ADJACENT LOCAL GOVERNMENT

February 2014

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Foreword

Hilary Benn MP
Shadow Secretary of State for Communities and Local Government
Labour Party

The communities in which we all live and work are facing enormous social, economic, and environmental changes. If we are going to deal with these and build a sustainable future, we have to do things differently.

First, we have to change the way in which public money is spent on the services we all value and rely on. We need to get money out of Whitehall and down to communities where it can be used to best effect.

Secondly, we need to devolve to councils and groups of councils – like the combined authorities and city regions – more powers over transport investment, planning, skills, and finding jobs for the long-term unemployed.

Thirdly, we have to address the crisis of confidence, and alienation, there is in our politics. The global economic crash came as a great shock, living standards have fallen, parents think about pensions, or the environment and wonder whether the future for their children will be better than the life they have enjoyed, and many people feel that too many decisions are taken too far away from them. To rebuild confidence in the power of people working together to create something better – the thing we call politics – we must give people the power to do precisely that for themselves.

For too long, we have fallen prey to consumerist politics – people demanding of government and then sitting back to wait for things to happen. The changes we need must be based on the idea of contributory politics – it's up to all of us to put something in because by taking responsibility we can take back power over our own lives.

Take housebuilding, which is at the lowest level under any peacetime government since the 1920s. The huge shortage in the number of houses being built is at the heart of the cost of living crisis. Home ownership is falling and house prices are racing ahead of earnings. In the 1990s, an average person setting aside 5% of their income each week could save up for a deposit on a house after 8 years, but now it would take the same person 47 years. Private sector rents are rising twice as fast as wages.

As a nation we simply can't go on like this. We need to get building. And so, we can't carry on with people saying on the one hand "where are the homes for the next generation?" and on the other, "please don't build them near me". Local councils and local people must take responsibility for making sure that we have the homes required to meet the local need and the local community should decide where they go. But local authorities also need power to ensure the homes get built.

That's why we will encourage councils to build more homes. And it's why we will empower councils to tackle landbanking and support small builders to increase competition in the industry.

That's what Labour's One Nation idea is all about. Reform to tackle vested interests. Getting finance to encourage and support innovation and a longer term view. Pushing power and responsibility down to communities so that people locally can build the homes they need, tackle the proliferation of payday lenders and betting shops that are strangling their local high street, and generate renewable energy to protect the climate and the natural environment which is essential to our very existence.

Our history and our own experience teaches us that with political will, good leadership and confidence, we can achieve an enormous amount, even when times are tough. That is certainly true of local government which was born in adversity and has grown into what I call an ocean of innovation.

Victorian Britain saw people of civic mind and civic virtue lead the way. They brought gas and electricity to communities. They created the first public parks. They built homes, and they provided the clean water and the sewers that did more than anything else to beat disease and increase the life expectancy of our forebears. They didn't wait to be told what to do by the latest circular. They looked around, saw the problems, and as local communities they got on with it. We need that kind of thinking if we are to meet the great new challenges of our age.

Despite the difficulties and the really tough choices that we are confronted with, we can harness that proud past and our present achievements to build a sense of optimism about what we can – together – achieve in the future. ■

Ministerial Career

June 2001, Hilary was appointed as Parliamentary Under Secretary of State for International Development. Between May 2002 and May 2003, he was Parliamentary Under Secretary of State for Community and Custodial provision at the Home Office.

In May 2003 he was appointed as Minister of State for International Development and in October that year entered the Cabinet as Secretary of State for International Development. While at DFID, Hilary played an important part in increasing the UK's aid budget and in winning agreement on debt relief for the poorest countries at the 2005 Gleneagles Summit. He oversaw the UK's response to the South-East Asian Tsunami and the Pakistan earthquake, and it was his idea that resulted in the establishment of the UN central emergency relief fund which now helps the world to respond better to disasters. He also led the UK negotiating team at the 2006 Darfur peace negotiations.

Hilary was appointed to DEFRA as Secretary of State in 2007, when Gordon Brown became Prime Minister and leader of the Labour Party. At DEFRA, he helped to put the ground-breaking Climate Change Act on the statute book, and piloted the Marine and Coastal Access Act – which will protect out marine ecosystems – into law. He also created the South Downs National Park.

Following the 2010 General Election Hilary became Shadow Leader of the House of Commons before being appointed as Shadow Secretary of State for the Department of Communities and Local Government in October 2011.

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Introduction

Welcome to Adjacent Local Government where we will be examining and highlighting a host of topics of concern to our varied readership. From sustainable cities and affordable homes, through to local government pensions, we hope to inspire and create debate.

The edition begins with a Foreword from the Shadow Secretary of State for Communities and Local Government, Hilary Benn MP. He discusses how communities can overcome social, economic and environmental changes in order to build a sustainable future. He suggests that we should learn from history about good leadership and confidence in order to gain enormous achievements, even when times are tough.

In our built environment section we have an excellent array of articles that delve into the topic of how we can achieve sustainability throughout our local communities. We start the section with a piece from European Commissioner for Regional Policy, Johannes Hahn, who gives an insight into what smart and sustainable growth means for Europe. Included also is a piece from Councillor John Gardner of Stevenage Borough Council, who gives a perspective on what is being achieved by a local planning authority.

We also shed light on the area of culture and heritage, which is going through many changes currently, including digitisation. European Commissioner for Culture, Androulla Vassiliou and MEP Silvia Costa explain the important role the cultural and creative sectors play in economic growth throughout Europe. Recently announced as the City of Culture 2017, we also have a 'Spotlight On' feature from Hull City Council, which shows how committed the city is to attracting visitors and increasing employment.

Other topics that are given consideration within this February edition include; transparency within the NHS; reoffender management; apprenticeships; and, the digitalisation of public services.

I hope there is something of interest for everyone, and as ever we welcome your feedback, ideas and suggestions for future articles. ■

In the next edition we intend to widen the scope of the publication to give a more cross-government balance. We look forward to this in May.

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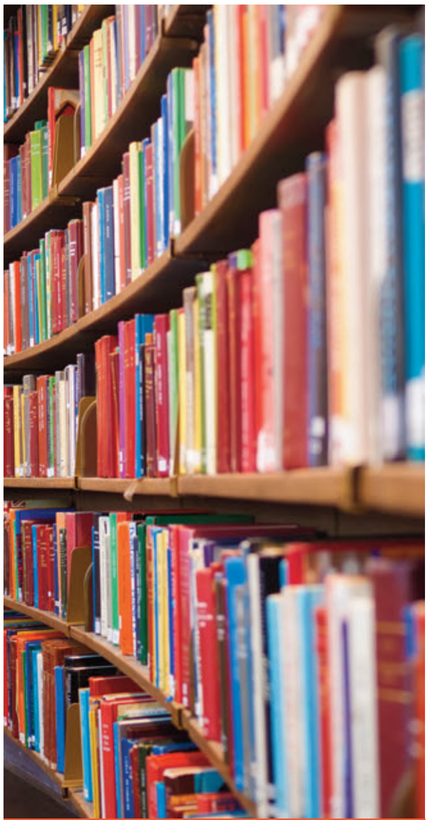

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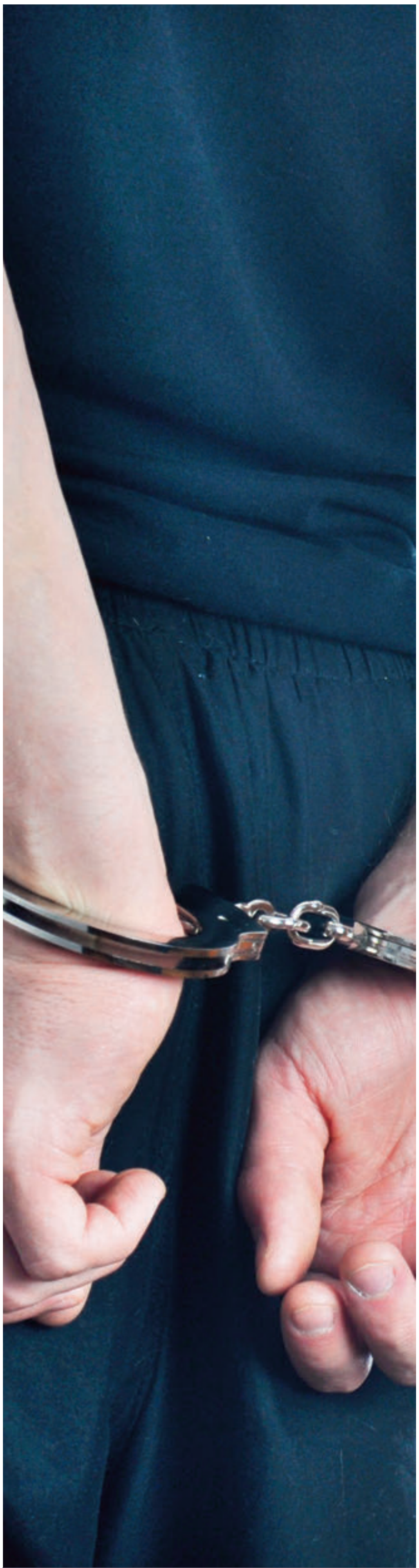

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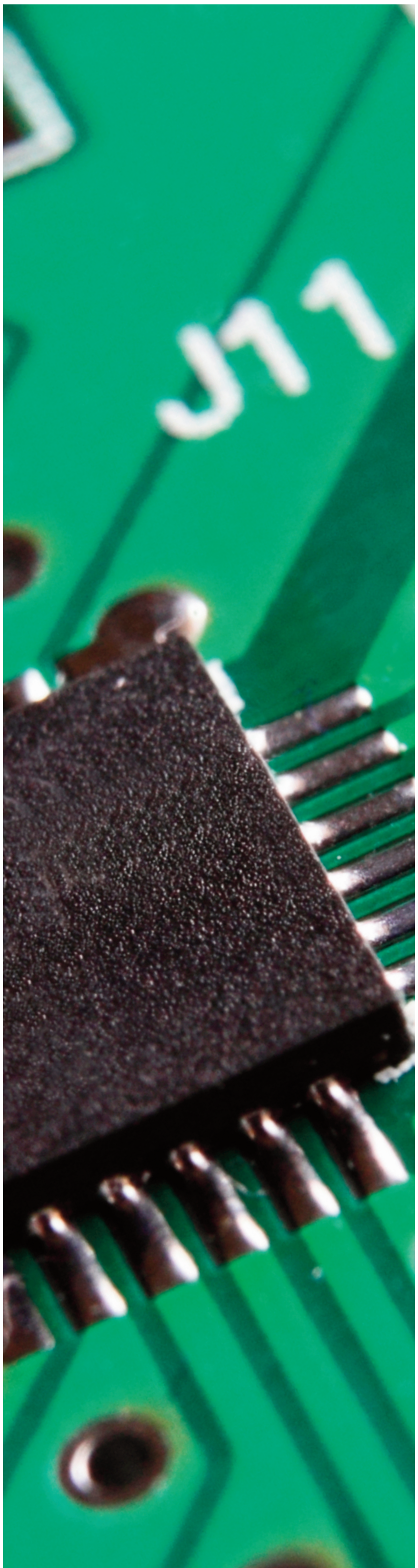

ICT AND DIGITISATION

Driving smart, sustainable growth

Commissioner for Regional and Urban Policy, Johannes Hahn explains what smart and sustainable growth means for European cities...

It is becoming increasingly clear that economic growth in the EU will come primarily from Europe's towns and cities. The reality is therefore that these days neither Member States nor the EU can achieve their economic or social policy objectives without engaging with cities. The figures speak for themselves: metropolitan regions host 59% of the EU population and 62% of all jobs – generating 67% of the Union's gross domestic product (GDP).

Since cities are places where challenges are raised and where solutions can be most effectively delivered, they are in the driving seat to implement many EU or national policies at local level. For example, if the EU is to meet its climate targets, it needs cities to better address resource and energy efficiency, notably in transport, housing and in overall urban design. Working across levels is also essential for cities to solve problems such as poverty concentration, spatial segregation, ageing populations, etc.

Therefore, the EU offers a wide framework of support for cities and urban areas, with a great deal of European Commission work impacting in some way or another on cities – seeking a holistic approach to their growth and development.

