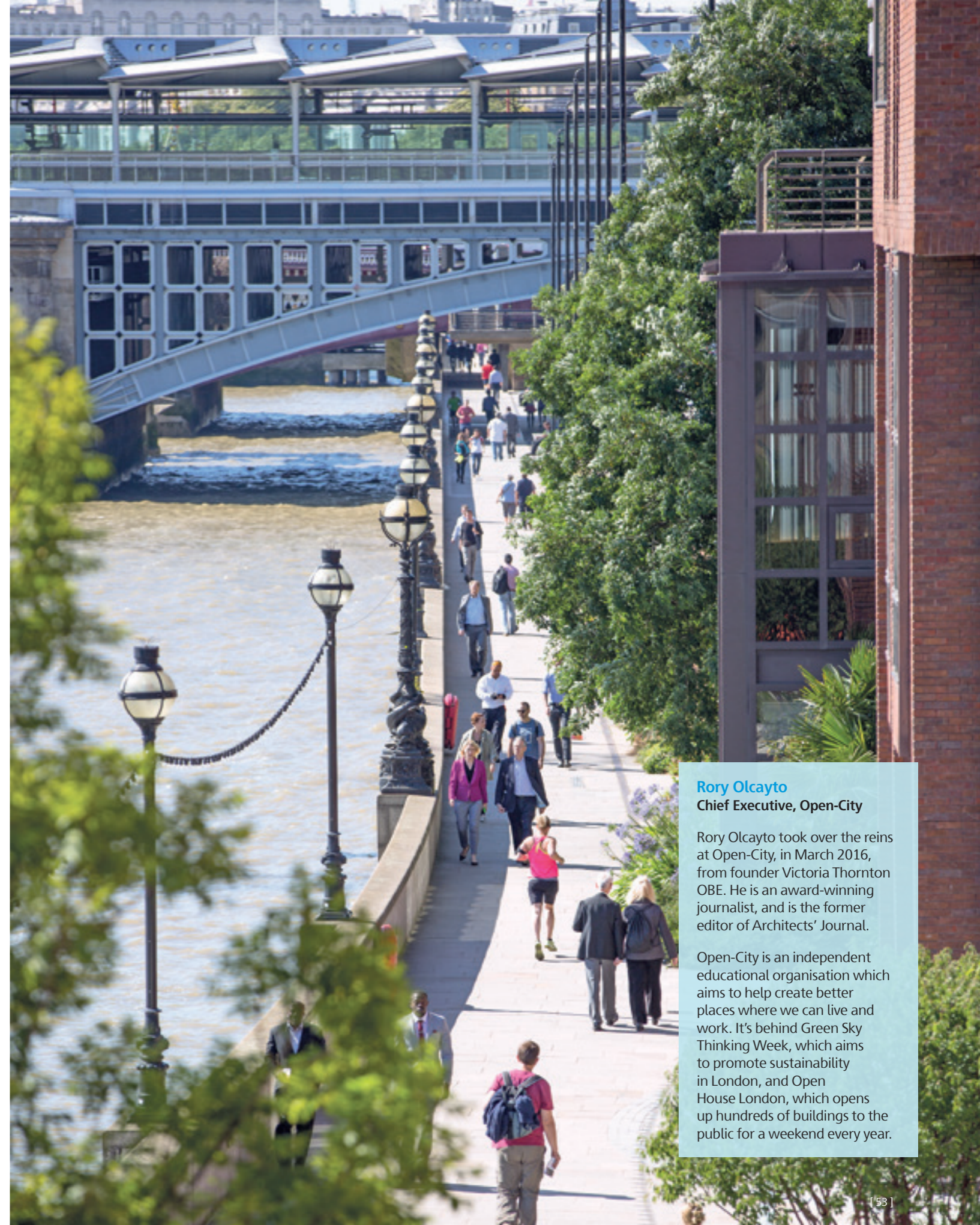
I think sustainability has been very successful, but part of its problem is that it's been a very techno-centric movement: a bit lifeless and nerdy. People don't tend to get excited about it, unless they're sustainability professionals. I think that's a shame. It's seen as a mixture of modernism and high-tech reborn, in a slightly boring way. It could be much more than that.

I also think it's important that we don't just build for the client: we also need to build for London. The Cheesegrater at 122 Leadenhall Street is an example on a really large scale. British Land has elevated the ground floor and created a privately owned public square underneath the building. I think it's an interesting and positive way of dealing with the city. Who knows what may develop out of that?

I like thinking of London as an enormous park or forest that's dotted with the built environment: it's an incredibly green place. I think the seeds of a new London are there. Lots of people do try and be healthy and there are lots of cyclists. Green areas, such as Walthamstow marshes, are being made more accessible, and things such as the Queen Elizabeth Park are fantastic.

So, we're making moves in the right direction. But so much of this is beyond the construction industry's ability to control. Politics is very important. Look at plastic bags. A charge of 5p per plastic bag has seen an 85 per cent reduction in their usage. That's phenomenal.

Open is a word that's very important right now. Here at Open-City, we're very much on the side of open. We believe in diversity, opportunities, access for all, and participation. We support that view of London. We're very happy that the Mayor of London, Sadiq Khan, has adopted the phrase 'London is open', because we've been saying that for the last 25 years. ■



Rory Olcayto Chief Executive, Open-City

Rory Olcayto took over the reins at Open-City, in March 2016, from founder Victoria Thornton OBE. He is an award-winning journalist, and is the former editor of Architects' Journal.

Open-City is an independent educational organisation which aims to help create better places where we can live and work. It's behind Green Sky Thinking Week, which aims to promote sustainability in London, and Open House London, which opens up hundreds of buildings to the public for a weekend every year.



What's next...?

The next edition of *Upfront* will look at how the construction industry can meet the productivity challenge. New technology has a big part to play in transforming the whole industry and we will be exploring how innovation is changing the sector.

Urban Cabin, in the Netherlands, is a structure of the future. It's made using 3D printing and is composed of bio-plastic, so the whole building can be recycled. Although the technology is in its infancy it could revolutionise the construction industry.



Healthy and sustainable workplaces, with a positive legacy

Skanska is both developer and constructor of **The Monument Building**, in the heart of the city of London.

It creates a stunning backdrop to The Monument, the famous landmark that commemorates the Great Fire of London in 1666.

This ten-storey building has a range of environmental and sustainable features. It's designed to meet the BREEAM excellent environmental standard and has a green roof, solar panels and an intelligent lighting control system.