My job, as Commissioner for Regional and Urban Policy, is to ensure that all these initiatives are coherent and create synergies, and that we work in partnership with Europe's cities. This will, I believe, unleash the potential of cities to help deliver EU-wide goals of green and balanced growth. Cities have to be at the heart of our plans to create a Europe that is prosperous, environmentally sustainable, and where no citizen is marginalised.

With the dawn of a new budgetary and development programming period for 2014-2020, EU Regional and Urban Policy continues to devote its resources to boosting the economy through targeted action in all

EU regions – and pioneering work in its cities that can help boost competitiveness throughout the Union.

Under the new Regulations approved recently, all regions have to target between 50 and 80% of their European Regional Development fund (ERDF) investments on innovation, information and communication technologies (ICT), small and medium-sized enterprises (SMEs) and the low-carbon economy. Overall, there will be a very significant amount of EU funding devoted in the next period to making cities 'smarter', 'greener' and 'more inclusive'. It is essential for cities to ensure that all ERDF-funded projects are aligned with strategic planning policies for their regions.

For cities, smart growth means that urban areas should support a transition towards a knowledge society, building on social, organisational and technical innovation. Cities should develop new educational pathways and a favourable entrepreneurial environment. They should foster a dynamic local & social economy.

In the EU Smart cities and Communities Initiative, smart cities are regarded as places where flows and interactions become smart through making strategic and relevant use of information and communication in a process that is responsive to the social and economic needs of society.

We have to look for projects that do not look at technology in isolation but together with other key issues such as public space, soft mobility, spatial integration, social innovation, and so on.

Green growth means changing a city's development path towards a model that uses fewer resources to achieve more. Initiatives and projects can include the redevelopment of brownfield sites such as disused dockyards or steelworks, turning them over to business, educational or cultural use – or a combination of these. Cities are supported to develop sustainability strategies or tools to assist the transition to a carbon-free energy system, as well as exploring new green options to reduce their carbon footprint. For example, the 'Retrofit South East' project carried out in Petersfield is a good example of the reduction of energy consumption as one of the aims of housing intervention. The Petersfield project improved the energy efficiency of housing aimed to stimulate the emerging retrofit market and has led to the creation of new quality jobs in the region.

In order to advance the inclusive growth of cities, our Policy invests in local responses stimulated by strategies such as neighbourhood management. Tools include education, health and social infrastructure and the development of local services. It is driven by local actors and plays an important role in creating social inclusion. The vital ingredient of an inclusive growth strategy is lively partnerships, which bring in civil society organisations representing people at risk of exclusion, and which embrace the various tiers of government.

Cities must reposition themselves in looking at these various pillars of urban development. They should use the ERDF and other financial resources to provide good public spaces, efficient administrative services as well as physical workspaces with a range of facilities.

Experience tells us that nearly half of our future funding will be spent in urban areas in one way or another. Our philosophy is that effective investments in urban areas should follow an integrated strategy, based on synergies across sectors. We need to bring together the necessary actions in a holistic view of the development of our urban centres.

A strategic approach is a key element of Regional and Urban Policy, and therefore, we are obliging every Member State to devote at least 5% of total investments under ERDF specifically on integrated sustainable urban development. We will continue to work with URBACT, who provide a platform for exchange of experience and work on the development of local action plans in the various fields of cooperation between European cities. We will also invest €330m in innovative actions in sustainable urban development which will explore new solutions to today and tomorrows urban challenges.

The key to achieving the Europe 2020 goals of smart, sustainable and inclusive growth is indeed in harnessing the potential of our cities. ■

Johannes Hahn
Commissioner for Regional and Urban Policy
European Commission
www.ec.europa.eu

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- Slaughter house waste and wastewater
- Dairy waste and wastewater
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- Pharmaceutical industry waste
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BioSystem AB is a Swedish consultant company, specialized in biological degradation of organic waste and waste water, working as waste-, wastewater-, energy- and biotechnology-consultants. The company also have a long experience in developing new biological processes and new components for waste and wastewater treatment.

BioSystem AB´s specialities are:

- Biogas plants for waste from farms, municipalities and industries.
- Biogas plants for source sorted domestic refuse.
- Wastewater treatment plants for municipalities and food processing industries.
- Composting plants.
- Land based fish farms with circulated water.

Examples of wastewater treatment plants designed by BioSystem AB are the water treatment and the fish farm in NASA:s space colonisation unit BioSphere in Arizona, USA, the worlds largest indoor land based fish farm with circulated water in Belua, North Dakota with 2 hectares under roof and biological wastewater treatment systems in Sweden for Åbro Brewery and ARLA FOODS milk powder factory in Vimmerby, Spendrups Brewery in Grängesberg, Norrmejerier Dairy, Umeå, Pharmacia Upjohn Pharmaceuticals, Uppsala and ÅCA Dairy Åland, Finland.

38 years of experience from biogas projects in 38 countries

Liquid biogas

Biogas ferry, Norway

Biogas train, Sweden

Biogas bus

Specialities: ***Biogas from source-sorted household waste***
Biogas from manure
Biogas from slaughterhouse waste and wastewater
Biogas from dairy waste and wastewater

The company also has designed an integrated biological waste and wastewater treatment system for Mafisur slaughterhouse in Osorno, Chile and for one of the world's largest plum processing plants at Prunesco, Santiago in Chile.

BioSystem AB also has a long experience from modernising and optimizing municipal digester performance for Swedish municipalities with projects for Västerås, Ludvika, Smedjebacken, Borlänge, Leksand, Skövde, Trollhättan, Trehörningsjö, Avesta, Ljungby and Lilla Edet in Sweden as well as designing a new wastewater treatment plant for Tapioscentmarton in Hungary and proposal for digester installation for Slonim in Belarus.

One speciality is the design of biogas plants for farms. The company has designed biogas plants for 48,000 cattle in Lubbock, Texas, USA, for 38,000 milking cows at Caitsa milk farm in Mexico, for 84,000 standing pigs in Singapore and 850,000 standing pigs in Chile as well as a great number of serial built containerised biogas plants for small farms.

Another speciality is biogas plants for source sorted domestic refuse with design of biogas plants in Borås, Stockholm, Uppsala, Vänersborg and Linköping in Sweden, Ljubljana and Iliske Bistrica in Slovenia and Riviérs du Loup and Varenne in Canada.

The company holds two patents for two phase digestion and one patent for composting.

Leif Lindow, owner and Managing Director, has more than 38 years of experience from the design, construction and start-up of waste and wastewater treatment plants for biological degradation of organic matter in 38 different countries.

BioSystem AB has today a great number of technologies to convert waste into high grade energy in the form of biogas and valuable organic fertilizer.

BioSystem AB is specialised in design for local production of biogas plants in order to ensure local service and maintenance and has partners for building biogas plants in Great Britain, Norway, Germany, Poland, Ukraine, Slovenia, North America, South America, China and India.

BioSystem

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From waste to valuable resource

The City of Lahti is a pioneer in waste sorting and utilization. Lahti has an effective waste management system, which makes it possible to sort and make use of the energy that is derived from waste. Päijät-Häme Waste Disposal Ltd has systematically developed the waste sorting opportunities in the Lahti region. Since 1997, energy waste has been separately collected from households. The excellent opportunities for waste sorting and the participation of households enable the next steps in developing the material efficiency of waste management to be taken.

In 2012, Lahti energy Ltd built the first power plant in the world which works solely on recycled fuels, named Kymijärvi II. The CHP power plant generates enough electricity and district heating to meet the normal consumption needs of the Lahti region. With the aid of the Kymijärvi II power plant, the use of coal in the region has been significantly decreased and thereby, the carbon dioxide emissions are lowered by approximately 410 000 tonnes per year.

Besides cutting the CO2 emissions, the long-term investment on efficient waste management systems and knowledge building has created a vivid growth platform for Cleantech companies. The total revenue of Cleantech companies in Lahti reagion was over 1 billion euro in 2012.

Lahti has grown into the leading Cleantech centre in Scandinavia, with a particular emphasis placed on the development of waste utilization technologies. Lahti Regional Development LADEC Ltd, is responsible for the development of the cluster in Finland, as well as coordinating the international promotion of Cleantech business, in particular in the Chinese, Indian and Russian markets. Currently, approximately 150 companies belong to the Lahti Regional Cleantech Cluster. Energy and material efficiency enterprises in the Lahti Region provide employment for several thousand people.

"I am proud of the fact that in Lahti, nearly all waste produced is utilized. In my home, after sorting out the compostables, recyclable materials and energy waste, there's almost nothing left in my mixed waste. For this reason, the trash bins in our home are emptied only every three months."

– MAN, 49 YEARS OLD

For more information:

Päijät-Häme Waste Disposal Ltd:
www.phj.fi/in-english
Lahti Energy Kymijärvi II power plant:
www.lahtigasification.com/
Lahti cleantech development:
www.ladec.fi/en

European Union
European Regional Development Fund
Leverage from the EU 2007–2013
GreenCity
www.greencity.fi

Green city Lahti as a platform for change

The City of Lahti, Southern Finland has committed to cutting its greenhouse gas emissions to half of the level of 1990 by 2025. What does the goal mean in practice?

Unique energy solutions

The Lahti region's long-term investment in sorting waste culminated in the new Kymijärvi II power plant of Lahti Energy. The green power plant uses Solid Recovered Fuel produced from waste materials and generates 90 MW of heat and 50 MW of electricity. The Lahti Energy's power plant received the 'Finnish Climate Action of the Year 2012' award.

High-quality living

Lahden Talot Oy's low-energy houses on Lanssikatu are at top of the Finnish rental market. The apartments are not only energy efficient but also of high quality – the buildings' indoor air has received the best rating, class M1.

Cycling, walking and public transport

The centre of the City of Lahti is undergoing brisk development. Walking or cycling conditions are being improved, and the attractiveness of public transport is being increased as the drawbacks of car traffic are decreased.

Cleantech product development

The City of Lahti supports Finland's development into a global pioneer country in cleantech by promoting the product development of clean technologies, facilitating their access to markets and implementation through procurement policy, among other things.

Saara Vauramo, Develoment Manager

Residents committed to change

The resident survey (2012) showed that Lahti-dwellers know their responsibilities in cutting back greenhouse gas emissions. They even feel it is more their responsibility than that of the city. Residents are the most important driving forces of the Green city Lahti.

LAHTI

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Sharing the sustainable vision

Lord Mayor of the City of Copenhagen, Frank Jensen gives details of how the City is becoming the first CO_2 neutral capital in Europe...

Reducing CO_2 emissions is just a small part of being a sustainable city. Equally as important is expanding our economy and ultimately improving the quality of life of our residents.

Copenhagen is one of the most ambitious cities in the world when it comes to setting sustainability goals – and reaching them. By 2025 we aim to make Copenhagen the first CO_2 neutral capital in the world, and we are already well on our way. This agenda is the reason why Copenhagen has been awarded the European Green Capital Award 2014.

Cities play a decisive role in ensuring a more sustainable future. More than half of the world's population lives in cities, and they are responsible for about 75% of all CO_2 emissions. In Copenhagen, the number of residents will increase rapidly in the coming years, and it is important that we expand and develop our city in a sustainable way.

Intelligent urban planning and smart building in a city with fast population growth is needed to prevent an increase of CO_2 emissions in a city whose goals, among others, are to be CO_2 neutral in 2025. Copenhagen is already seeing results as we have seen a decrease by 20% since 2005. We are determined to reach our goals by installing 100 wind turbines, investing in solar panels, and converting our power stations from fossil fuels to biomass.

Cycling is the fastest and cleanest way of getting around, and 36% of the citizens in and outside Copenhagen use their bikes to work or school in the city every day. We have put a lot of effort in planning and developing our city in a greener way. New wider bicycle lanes, improved design of intersections, and behavioral campaigns have meant that we have set a goal which aims for 50% of Copenhageners to ride their bikes to work or education.

Green Laboratory

Reducing CO_2 emissions is just a small part of being a sustainable city. Equally as important, is expanding our economy and ultimately, improving the quality of life of our residents. In times of economic crisis,

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Quartier Wacken Europe


The H+ project

EGA Sustainable planning and architecture

Stockholm was elected the first ever European Green Capital in 2010. The prize rewarded an ongoing planning tradition which has created the city's unique relation with nature and water.

It simultaneously highlights recent year's of development in urban planning in the Nordic countries, which has resulted in sustainable new neighborhoods and urban renewal through unique collaboration processes between public and private stakeholders.

EGA Erik Giudice Architects, founded in Stockholm, builds on this planning tradition, and renews it.

Through a series of coherent and sustainable projects, EGA has proved its ability to integrate multiple layers of knowledge and the capacity to creatively lead multidisciplinary teams, including all fields of professionals: engineers, sustainability specialists, social sciences, landscape architects and artists.

With a forward thinking approach, EGA currently develops several highly innovative architectural and planning projects, in Sweden and abroad.

Five key projects by EGA

The H+ project in Helsingborg, Sweden. Winner of the WAN Award for Urban Regeneration 2012. The H+ project is one of Sweden's most ambitious planning and urban renewal projects. The ongoing process aims to radically transform the southern parts of Helsingborg, connecting them to the sea through the 'Blue-green connection' (a landscaped water feature).

The River City project in Göteborg, Sweden. The project aims to transform centrally located industrial and harbor areas and integrates solutions that anticipate rising sea levels.

Uppsala. For the renewed University city north of Stockholm, EGA has been appointed a long-term contract to develop several major projects, including Rosendalsfältet – an integrated city campus which mixes university premises with offices and housing in combination with a large park.

New Exhibition and Conference Center, Malmö, Sweden. The recently completed building was designed according to the Swedish Green Building standards and succeeded in reducing the energy consumption to a very low 35 kWh/m^2.year.

Quartier Wacken Europe in Strasbourg, France. EGA recently won the planning competition to design this mixed use neighborhood within the immediate proximity of the European parliament in Strasbourg, contributing to the development of one of France's greenest cities.

EGA

Erik Giudice Architects

architecture urban planning research

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we need to find new ways to create economic growth and new jobs.

There are benefits to improving bicycle infrastructure, building more sustainably in the city, and cleaning the harbour. The returns can be not only be measured by a better climate, environment and improvement of health and better quality of life, but also in terms of hard cash. Investments will bring returns. It is estimated that more than half of the investments put into improving the energy efficiency of schools, cultural centre's, homes and offices will be repaid through operational savings for example on energy costs, by 2025. Building bicycle infrastructure, for example, leads to more people taking their bikes to work, which in turn leads to improved health and lower medical costs, as well as a decrease in CO_2 emissions and air pollution.

Initiatives like this cannot be accomplished by the city council alone. It requires a great deal of involvement from citizens and partnerships with businesses in order to succeed. Our ambition is to make Copenhagen an international centre for clean tech companies. Already, there are about 500 companies and about 30,000 people work in the clean tech sector in the Danish Capital Region. The OECD has identified Copenhagen as a global leader when it comes to creating growth and jobs in this area, and the growth in the Green Sector is substantially higher than in other sectors in Copenhagen and Denmark.

A big part of the reason for the clean tech sector's success in Copenhagen is the political focus and the accompanying investments. With a carbon neutral Copenhagen on the horizon, Danish clean tech companies have a unified platform to demonstrate green Danish technologies.

Sharing Copenhagen

As the European Green Capital we want to share our experiences and solutions with other cities, but also learn from other sustainable projects in the world.

The theme for European Green Capital 2014 in Copenhagen is "Sharing". We have great traditions of including our citizens. According to surveys, Copenhagen is in fact the third most including city in Europe and we want them to share the city even more than they already do. In collaboration with more than 75 partner organisations and businesses, the City of Copenhagen has planned over 200 activities throughout the year for both Copenhageners and visitors, but we also want the world to join, share and be inspired.

Sharing good solutions will be pivotal; we will be sharing solutions and experiences at events at conferences, masterclasses, guided tours and events across the city. We are looking forward to welcoming the world and sharing our green solutions. ■

Frank Jensen
Lord Mayor
City of Copenhagen
www.kk.dk

Good bicycle infrastructure made easy

Many cities desire to create a successful bicycle-friendly city, where riding the bicycle becomes the obvious choice, just like in Copenhagen. Copenhagen's success is based on a well planned and established high quality bicycle infrastructure.

Creating high-quality bicycle infrastructure is not an easy task. Many cities are developing low-standard infrastructure, and as result do not see a desired increase in cycling.

Bikway offers a new approach to urban mobility planning and development. An approach where a short-term test installation is being implemented very early in the planning process, providing an opportunity to validate the plan, and promote smarter decisions based on on-street trials and demonstration.

Bikway is specialised in establishing short-term on-street biking infrastructure test facilities and making it possible for people, professionals and decision-makers to try and measure the impact of good and bad bicycle facilities before huge investment is made. We call it Bikway Lab.

The Bikway Lab provides a risk-free environment, where the participant can test, experiment, and try different bicycle infrastructure in the street. The advantage is that people can better relate to their future bicycle plan, because they have tried and tested it in-situ, and can see how important good bicycle infrastructure design is.

We allow the city plan to become reality in 3 easy steps.

Plan, Prototype, Experience.

We bring the future urban bicycle plan to the street today. We facilitate means to test infrastructure plans, provide feedback through community engagement, and measure the impact on traffic.

Benefits of the Bikway Lab

We offer you an experience of different cycling infrastructure solutions. We help you to engage with the community. You can play with our cycling infrastructure toolbox.

It is our core belief that you have to try it, to better understand the differences of cycling infrastructure solutions. That is why hands-on, user engagement and co-creation is central to the workshop and the activities, which Bikway is engaged in.

One solution cannot fit everybody's needs. Every city is different, so are our solutions/workshops. We offer you an experience of best and worst practice designs in order to test what would work in your city, and what wouldn't.

We aim to get you one step closer to the bicycle friendly city!

bikway
the bicycle friendly city starts now

Simon Majdrup Hansen
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Planning for low-carbon cities

Stoke-on-Trent City Council outlines their involvement in the European energy efficient city project, PLEEC...

As part of the European Union's 10-year growth strategy, Europe 2020 concentrates on 5 vital targets to create the conditions for smart, sustainable, and inclusive growth. Within the targets, the European Commission has set climate change and energy sustainability targets in their Europe 2020 Strategy. While the 20% reduction in greenhouse gas emissions and the 20% of energy from renewables are on target to be delivered by 2020, the 20% increase in energy efficiency is lagging behind.

It is acknowledged that comprehensive knowledge about energy efficiency potentials, particularly in cities, is still scarce. There are a variety of individual strategies and approaches by different cities that mostly tackle specific aspects of energy efficiency, but not as a whole entity for a city. Therefore, a consortium made of 9 universities, 6 medium size cities, including Stoke-on-Trent, and 3 private sector companies have come together to develop an integrative approach to contribute to sustainable and energy-efficient smart cities. This collaborative project covering 13 EU countries is termed "Planning for Energy Efficient Cities" (PLEEC).

The project is funded under the EU Seventh Framework Programme and will consider energy efficiency through 3 main pillars: behavioural change, the planning system and technology.

The PLEEC project will identify what actions a city can take to deliver effective reduction in energy consumption through behaviour change. By targeting key stakeholders such as policy and decision makers, the general public and the private sector, the project will utilise best practice examples and develop educational techniques to bring about organisational and individual behavioural change to improve energy efficiency.

The main objectives of the project are:

- To assess the energy-saving solutions and potentials to be integrated in a comprehensive city planning;
- To demonstrate how integrative planning is more efficient than separate measures;
- To develop a synergised model for energy efficiency planning by considering the energy efficiency potential of key aspects;
- To create action plans to be presented to decision-makers in the cities;
- To identify the future research agenda on the issue of energy-smart cities.

The PLEEC project also acknowledges that the planning system has a major role to play in delivering energy efficiency solutions. By analysing the planning system within each partner city, the project seeks to identify both successes and obstacles in tackling energy efficiency. The findings will identify the key aspects of urban planning that each partner city should focus on to deliver energy efficient potential.

The potential of new technology to deliver improvements in energy efficiency is a key component of the

PLEEC project. Industry and experts in the field will lead on identifying new innovative technical solutions to address to reduce energy use across each partner city.

"The PLEEC project also acknowledges that the planning system has a major role to play in delivering energy efficiency solutions. By analysing the planning system within each partner city, the project seeks to identify both successes and obstacles in tackling energy efficiency."

For Stoke-on-Trent, PLEEC aims to deliver an approach for sustainable city planning, in which the goal of energy efficiency takes the centre stage. Scientific expertise and innovative enterprises will be combined to investigate and implement good practice in energy efficiency and environmental matters.

In the city of Stoke-on-Trent, the need to reduce energy use and move towards a low-carbon economy has been firmly set through a number of acts and planning guidance. The message is clear that action is required to help deliver this change to ensure that business remains competitive and opportunities to improve the energy efficiency of the built environment are taken.

In a planning system reliant on an approach supported by local evidence, the PLEEC Project will have an important role to play in providing this strategic direction for energy efficiency in the city of Stoke-on-Trent.

By coordinating strategies and combining best practices, the project will deliver a model for energy efficiency and sustainable planning for each partner city. This will be accompanied by bespoke action plans for implementation and management that will identify the most cost effective method to address the EU goals to reduce energy use by 20% till 2020. The action plan will form a key evidence base document that will be taken forward in the form of planning policy and guidance within the statutory development plan for Stoke-on-Trent.

All stakeholders need to respond to the challenge of reducing energy consumption. Meaningful action cannot be delivered in isolation – but only through co-operation. The PLEEC Project provides this opportunity for a wide variety of stakeholders to contribute towards delivering a vision and help deliver the necessary changes. ■

For the latest information regarding the project, please visit the PLEEC website: www.pleecproject.eu

PLEEC PLANNING FOR ENERGY EFFICIENT CITIES

SEVENTH FRAMEWORK PROGRAMME

Mandate for Change | city of stoke on trent

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Brixton Listening Lab: Moving communities forward

Katz Kiely and Han Pham examine how future cities can sustain sustainable behaviours through nudging citizens and community activities...

In less than a month, key leaders in London's Brixton community – all at the leading edge of technology, behavior change, and policy – from local council, public health professionals, teachers, faith leaders, social innovators, entrepreneurs and local media, to social scientists, data specialists, designers, and programmers – will design a new community experiment to tackle a difficult dilemma: London is Europe's most polluted capital city. The bigger challenge? To make it fun. The judges? Kids.

Air quality: The problem without a face

The challenge is a common one not only for London, but for cities across the European Union. Janez Potočnik, European Commissioner for the Environment, has indicated that the EC is running out of patience, and will start to issue fines to cities that fail to hit air quality targets by 2020.

The air quality in some London areas, namely Brixton and Putney, can reach 3 times those air quality targets. The primary cause of this poor air quality is vehicle emissions.

This pollution needs a solution. The options are to force people to leave their cars at home, or inspire them to do so. Fun is an effective driver and game mechanics can play a critical role in behavioural change. Social competition and reciprocity are powerful motivators. Social networks can deliver positive messages where, when and how they are most effective. Models that motivate behaviour change in young people work equally well for older members of the community.[1]

Designing with the people, for the people

Many projects have tried to crack this challenge over the last few years with limited success. Using available technology and integrating behavioural insights across all stages of design and implementation, this multidisciplinary team drawn from both the local community and domain experts are developing a new integrated model to motivate people to walk more and drive less in a multi-channel behaviour change campaign called "Walk the Talk," a TSB-funded feasibility pilot between LOOP Labs and the Intel Collaborative Research Institute on Sustainable Connected Cities (ICRI-Cities).

Around 50% of all car journeys in London are under 3km. Most people can comfortably walk 3km in 30 minutes. GPS firm RAM Tracking has shown that at some main London arteries, at rush hour, cars crawl along at just 0.15km per hour. Regular walking reduces the risk of chronic illnesses including heart disease, diabetes, asthma, stroke, and some cancers, plus the weight loss and well being associated with regular exercise. In every respect, walking is better than driving.[2]

Over the next 3 months in Brixton, LOOP Labs and ICRI-Cities, in collaboration with key local partners such as Transport for London, Lambeth Council, schools and other community leaders will experiment with a number of innovative design techniques, while using Intel-designed sensors to measure air quality at a local level over time. Walk the Talk Brixton's journey will be shared across multiple platforms, to benefit like-minded organisations.

A new game mechanic for dynamic community and living streets

Katz Kiely, CEO of Loop Labs has already proved the power of intergenerational bonds and applied behavioural insights in an urban context: the award-winning

"Power of Cute," for Ogilvy Change and Greenwich Council, had a significant impact on the local crime rate. A simple intervention resulted in an 18% drop in the local crime rate over a year. Today, Ogilvy Change is supporting Loop Labs and the Walk the Talk project as its first incubator SME to continue to connect socially impactful work with entrepreneurial growth.

Building on experience and learning from research, local community leaders will be central to the design of effective interventions for local communities. At the heart of these communities are extended families – one of the key pillars of the Walk the Talk design.

"Successful behaviour change models must motivate people to try something new and also support them to repeat that behaviour often enough for it to become habitual."

As adults are heavily influenced by the desires of their children, we will harness "pester power" by including primary school children from our test-bed area in the process. A clever new game mechanic will harness, and potentially strengthen, intergenerational bonds.

The concept is unique but simple: Children will depend on points collected from adult team members to rise through game levels. Points will be collected by adults on a smart phone tracking app based on tried and tested models, which can track walking behaviour such as steps, distance, calories, and map routes. Data generated by kids and their adult teams will be aggregated and visualised using game mechanics that capture the imagination. By designing with the children, Walk the Talk will couch the data in narrative styles and characters that allow information, incentive and motivation to come alive through the eyes of children, their parents and the connected community. The project's objective is to make tangible how individual actions, which when collected across communities, have significant impact.

In addition, Walk the Talk will work with the local community to understand how public connected screens could be a powerful piece in the motivational puzzle. Screens are often underused in places where significant numbers of the community spend their time – including supermarkets, municipal offices, health centres, cinemas, and pubs. We hope to show how they can align, connect and inspire communities to collaborate toward a common goal, while having fun and discovering new shared connections.

Smart cities begin with people

Nicky Gavron, Chair of the Greater London Authority (GLA) Planning Committee, former Deputy Mayor of London, and Founding Chair of Loop Labs, suggests the need for more community-led solutions for sustainability.

"As a city leader, I know there's much we can do at a strategic level to help deliver integrated solutions (including integrated policy and integrated implementation), but however much you do, we're not going to accelerate action unless we engage with citizens. It's not enough to say we will be a sustainable, smart city. We won't be a sustainable, smart city without smart citizens engaging in sustainable behavior. And that's why the Brixton project in my view is so exciting and has so much potential. This partnership between Loop Labs, this mission-driven company, with Intel and academia and links into local government to Lambeth and the GLA (Greater London Authority), means we can work with the community to potentially produce really interesting results in terms of community ownership and engagement. As I said, unless the citizens are involved in the process, we are not going to be able to accelerate action and catalyse the markets in the way that industry leaders really want to."

ICRI-Cities is helping to establish the pilot of Walk the Talk as one of its "London Living Labs" collaborative research initiatives, which also includes engagements in Hyde Park and Enfield. The London Living Labs, co-sponsored by the Future Cities Catapult, is a city-scale environment that is instrumented to enable experiments to be carried out in situ.

The London Living Labs is intended to provide a variety of rapid and dynamic experimentation environments including schools, parks and inner city neighbourhoods in which we observe sustainability as a lifespan measured over years by uniting advanced technologies such as heterogeneous wireless sensor networks and edge based computing with an ethnographically informed research approach coupled with design science. Together, this multi-layered, people-centric approach helps us to better understand and design for a range of scenarios and use cases with communities, city officials and stakeholders to help design for the connectedness and sustainability of future cities.

Tackling climate change and urban challenges such as air quality requires a multi-faceted approach.

"We've really focused on, at the moment, just point sources with traffic. What the [Intel] sensors give us an opportunity to do is to look at the whole picture. So we move beyond just looking at the traffic issue, and start to get a broader picture of what's going on, and explore other areas of air pollution that today haven't really been thought about," says Ned Johnson, Principal Environmental Health Officer at Enfield Council, Greater London. "They provide a very, very easy way of doing a lot of really good and important public health research."

Bridging the gap between intention and action is difficult, as behaviour change is a long process. Successful behaviour change models must motivate people to try something new and also support them to repeat that behaviour often enough for it to become habitual.

While solving the smart cities challenge will not happen overnight, the Walk the Talk project believes that challenging the assumption that individual actions are worthless in the face of the massive climate change challenge is key – and that new urban interaction models harnessing social media, behavioural insights and open data are a powerful combination to drive and sustain healthier behaviors that can potentially counter air quality, improve health, and building community connectedness and place-making through exploring the relationship between urban environmental challenges (air pollution, mobility, preventative health) with social challenges (technology access, public safety).

Martin Curley, Director of Intel Labs Europe and Vice President of Intel, suggests the increasing importance of an integrated approach to designing relevant technologies. "It is about establishing a shared vision and creating a shared value, which is a concept that is starting to have wider appreciation, that business can be profitable and do some good at the same time."

Through Walk the Talk, LOOP, in collaboration with ICRI-Cities and Ogilvy Change, is learning how to motivate behavioural change by connecting people and pervasive technology in smarter ways. We are putting the smart citizen at the heart of the Smart Cities agenda. ■

[1] www.psychologicalselfhelp.org/Chapter4.pdf

[2] http://www.ramtracking.com/rush-hour-traffic-in-the-UK.html

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Bright lights – green city

Edward Clarke, Analyst at Centre for Cities sheds light on how cities across the UK are taking action to contribute to economic growth through a low carbon agenda...

Almost every city's economic development strategy recognises and prioritises low carbon growth in their long term visions. Given these lofty green ambitions many cities are looking for practical ways to support their local economy while reducing carbon emissions.

Against the backdrop of tighter resources and limited financing, it is increasingly important that pursuing a low carbon agenda makes sense for a city's balance sheet as well as its economy. So how can cities lead the way?

Cities' most effective policies and projects are those that are locally tailored. Policies can't be implemented in the same way in Newport as in New York. The most successful cities have strong leadership that sets priorities and leads by example. Through effective networks of residents, businesses, public and third sector partners, city leaders are better placed to identify and remove the barriers to growth and support the local economy in a targeted way. They are also better placed to use comprehensive and accurate information to both inform targeted decisions and enable benchmarking to evaluate policy impacts.

Bristol, which was one of the UK's first cycling cities in 2008 and will be the European Green Capital in 2015, is an interesting example of how a city is delivering on its commitment to be a 'green city'. The city has strong leadership from the Mayor alongside established networks involving residents, public and private sector partners, with a strong demand for low carbon growth.

Practically, Bristol is using the limited regulatory powers UK cities have, to ensure planning regulations favour renewable energy sources in the city (through planning policy BCS14). The city has also created a successful 'Carbon Challenge' programme incentivising businesses to cut their emissions by 10% over four years in return for branding and networking opportunities. The city is using public money to support innovative industries that would otherwise go un-funded. For example the Hydrogenesis Ferry is acting as a test bed and billboard for local advanced manufacturing and low carbon businesses. Furthermore, after identifying that businesses are put off by overcomplicated regulations in the national Green Deal, the city is providing individual case managers to simplify the process, with localised success. The local authority is also actively seeking innovative financing models, levering in €100m ELENA funding from the European Investment Bank to form the Bristol Energy Services Company providing businesses with stable prices for low carbon energy.

Cities in the UK and across the globe, rather than waiting for their national governments to act, are taking action to support economic growth whilst reducing their carbon emissions. The most successful cities combine experiences and examples from other cities with the insights and resources of local partners to develop their interventions.

Ultimately the most effective city policies and projects focused on moving towards a low carbon economy are those that are locally tailored and make good economic as well as environmental sense. ■

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Sustainability – a local issue for us all

John Gardner, Deputy Leader at Stevenage Borough Council gives an overview of sustainable development in the local community...

Sustainability is at the heart of what local planning authorities such as Stevenage Borough Council do in partnership with the community, from planning, to delivering essential services. The word sustainability is sometimes interpreted by politicians to suit their own particular agenda but as is often the case the simple definition remains the best: "Sustainable development is about making sure that people throughout the world can satisfy their basic needs now, while making sure that future generations can also look forward to the same quality of life. Sustainable development recognises that the three 'pillars' – the economy, society and the environment – are interconnected."

Our planning policy team at Stevenage Borough Council have sustainability embedded in all our development proposals, from new neighbourhoods and homes to employment sites and social provision. We wish to see future housing and employment developments embrace the principle of 21st Century Garden Cities urban design, with adequate green space provision for leisure and recreation.

A Stevenage Borough Council scheme to build environmentally sustainable housing was awarded the silver award for the Built Environment and Architectural Heritage at the International Green Apple Awards in 2011. The award recognised our affordable housing developments at Cotney Croft and Peartree Way, where 8 energy-efficient family homes have been built on 2 former council owned sites. The development was managed by Home Group on behalf of the council. Each of these homes benefit from excellent insulation and air tightness, photovoltaic roof tiles for solar electricity generation and rainwater harvesting to reduce mains water consumption.

Councillor John Gardner
Deputy Leader and member for Environment and Regeneration
Stevenage Borough Council

These features will not only help reduce carbon emissions but will mean lower bills for residents.

Our Green Space team, with responsibility for our parks, woodland and our outdoor recreation areas, is one of only a few local authorities with an active biodiversity action plan, produced in partnership with the Hertfordshire & Middlesex Wildlife Trust. This programme has enhanced biodiversity in the borough through initiatives such as our Urban Roadside Meadows that promote wildflowers, butterflies and bees. All of this is achieved by adapting to the potential and actual effects of climate change with reduced rainfall and longer warmer summers.

Our Recycling and Waste collection system is at the front line of sustainability at the local level, with 40% less going to landfill than a number of years ago. And with a growing demand for recycling materials and products, this is an area in which we all play a part. ■

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Sounding out the problem

Henrik Bengtsson, project manager from the Municipality of Lerum sheds light on the environmental impacts of noise pollution...

One of the most pressing environmental problems of our time is undoubtedly global warming with all its related consequences in both economic and ecological terms. Environmental noise, caused by traffic, industrial and recreational activities is another problem as it affects a large number of Europeans. Innovative measures are essential to improve the soundscape in our cities and to impede global warming in general.

Carbon reduction objective

Scientific consensus lays the blame for the increase in greenhouse gasses on human activity, and while there are several different gasses responsible for the current effects, the emission of CO_2 stands out as a particularly important element.

The EU's overall climate goal is to prevent global warming from increasing by more than 2 degrees compared with the time before industrialisation started. Europe therefore has to save energy and invest more in renewable energy, i.e. energy that comes from non-fossil sources. This includes, among others, energy from wind, the sun, water power and bio-fuel.

Noise reduction objective

About 30% (some 120 million people) of the population in the EU are exposed to road traffic noise levels that scientists and health experts consider to be unacceptable.

The policy issue is; to reduce the number of people exposed to and affected by high traffic noise levels (i.e. noise levels which endanger health and quality of life).

Noise and carbon reduction

At present, noise barriers (of wood, concrete, plastic or glass) or banks of soil are primarily used to reduce road and rail traffic noise. The barrier's acoustic insulation is important because otherwise it would leak sound and not work as required.

A solar thermal collector consists of a glazed enclosure box with isolation and pipes where water circulates. The mass of these panels is similar to the mass of a traditional noise barrier, which means it could preferably be used instead of the traditional barrier materials.

The energy produced can be used in central solar heating, providing renewable energy to residences, businesses or other buildings. Central solar heating can involve large-scale thermal storage, scaling from diurnal storage to seasonal thermal energy storage. Thermal storage increases the solar fraction – the ratio between solar energy gains to the total energy demand in the system – for solar thermal systems. Ideally, the aim for applying seasonal storage is to store solar energy collected in the summer time to the winter months. It is important that the plant capacity is consistent with heat requirements, so that the heat produced can be handled in the system at any time.

This can be one possible measure to carbon reduction without competition about space in urban areas. Meanwhile, it can reduce the number of exposed to noise and provide positive effects on public health and property values whilst also making use of the often useless area close to highways and railroads. ■

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Economic growth starts at home

Margaret Allen, Director of Programmes at the Homes and Communities Agency (HCA) discusses the importance of investment in house building to help drive economic growth...

Housing and construction play a significant role in boosting economic growth, a fact well recognised in both the recent Autumn Statement and the June 2013 Spending Review. Housing construction supports jobs in the construction industry and its wider supply chain. It also helps local employers to attract and retain staff, and in doing so, stimulate new economic activity in local business. Helping drive local economic growth is a key HCA priority, and while it's encouraging that the recent announcements reinforce this and it is a focus of our activity right now, we should also not forget we are still in challenging times, and delivery conditions can be difficult.

We know from both announcements that more homes need to be built. The June 2013 Spending Review in particular, which unveiled a £3.3bn package to support the delivery of 165,000 new affordable homes over 3 years from 2015 to 2018, was firm recognition of this and the case for driving the supply of housing. It is also a reflection of the government's confidence in the affordable housing sector and the direct role housing plays in promoting economic growth. It is also further endorsement of the Government's confidence in the HCA as a delivery body that can help realise its ambitions.

The HCA welcomes this strong settlement for the sector. In addition to the funding announcements, confirmation of the rent regime for providers over the next 10 years has brought welcome certainty to the sector and its investors. This long term certainty and stability will give investors confidence and provide continuity for registered providers to assist longer term development planning. As economic regulator of social housing, we will continue to focus on ensuring providers have appropriate risk management strategies in place to protect public interest and maintain lender confidence, not least to support endeavours to build more new affordable homes.

With the support of the government, the HCA is continuing to work hard to help the housing market through one of its toughest times. The release of our most recent set of housing statistics in November 2013 show that we are currently on track to deliver our contribution to the government's 170,000 target under the current delivery programme to 2015. Nearly 11,000 new homes were completed, over 8,000 of them affordable; and a further 12,569 started in the first 6 months of the year, which is testament to the hard work being done by our partners. However, there is still much more to do under the current programme, and the final quarter of the year is always its most challenging.

Quite rightly, housing providers are also starting to think ahead and consider what they might be able to deliver beyond this, under the 2015-18 Affordable Homes Programme (AHP). For that reason, we will shortly be setting out details for the new programme and timings, which will enable us to make best use of the longer lead in time once allocations are announced. This will help to ensure that delivery can start from day one.

The government has also set out its commitment to increasing and speeding up delivery. Our programmes are designed to maximise housing outputs and outcomes, not only through our main AHP, but through our other housing delivery such as Get Britain Building. This £570m programme of recoverable investment is helping speed up construction by bringing stalled sites forward aided by the HCA's enhanced public land role and large sites programme. It is anticipated that Get Britain Building will deliver up to 12,000 new homes; already there have been over 10,500 new market sale and affordable homes started on site.

Corby is a great example of how our key programmes work together. The redevelopment of the town centre, railway station and local Thresham College have all made a real difference in the Borough and in the regeneration of Corby as a whole. Alongside this, investment to help maintain housing development has helped sustain momentum. Corby is now providing on average 444 housing completions a year; an active and buoyant housing market.

The HCA welcomed the recent confirmation of £1bn of new investment through the Local Infrastructure Fund (LIF) as announced in the Autumn Statement. LIF, which also accelerates the delivery of locally supported, large scale housing schemes by investing in upfront works, covers the period 2015 to 2020, aiming to bring forward over 250,000 new homes. The programme works across a number of other programmes such as Build to Rent.

A good example of this is Cranbrook in East Devon, where we were able to approve £20m of vital investment on the second phase of a large housing scheme. Here, investment will be used to deliver roads and infrastructure needed to develop a new town centre, with the remaining funds supporting the construction of a new secondary school and a second primary school. This investment in infrastructure is expected to accelerate the pace of the delivery of new homes from 300 a year to up to 500.

But we don't do any of these things alone. We are a part of the wider investment strategy. Delivery is a product of all key partners on the ground – local authorities, housing associations and other registered providers. Our role is to help them meet the aspirations for their areas and sustain local growth; housing is a major part of that. To maintain current momentum it is essential that we continue to deliver at pace. As a sector, we have responded well to the challenges and opportunities presented by current government initiatives, but that in no means underplays the work to do to meet the remaining commitments under the current AHP and other programmes. ■

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Opportunity knocks

Annys Darkwa, Managing Director of Vision Housing explains the need for more housing to help re-offenders integrate back into the community...

Homelessness remains a real problem in the UK today and most strikingly this can be seen in the London area where people living in temporary housing remains at record levels. London remains an attractive place for people looking for housing and for work. Single homeless providers in London regularly achieve near full occupancy; the predictions are for further growth in population resulting in greater pressures upon an already over stressed housing supply stock.

When people are sent to prison they often lose everything: home, family and job. Their criminal record exacerbates their disadvantages and they often have difficulty in assimilating back into society especially in accessing housing and employment as a result. Many people leaving prison are at high risk of becoming homeless and reluctantly quickly slip back into an offending lifestyle. Accessing and maintaining suitable housing, particularly immediately on release from prison, is a vital step in moving people away from offending behaviour. Furthermore, they need support from people they can relate to in order to help them to increase their social capital, to develop and maintain relationships, to engage in their local community and to access education, training and employment.

By providing decent quality accommodation in an area away from the offender's "territory" on the day of release, the chance of not reoffending is significantly greater than if returned to the previous community where the offence occurred. However, providing accommodation is only the beginning for offenders on their road to not reoffending. Providing advice and support in accessing statutory help, finding training opportunities and/or jobs, and remaining a source of support as long as it is needed is vital in meeting their ongoing higher needs.

Information for prisoners prior to leaving prison is poor with only 19% of prisoners receiving advice or guidance about accommodation (House of Commons Home Affairs Committee, Rehabilitation of Prisoners, 2004-2005, Volume 1 and 2). Most do not know what their options are and have poor strategies for searching for suitable accommodation.

To address this we need to continue to provide effective access to housing and resettlement support and implement a programme that directly addresses the needs we have identified. The aim must be to improve the levels of social inclusion for offenders and increase the opportunities for them to become involved in training and eventually employment.

As part of Chris Grayling's 'Rehabilitation Revolution', he proposes that every offender should be met upon release by a dedicated mentor who is there to help the offender turn their lives around, resettle into the community and turn their back on crime for good.

We believe that this is too late and that it should start prior to release as many prisoners we see are playing catch-up on this upon release without sufficient resources available to them to sustain them in doing this. ■

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New fire sprinkler law for Wales

Ian Gough, senior technical advisor at BAFSA gives an overview of the upcoming changes to UK fire safety law...

A major change to UK fire safety law comes into effect in April this year (2014) when automatic fire sprinkler systems are to be made compulsory in all new and converted residential properties in Wales.

The Domestic Fire Safety (Wales) Measure 2011 was finally approved by the Welsh assembly in October 2013 when the Minister for Housing, Carl Sargeant, signed the regulations into law and a Commencement Order[1] was issued.

In Wales alone, data from the previous 10 years had shown that on average 17 deaths and 503 injuries per year were caused by fires in residential properties; and, while there had been a reduction in the number of deaths from fires in the home during this period, the Welsh Government believed that the number was still too high.

Consequently, as from 30th April 2014 all new and converted residential care homes, certain hostels, B&Bs and student accommodation will be required to include in their design fire sprinklers before approval can be given by building control authorities. A second tranche of legislation requires all new and converted residential property, including houses and flats, to be protected by sprinkler systems as from 1st January 2016. The new rules will not, however, apply to hospitals or hotels.

The legislation is intended to reduce the number of deaths and injuries from fire, improve the safety afforded to fire-fighters and contribute to the sustainability of new developments.

Legislative Competence Order

Under the 2006 Government of Wales Act, the Welsh assembly can create its own legislation and subsequently Vale of Clwyd Assembly Member (AM), Ann Jones, won an assembly ballot to be the first individual AM to introduce a Legislative Competence Order (LCO).

Ann, having worked in the fire service for almost 30 years, put forward the LCO to make it compulsory for automatic fire sprinklers to be fitted into all new homes in Wales. She said that the experience of her work in the fire service had made her aware of the devastating impact of fires – not just on the victims of fires and their families – but also on those responding to incidents that have caused death and injury to people in their own homes.

The Vale of Clwyd AM's proposal, which was originally passed with cross party support in 2011, has been described as historic by Chief Fire Officers across Wales and has attracted the support of organisations such as the Fire Brigades Union and Chief Fire Officers Association.

Cost Benefit Analysis

Understandably, the issue of financial cost has been a major concern and questions have arisen regarding proportionality – especially from social housing providers and builders. For this reason therefore, and as part of the regulatory process, the Building Research Establishment (BRE) was tasked with analysing the losses caused by fires in residential buildings in Wales and the projected costs of protecting new buildings with sprinklers.

Published in April 2012, the BRE report[2] has generated considerable discussion and debate particularly as it found that whilst sprinklers were cost effective when installed in new care homes and halls of residence etc, they would not be cost effective in single occupancy houses. However, supporters of the Measure, such as the Chief Fire Officers' Association, have challenged this view by pointing out that the figures used to determine the statistical value of a life in the UK is lower than that used in other countries. Indeed, in Norway the figure used is almost double and the USA places a value 3 times larger than is used here.

Sprinklers in most new build houses are simply connected to the mains

Unique event, London 2014:

Fire Sprinkler International 2014

Fire Sprinkler 2014 will be the only conference outside of the USA to focus on fire sprinklers in 2014. Sprinklers are still not used in Europe as widely as they should be and this event is intended to demonstrate best practice and more effective use of sprinkler technology.

Jointly hosted in London by the European Fire Sprinkler Network and the British Automatic Fire Sprinkler Association, Fire Sprinkler International 2014 will provide a unique forum for those who wish to change the attitudes of legislators, regulators and building owners. With an array of international speakers, delegates can be assured that they leave Fire Sprinkler International 2014 informed, inspired and certainly with a broader knowledge of the capacity, capabilities and consistent performance of sprinklers.

To complement the delegates' experience there will be an exhibition supported by a range of international companies providing products, equipment and expertise.

Visit www.firesprinklerinternational.com or more information contact: wendy.otway@btinternet.com

Furthermore, although the figures indicated that the average cost of a sprinkler system would be approximately £3,075 per house and £879 per flat, organisations such as the European Fire Sprinkler Network believes that the costs will reduce, as has happened in other countries around the world where similar legislation has been introduced.

Water Supplies

With an eye to both effective and efficient systems, the fire sprinkler industry considers that: provided sprinkler installations are properly designed and installed to the current British Standard (BS 9251) and that the co-operation of the local water company is obtained, savings should be achievable on the figures quoted. This is because connections can be made directly to the town main supply, thus alleviating the need to always supply water from a dedicated tank and pump and which the 'Regulatory Impact Assessment' figures assumed would necessarily be the case. Indeed, the British Automatic Fire Sprinkler Association (BAFSA) is of the opinion that, given adequate pressures and flows in supply pipes, almost 90% of new single occupancy houses could be fitted with sprinklers in this way thereby reducing the estimated cost by about one third.

Therefore, to ensure that all parties appreciate the need to provide cost effective life safety sprinkler systems that comply fully with water regulations, efforts have been made to secure the support of the water supply companies both in Wales and throughout the UK, and BAFSA is working closely with them and the organisation Water UK.

One important outcome of this work has been the recent publication of a new protocol[3] which has been agreed between the fire and water industries.

Competent Contractors

Clearly, a growing demand for sprinklers will require the recruitment of extra staff and the potential exists for many existing companies to expand and even new companies to evolve.

Another challenge therefore, will be to ensure that contractors employ competent workers so that equipment is properly installed and maintained.

Suitable training and 'up-skilling' courses and qualifications are considered to be essential, and work is underway, in collaboration with Neath Port Talbot College in Swansea, to provide additional training capacity for Wales. The college has recognised the need for practical vocational training in this field and has already secured the services of an experienced fire sprinkler engineer. Interestingly, this is probably the first building college in Europe to develop such training.

Evolution of Sprinklers for Life Safety

Automatic Fire Sprinkler systems were invented some 200 years ago. However, up until relatively recent times, they have been used primarily as a 'property protection' tool rather than for 'life safety'. But the development of 'fast responding' sprinkler heads in the 1980s has now enabled sprinklers to be used for life safety applications and much use of these products has been made in Canada, the United States of America, Scandinavia and New Zealand.

With this growing experience, many experts in the field of fire safety are calling for better use of such systems. Indeed, it is believed that most, if not all, fire and rescue services are pressing governments to act and introduce legislative measures so that residential fire sprinklers become much more widely used.

Summary

Wales has taken a major step forward in the fight against fire; they will surely be joined by others soon. It therefore behoves all involved with the provision of good quality housing to take note. After all, as one delegate bluntly put it at a recent seminar on the topic: "housing is currently so scarce we really cannot afford to let it burn down." ■

References:

[1] The Domestic Fire Safety (Wales) Measure 2011 (Commencement No.1) Order 2013

[2] Cost Benefit Analysis of Residential Sprinklers for Wales – BRE Global – April 2012

[3] Guidelines for the Supply of Water to Automatic Fire Sprinkler Systems – National Fire Sprinkler Network Water Liaison Group – December 2013

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Isle of Wight – a Unitary authority with a wide range of resorts that is re-inventing its product offer

The coastal challenge

Phil Evans, Head of Policy and Analysis for VisitEngland, examines the planning challenges facing seaside resorts...

Two years ago VisitEngland, the national tourist board, launched a series of Tourism Action Plans together with the wider tourism industry to help take forward some of the long-term priorities identified in England's first Strategic Framework for Tourism (launched in 2010). The Framework was created to help bring together the many disparate elements of the wider visitor economy and enable them to contribute to a national growth agenda. Some specific areas such as seaside resorts were identified as locations facing a particular set of challenges and worthy of special attention.

Coastal resorts are one of the most misunderstood types of location and yet the very essence of an English summer seaside holiday represents the epitome of how we see our domestic tourism 'product'. Most people over 30, as children, have probably experienced an English seaside holiday and most will look back on it with a degree of affection. The media has, on the whole, had less empathy with the English seaside holiday concept, and despite the regular images of packed summer beaches whenever we have a mini heat wave, they are just as likely to highlight moody shots the following day if the weather breaks or to focus on a dilapidated holiday infrastructure.

The truth is that despite the additional problems that many resorts face, on the whole they have survived and still deliver their original function (in a few cases they are now into their third century). Through adaption and diversification, resorts can both succeed as

"The importance of maintaining and refreshing public realm cannot be underestimated because it attracts and encourages private sector investment in redeveloping existing, and creating new businesses."

great places to live, work and play, whilst offering an ideal way to accommodate sustainable growth, recognising that tourism is a key element to help us climb out of an economic recession, and providing jobs at all levels in a way that few other industries can match.

There are some great resorts in England and they come in all shapes and sizes. Part of the problem in trying to define a model of best practice, both for planners and tourism managers, is that no 2 resorts are alike – they all have a unique heritage, patronage, physical development, natural features and degrees of attractiveness. One of the key advantages our resorts have over foreign competitors is that they are not homogenised concrete 'book shelves' of the kind one sees in both contemporary and developing overseas coastal destinations – they are each a special place and most have strong individual identities. Think of Brighton, Bournemouth, Blackpool, Torquay, the Isle of Wight, Scarborough – the list goes on. The Department for Communities and Local Government (DCLG) identified 37 'principal' standalone seaside towns, but VisitEngland has identified over 100 such resorts that depend on tourism as their main industry. The Seaside Resorts Action Plan (referred to above) clarifies how collectively we can help maintain the prosperity of these destinations. Local government, in particular the planning sector, can play a central role in this process.

More than any other type of destination, seaside resorts are defined by their public realm. The infrastructure needed to support coastal locations such as piers and promenades also creates a sense of place that unifies what would otherwise be a collection of disparate and often competing businesses. The importance of maintaining and refreshing public realm cannot be underestimated because it attracts and encourages private sector investment in redeveloping existing, and creating new businesses. This has been reflected in Blackpool where major investment in the Tower and the Pleasure Beach has followed the substantial public sector investment in the promenade and other public realm. Larger resorts however, also face disproportionate costs owing to their scale, but this is not always forthcoming in terms of their eligibility for funding.

Blackpool has invested £800m on infrastructure improvements including a new tramway, sea wall, promenade and town centre improvements plus private sector investment in major attractions

On top of the infrastructure issues there is also a disproportionate cost of other provision provided by local authorities in coastal areas. This can range from welfare costs, supporting higher than average ratios of people receiving benefit, through to the needs of

Brighton – branded as 'the city by the sea'-an example of the unique aspects of each resort location

caring for the elderly and infirm. These factors are not fully recognised and therefore appropriately funded, resulting in a greater demand for support from within local authorities and from their own budgets.

The long-term decline in the need for hotels in seaside resorts has created an additional problem related to welfare issues. As surplus stock becomes redundant, local authorities are pressurised into allowing change of use and often this will be to Houses of Multiple Occupation (HMOs). Whilst this might satisfy a short-term need and facilitate access to housing, HMOs are frequently found in or within close proximity of the commercial hub of the town (or to the seafront), and this has a negative impact on both the tourism identity of the resort and on other tourism-related businesses being able to trade effectively.

Conversely, there is a need for good quality, affordable housing to allow workers in the full range of jobs that service the tourism sector to both live and work long-term in resorts, many of which have higher than regional average housing prices, due to their appeal as holiday destinations. As there is no '1 size fits all' solution to coping with some of these problems facing resorts, how can planners and public administrators ensure that they contribute positively to the future prosperity of such destinations?

The first thing to remember is that this is far from being a lost cause. Resorts have always had to adapt, so there is a degree of resilience they have unlike other towns. While Government is focussed on paths to economic recovery, they can contribute, through increased visitor expenditure, to play a central role in growing the national economy.

Perhaps the key focus for planners to consider should be the issue of change of use. It is a complex matter in seaside towns especially amongst Victorian or Georgian accommodation stock, because most property is fulfilling a role it wasn't originally designed for and has already evolved over previous decades. For example, a large number of resort hotels were originally large detached houses or 'villas' which have been extended over the years and which have had to accommodate new kitchens, stairwells, fire escapes, en-suite facilities and even indoor swimming pools. Many will have been sub-divided into smaller rooms and will have ad hoc extensions and Mansard roofs added. Many guesthouses and B & Bs will have been smaller private homes, very often terraced, with limited parking facilities.

Coastal resorts have been losing serviced accommodation for a number of years and there remains over-capacity in numerous locations. In some ways, it is a good thing that surplus stock is changing back to its original use, and especially to fulfil the needs of the housing market. The problem is that it is largely the wrong type of accommodation that has the potential for being lost to housing. In resorts this will often be prime seafront property that can command a high price for development or demolition into flats. It is not always the lower end, poorer stock that is granted change of use but generally middle-range (3-star) accommodation which has a larger land envelope, and which commands higher prices. Destinations are thus at risk of being left still having overcapacity issues and a downgrading of their hotel offer.

Whilst it is a matter for destination managers – the tourism specialists, to re-shape their product, offer and to adapt to new growth markets, their task will be near impossible if further loss of potentially good hotel accommodation continues at the rate it has been doing.

England's seaside resorts are a unique gift we have inherited and we must not let them be lost into becoming expensive to maintain towns that happen to be beside the sea. ■

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Making the most of our public buildings

Planning for Change

Many public authorities are trying to reduce the number of buildings that they occupy, either to generate cash or to reduce future overheads. Such plans usually depend on shuffling staff around in order to free up a building or two for sale or letting. There may even be ambitions to adapt an older building to host a new initiative or re-launched services.

However, hasty changes or disposals can lead to problems further down the line. In two recent cases I found that past sales of land behind premises had eliminated a vital fire escape route, so useful floor-space was lost in making the layout safe again.

Office Planning

Was your office layout planned or did it just evolve? As architects, we can help to make it more efficient, but the best results are obtained when a client takes a wider view of delivering an effective service.

A common mistake is to focus only on how many workers you can fit into a given space. This leads towards 'hot desking' solutions which frankly are only effective for staff who spend a lot of their time out 'on the road'. Even then it can be tricky if everyone tends to be back in the office at the same time of day. There will often be scope to plan layouts more efficiently, but making workers feel like battery hens may only reduce morale and effectiveness.

For all the promises of digital technology, a lot of office space is still taken up with filing cabinets and document shelves. All office space is not equal, so it's better to concentrate files and supplies in less attractive corners, enabling staff workstations to move closer to the windows.

Other Users

If you envisage sharing space with other agencies, remember to allow time for assimilating their requirements too. Different management styles or operating needs can bring unexpected problems so early consultation with prospective partners is vital – don't find out too late that your activities are incompatible!

Remember too that reception areas and enquiry counters are opportunities to convey key messages to your service users. Follow up any facelift scheme with regular 'house-keeping' to ensure that displays are current and furniture does not stray into access routes.

Extending Use

The typical council's buildings extend to many other uses beyond offices. There may be scope for more usage of public buildings, adding evening or weekend activities, or different seasonal uses through the year. Aim to make more use of the past investment and fixed costs that are already there.

Making it Work

But before you commit to this approach, has anybody checked that the buildings can cope with the new expectations?

Can all the proposed activities fit within the space, or will you need to extend? Can access be improved while keeping sensitive areas secure? What major repairs are needed in the years ahead? Will the new uses need planning permission or other consents?

As a minimum, it is essential to identify critical parts of the proposals, and the likely lead-in time to obtain necessary approvals.

The main design effort may not be started until funding is firm, contingent on selling a redundant site, for example. Yet if you don't have the time or budget for a detailed study at present, maybe I could help with a quick appraisal to see if your concept could work with the premises that you have?

Contact Alan Piper for advice on single properties or groups of buildings.

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A low carbon red tape challenge

Naomi Luhde-Thompson, Planning Campaigner for Friends of the Earth discusses how the government has rigged planning policy to favour oil and gas, while tying the renewable revolution up in red tape...

Renewable energy development suffers from a lack of certainty in England. The new planning practice guidance published in July 2013 does little to improve the situation. This is in stark contrast with unconventional onshore oil and gas development, which the government is pushing ahead with. While new consultation opportunities have been added to onshore wind, some site notifications for onshore oil and gas have been removed.

The renewable and low carbon energy practice guidance places an emphasis on the visual impact of renewable energy proposals, which is particularly unhelpful for community-led and smaller scale projects. The guidance conflates environmental impact with visual impact whereas guidance for onshore oil and gas development barely registers environmental and visual impacts. An interesting comparison is that the word 'visual' is mentioned 22 times in the renewable and low carbon energy guidance, while 'pollution' only gets 3 mentions in the onshore oil and gas guidance.

Renewable and low carbon planning practice guidance

While there is a growing interest and enthusiasm in community energy – for instance the Community Energy Fortnight, and the support from across the political spectrum for community energy during some of the recent Energy Bill debates – there are 3 main barriers to the kind of transformation that other countries have seen. These are finance, grid and distribution access, and certainty.

There is welcome support for community led initiatives in the practice guidance: 'Local planning authorities may wish to establish policies which give positive weight to renewable and low carbon energy initiatives which have clear evidence of local community involvement and leadership.'

The level of ambition for renewable community energy in the UK has to envisage a place where everyone has access to a project – for instance on

Image: © Friends of the Earth

their own home, a local share offer, a local co-operative, a school installation, or in local business parks.

Despite the helpful mention in the practice guidance of community-led schemes and heat, planning policy on renewable energy as a whole requires more certainty before community-led schemes will be able to take off as they have in countries such as Denmark and Germany, where the planning system is not a lottery.

It is disappointing that while the National Planning Policy Framework (NPPF) paragraph 97 states: 'To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources.'- the planning practice guidance completely fails to take this further. In paragraph 6 it states: 'The UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.'

Stronger planning practice guidance could have been a great opportunity for local authorities to be proactive in identifying sites and ambitions around renewable energy delivery. Many local governments in countries such as Germany, Denmark and Sweden are setting 100% renewable energy targets and forging ahead with developments that have both micro, and macro, economic and environmental benefits.

Altogether the practice guidance could be much more positive and supportive of renewable energy development, and should have much more ambition, acknowledging and encouraging the scale of transformation that we need.

Onshore oil and gas guidance

In comparison to renewables, the assumption of need for unconventional oil and gas within the practice guidance is directly contradictory to the legal status of climate change mitigation and reduction in the UK. Mitigating climate change requires a strategy to reduce emissions, not a free-for-all. It is a concern that the practice guidance muddies the situation both for councillors, planners and communities, leading to the possibility of legal challenge down the line.

The onshore oil and gas guidance fails to mention the precautionary principle. This is a principle at the heart of environmental law to which the UK Government has committed since the UK signed the Rio Declaration on Environment and Development in 1992. This states (at Principle 15) that:

‘where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation’.

This is further bolstered by Article 191(2) of the Treaty on the Functioning of the European Union which declares that EU policy on the environment ‘shall be based on the precautionary principle’.

There is also growing evidence in the UK and globally of the serious environmental impacts from hydraulic fracturing – or fracking – to ecology, climate, water resources, air quality and seismic activity.

UNEP’s Alert published in 2012 [1] states that;

’Fracking should be avoided in areas of water scarcity, in close proximity to densely populated areas, and/or in areas where it can impact on agricultural production.’

It goes on to point out that:

‘Although only very recent, the history of UG (unconventional gas) exploitation already includes instances of water contamination, leakages to soil, wide-scale land clearing and negative health impacts. Furthermore, increased extraction and use of UG is likely to be detrimental to efforts to curb climate change.’

It also cites the need for a very specific regulatory framework for unconventional gas.

Further, the European Commission recently identified water contamination, water resource depletion, air pollution, biodiversity impacts and noise as high-risk concerns in its August 2012 report [2].

Failing to properly consider cumulative impacts and water impacts could lead to unsound decisions – as local planning authorities may not be aware of the full implications when considering applications. Nor can the most adverse effects be mitigated. There are many unknowns with regard to unconventional oil and gas development. In addition the impact of large scale onshore oil and gas extraction would be a contributor to climate change. Groundwater pollution should be strictly avoided – the precautionary principle contained in the Water Framework Directive is that it should not be polluted at all.

Conclusion

Planning practice guidance as a whole should support the Government’s ambition to tackle climate change adaption and mitigation as set out in the Climate Change Act. This means being clear that developments such as renewables that contribute to mitigation are wholeheartedly supported, while unconventional fossil fuels are justifiably curtailed. ■

[1] (http://na.unep.net/geas/archive/pdfs/GEAS_Nov2012_Fracking.pdf)

[2] ‘Support to the identification of potential risks for the environment and human health arising from hydrocarbons operations involving hydraulic fracturing in Europe’ August 2012 (http://ec.europa.eu/environment/integration/energy/pdf/fracking%20study.pdf).

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Sustainable planning – What's in it for the future?

Jan Malmgren, Executive director for sustainable planning and development in the city of Varberg, discusses whether we're missing something in regards to sustainable planning...

Sustainability is high on the agenda everywhere, but for many, it is simply a question of how to balance economic aspects against environmental. Lately, social and cultural aspects have risen to become more important, especially after repeated issues of local conflict in many countries across Europe. Is this a symptom of the bad state of health in sustainable planning? Are we missing something?

It is well worth reiterating the conclusions made by the Brundtland Commission in the 1987 report "Our common future". In this report, 3 main pillars of sustainable development were identified: economic growth, environmental protection, and social equality. As much as the concepts within each of these 3 pillars are commonly known to most, the potential of considering the true value of striving towards a more sustainable future is often neglected. Too often, sustainable planning is compromised by other goals. Failing to work with sustainability can therefore have hazardous consequences, and even undermine the very basis for our societies.

Modern European democratic and political systems are very much based on Jean-Jacques Rousseau's idea of 'the social contract', dating back to his 1762 treatise 'Of The Social Contract, Or Principles Of Political Right'. It develops the concept around why people should give up their sovereign rights to a few elected representatives. The core of this idea, is that each person places his authority under the direction of the general will. This involves certain rights and responsibilities that are equal to everyone in society.

Take Sweden for example, where there is a long tradition of political involvement. There were once elected representatives and political assemblies in almost every village. Everyone felt involved and knowledgeable about the decisions being made on a local level. However, as urbanisation progressed, much of the political representation followed and moved to the cities. The people in rural areas felt abandoned and less involved in the decisions that, to them, were being made over their heads. As this trend continues today, with more decisions moving even further away within Europe, many citizens feel marginalised and question the political system. This is much easier to do today, especially in consideration of the internet revolution and the widespread use of social media. In the long run, such a development can quickly undermine the democratic system and result in a less stable world for all.

In 1992, when nations from around the world gathered in Rio de Janeiro, Brazil, to discuss the state of the Earth, it was truly a first attempt to discuss local government in a more globalised world. What followed, manifested in Agenda 21, was a road map not only for dealing with environmental challenges, but actually for taking the idea of the social contract into the next century. It builds on the hard won insight that today most of the challenges we face in communities are much more alike than just a century ago, and that the only way forward is to involve all in feeling a greater responsibility for our common future. We need to reinvent a local platform for dialog and decision-making. ■

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Lessons to learn from flat roofs

Tony Millichap, Technical Manager at Kingspan Insulation Ltd discusses the problems that flat roofs can cause to educational buildings...

Refurbishment is a major consideration for the many aging schools across the country and it presents an opportunity to not only improve aesthetics, but also to cut energy bills by upgrading levels of insulation. The limited resources that are now available to the public sector also mean that every investment in refurbishment needs to last, so durability and long term performance are vital.

One problematic area for many educational buildings is the roof. A leaky flat roof is often the result of membrane failure due to ponding or stress from repeated foot traffic.

The provision of a fall in a warm deck flat roof is one way of avoiding the problem of ponding, and is commonly achieved in one of 3 ways: screed laid to falls; falls achieved by the use of tapered insulation; or falls achieved by the use of timber firrings under a plywood deck. Tapered insulation offers the greatest benefits in terms of thermal performance, speed of construction, overall cost and minimal structural load bearing.

Having different thicknesses of insulation over the roof area can present a particularly complex challenge when it comes to calculating Part L compliance. LABC produced a Technical Guidance Note that clarifies how these U-values should be calculated. This guidance was sorely needed, as there has historically been significant variability in how they are calculated by differing system designers.

To ensure standardisation the LABC guidance states that all U-values should be calculated in accordance with BS EN ISO 6946 Annex C, a methodology referred to in BR443 Conventions for U-value calculations and thus required by Approved Document Part L[1].

Consideration also needs to be given to the durability of the insulation to be used. Mineral fibre, for example, can be adversely affected by repeated compression from foot traffic and, should the waterproof membrane fail, any moisture ingress can severely impact on its thermal properties.

Rigid thermoset insulation is highly resistant to the effects of compression due to foot traffic, helping to prolong the life of the refurbished roof. It will not sag or slump; it is resistant to the passage of water vapour, unaffected by air infiltration and carries no condensation risk. This means that it can continue to perform at an optimum level over the life of the building. ■

[1] www.kingspaninsulation.co.uk/Literature/White-Papers-and-Technical-Bulletins.aspx

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Avoiding an asbestos breach

Graham Warren ACAD Manager, details the challenges facing local authorities in the management of asbestos...

When it comes to the management of asbestos, local authorities (LAs) and similar organisations are in an unenviable position. Issues are varied, and include a huge variety of buildings under their control as well as the constant turnover of people with responsibility for managing asbestos on a day-to-day basis.

Budgets have been squeezed which creates pressure to opt for the cheapest quote on projects, and when this issue is added to the cutbacks in staff numbers, including the failure to replace staff members retiring or moving on, leads to a concentration of responsibilities on those who remain in post. These pressures can inevitably all come together to create asbestos management breaches, which all too often result in an exposure incident that can, and often do, end in prosecution.

Only the worst examples end in prosecution and a fine, but any breaches of regulations can now leave authorities with a significant bill to pay in the form of the Health and Safety Executive's (HSE) Fee for Intervention scheme.

The HSE can, and do, charge for their time if they identify a 'material breach' of a health and safety law. A 'material breach' is where managing agents have broken a health and safety law and the inspector judges that this is serious enough to notify them in writing. The hourly rate for intervention is £124 – and charges add up very quickly. The HSE budgeted for an income in the 2013 financial year of £17m and planned a 35% increase to £23m in 2014/15.

In my experience of working for LAs, management of asbestos has improved dramatically with a number of organisations developing and promoting best practice. Unfortunately, due in part to their unique situation, the risk of accidental exposure will always remain.

Exacerbating this situation is the often limited investment in systems and staff. Sending an employee away for a few days' training does not make them competent to manage asbestos, but all too often this is the situation many employees with responsibility for asbestos find themselves in. With this in mind, there is a growing movement for schools to be given a special position in asbestos management, and move to a programme of phased removal instead of the current best practice recommendation to manage asbestos containing materials (ACMs) in situ.

On a wider stage, a resolution on asbestos was adopted by the European Parliament in 2013, calling for the removal of all ACMs from public buildings by 2028 and an information programme for people about the risk of asbestos contamination in their homes. This is a mammoth task. Asbestos remains widespread throughout public and private sector properties and it is against this backdrop that LA asbestos managers operate.

About 45,000 people have died from asbestos-related diseases since Duty to Manage regulations came into force almost 10 years ago.

By now, most organisations have undertaken surveys and developed asbestos management plans for premises under their control.

HSG227 (A comprehensive guide to Managing Asbestos in premises) provides a seven-point strategy, and the more recent HSG264 (Asbestos: The survey

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guide) provides a simple flow chart to aid the management of asbestos.

In addition to the published guidance, most organisations also call upon the knowledge and expertise of external contractors to assist with asbestos management. Both HSE licensed asbestos removal contractors as well as surveyor or analyst organisations can offer expert help with this.

But how can you be sure that the organisation, in whom you are placing your trust, is well placed to be providing these services?

You should, of course, obtain suitable references but one solution is to look for ACAD membership and ACAD training. Our trade association is dedicated to the promotion of best working practice and as such is a long-standing member of HSE groups including the Asbestos Liaison Group and the Training and Competency Subcommittees. This close working relationship feeds into our audit activity and training, allowing us to continue to develop services from a long-standing position at the forefront of the asbestos industry.

Being a not for profit organisation, allows for re-investment for any surplus income in the quality of our training and represents all aspects of the industry. All members undergo a rigorous vetting process as part of the membership procedure, passing initial and follow up site audits.

As part of our programme of continual improvement, we are moving to a new phase of unannounced site audits to provide the best learning opportunities for members and an ever-higher level of assurance for client organisations. All our trainers have excellent technical knowledge and represent ACAD at a variety of events and groups including the Joint Union Asbestos Committee (JUAC.)

Underpinning all of our activities is the Technical Committee, containing a number of industry experts, who are held in the highest regard throughout the asbestos and related industries. Members continue to influence current policy, including the recent consultation exercise to produce the new Approved Code of Practice (ACoP) for the Control of Asbestos Regulations 2012.

When you have vetted and appointed an organisation to assist you with the management of asbestos, an often overlooked element to remember is your own development and knowledge base.

To help fill this gap ACAD has introduced a new membership category, designed specifically to help improve clients' knowledge through regular information updates and our trade magazine – TICA Times, published 3 times per year.

Local Authority Membership is FREE to public sector organisations, which do not hold an HSE Asbestos Removal Licence.

ACAD membership is designed to give local authorities the best advice, support and updates to keep pace with the requirements of managing asbestos in their buildings in the 21st Century. ■

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Third Party Certification unravelled

Graham Ellicott, CEO of the Fire Industry Association (FIA) explains why buying fit for purpose fire safety products are a must…

If you purchase goods or services you want to be confident that they are fit for purpose. Not just that, it is a legal requirement for the purchaser of fire safety services to ensure that the person or organisation carrying out the work is 'competent'. As most people commissioning this work are unlikely to be experts in fire safety, how can they be sure that the individual or organisation they are hiring is competent to do the job?

Third Party Certification (TPC) is evidence that a service or product adheres to certain standards. An independent expert, the third party, has assessed the service or product and certified that it complies with those standards. TPC can cover the technical qualities of what is being provided, but it can also relate to environmental, ethical or other qualities. This allows purchasers to be confident that what they are purchasing is fit for purpose, or that the supplier is capable doing the job.

What is Third Party Certification then?

TPC is when a Third Party Certification Body (CB) assesses the qualities of a supplier by comparing them with the requirements of a particular scheme. If the organisation meets these standards then it is issued with a certificate detailing the scope of its certification.

The supplier (now a Certificated Organisation) is permitted to claim compliance with the scheme, display copies of their certificate and, in most cases, display the logos of the scheme and the CB. Depending on the scheme, then they will also issue certificates of conformity for the product/service they provide, such as a complete fire alarm system or extinguisher service.

There is a wide range of TPC schemes covering such diverse areas as the installation and maintenance of fire alarms, extinguishers, sprinklers, emergency lighting, fire risk assessments, fire doors and passive fire protection, so you need to make sure you use a supplier with certification to the relevant scheme for your needs.

How do I do that?

First you need to identify the right scheme owner or CB for the product/service you are looking to commission. Once you've identified this you can visit that scheme owner or CB's website and draw down a list of potential suppliers.

You can also go to the FIA website and draw up a shortlist of members in the relevant product and geographical area. TPC is a requirement of membership to the FIA as we strongly believe that TPC is the only effective way of ensuring the quality of products and services provided for fire safety.

Ensuring you use competent suppliers is both a legal requirement and a practical necessity. With such a range of schemes available, you can make sure your specific needs are met. Getting it wrong can be very costly through fines, legal costs, loss of property and loss of business. By seeking out suppliers with TPC, the risk is substantially reduced and your peace of mind is greatly increased.

For more information on Third party Certification and for a list of schemes download the FIA's whitepaper at www.fia.uk.com/en/third-party-certification. ■

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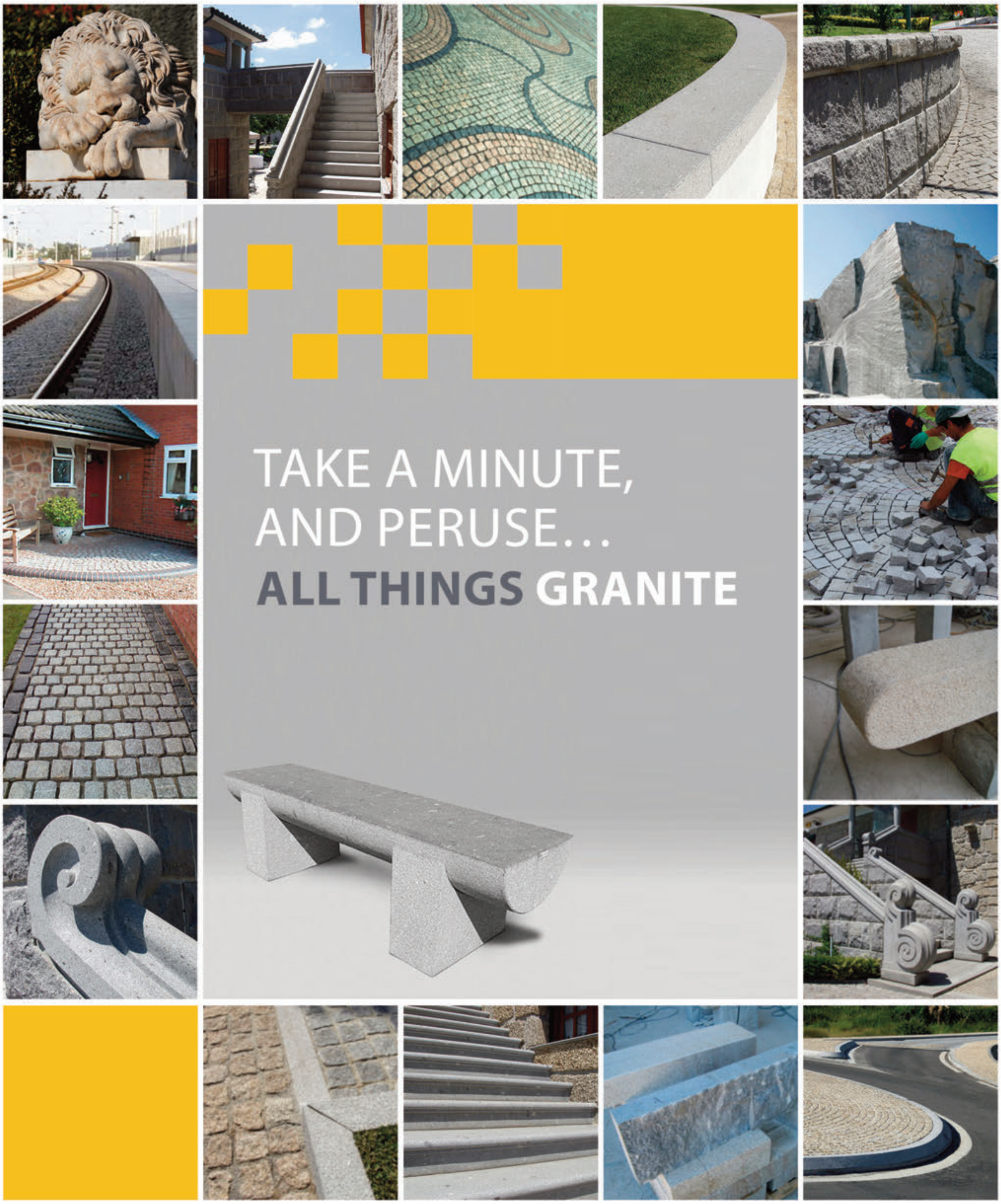
TAKE A MINUTE,
AND PERUSE…
ALL THINGS GRANITE

Encouraging sustainable transport in local areas

Transport is a sector that affects everyone, whether it be via train, catching a bus or driving through rush hour traffic. However, road transport is reportedly the second largest source of greenhouse gas emissions in the EU after power generation.

In June 2012 the government invested a further £266m to support local authorities in delivering local economic growth whilst cutting carbon emissions from transport. Over £1bn has been invested by the government in sustainable travel across England as part of the Local Sustainable Transport Fund.

Local authorities across the UK are taking on board recommendations to support and encourage sustainable travel. Councils like Bristol City Council have developed ideas such as the Hydrogen Ferry, a bike recycling scheme, and the Cycle Network.

Reading Borough Council have also been awarded a grant of £20.7m from the Local Sustainable Transport Fund which will help to launch a number of measures in the local areas. These include creating an additional 7,200 daily bus trips, 12,050 daily walk trips and 2,300 daily cycle trips across the town. The council estimates that all these efforts combined would result in a 29,000 tonne reduction in CO_2 and an estimated economic benefit of £340m for the town as a whole.

The above examples show just how local authorities are already working towards low carbon technologies within transport. However, is there more that could be done? How should local authorities be encouraging sustainable modes of travel? Here a number of experts discuss whether enough is being done to drive forward the importance of sustainable transport in our local towns and cities throughout the UK...

Sustainability is the future

Sustainability is a thread that is woven through Labour policies, and our pledge is to reinstate the target to reduce emissions in the aviation sector to 2005 levels by 2050 – a pledge scrapped by the Coalition Government.

Not all pollution at airports is caused by aircraft, but also by congestion around nearby roads, which is why we as a Shadow Transport team call for improved surface access and public transport links. We also recognise the valuable role that light rail and trams play in increasing connectivity and reducing emissions – as a Blackpool MP, I'm proud of the tens of millions of pounds from the previous Labour Government which has given us a renewed tramway and 21st Century tram fleet in the town.

But we also pursue these low-carbon policies because of the range of related benefits they bring to commuters and communities. Cycling and walking improve public health, cut costs at a time when the cost of living crisis bites harder than ever, and reduce congestion, making our roads safer and easier to navigate. Greater use of public transport and schemes like car shares carry many of the same advantages; local authorities must be given the tools they need to innovate and implement successful strategies for sustainable transport.

The Campaign for Better Transport has demonstrated the limitations of investment plans being submitted by new local transport bodies. Projects focused on bus travel account for only 7% of the total, compared to 22% under the old centralised funding system, and there are no projects aimed at cycling. The government should do more to promote the sustainable dimension, but must also recognise the constraints

on local authorities. The Coalition Government cut £300m from local transport funding upon coming to power, and we continue to see incremental cuts to crucial budgets, such as a further £10m shaved off funding for supported bus routes. The Local Government Association (LGA) has also raised concerns that the Department for Transport (DfT) money is incorporated into the Single Local Growth Fund, suggesting that forward-looking transport plans could suffer as the money is diverted to plug the gap in other pressing areas of local need.

Beyond its environmental impact, sustainable transport also means making our communities more stable and cooperative, bridging the gap between jobs and skills and ensuring that no locality is left behind as business in other areas grows. The transport budget is no quick fix to the need for central government savings; too much rides on the effectiveness of our transport network in terms of sharing tomorrow's economic prosperity and reducing the imprint that we leave on the world around us.

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Taking small journeys off-road

The government's Spending Review did not bring good news for local transport. It brought worse news for local schemes aiming to make it easier for people to walk and cycle, for which there was almost no mention at all. In fact, the Road Action Plan that followed the Spending Review demonstrated without a shadow of a doubt that for this government it doesn't matter what the question is; the answer is always roads.

The government also announced, what it termed the biggest infrastructure spend in decades. But of the £70bn to be spent on transport from the infrastructure fund, a staggering £42bn of this is allocated to HS2. Just imagine what that kind of money could do if it was spent in local communities improving access to walking and cycling routes and public transport services.

In slightly brighter news, the Local Sustainable Transport Fund (LSTF) has been extended by £100m for 2015-16, with most of the relevant transport funding streams being shifted into the £2bn per year Single Local Growth Fund (SLGF). The LSTF, by providing dedicated national government funding for transport, has been responsible for kick-starting more projects that encourage walking, cycling and public transport, and place initiatives that enable these ways of travel at the heart of their plans and strategies. So it is great to see the continuation of LSTF for another year, but we need long-term certainty over this funding stream to ensure that councils are encouraged to continue planning for the future.

This kind of forward-thinking will help local authorities to make walking, cycling and public transport as alternatives to car travel and the most viable option for getting around. They'll be able to ensure buses have priority and are not delayed by traffic, as well providing safe walking and cycling links that actually link people from where they live to the places they need to go.

Two-thirds of the journeys we make by car are under 5 miles – distances that could easily travelled on foot, by bike or on public transport. These journeys are mainly around the places we live – they're trips to the shops, to school and to visit friends. What a difference it would make if these cars were taken off the road, helping to reduce congestion, tackle pollution and keep residents healthy, thereby stopping the enormous drain that physical inactivity and obesity places on our health budgets.

It is vital that central government provides certainty around transport funding at a grass roots level. Local Authorities need to be able to tailor their transport plans to their community so that money is spent wisely and has the greatest impact on local journeys.

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Innovating transport technology

Innovation is central to delivering a sustainable transport system that can cope with the growing pressure to move people and goods more efficiently.

A major transformation in performance is needed and, as the UK's innovation agency, the Technology Strategy Board is playing its part in making that happen.

That can range from backing for research into the environmental impact of electric cars in the North East, to supporting the development of a Smartphone app to help young people make better use of public transport in the South West.

Transport is one of our priorities. As well as supporting the development of the new clean technology needed, it is our job to ensure that the UK is well-positioned as a global developer and supplier of new technologies.

The UK has a strong transport industry, employing more than 1.3 million directly, and there will always be a need for powered transport. But this need has to be balanced with the impact on carbon emissions and the cost of congestion to the UK economy, which is predicted to reach £22bn by 2025.

The Technology Strategy Board has a leadership role across the whole transport industry, promoting innovative solutions to these challenges and turning them into opportunities for UK industry. We bring people together to share ideas, tackle challenges and make new technological advances.

Businesses can make a difference, for example, by working on ground-breaking projects to reduce carbon emissions. There are also opportunities to integrate different energy sources on systems and vehicles, not just to serve the UK's transport needs but to take a greater share of a global market.

An independent report has predicted that our low-carbon vehicles programme will boost UK gross valued added (GVA) by £8.2bn over 10-15 years.

Our funding is encouraging road haulage operators to switch to low-carbon commercial vehicles and track the reduction in carbon emissions. Examples of other funded projects include a prototype for a hybrid engine that can be retrofitted to double-decker buses and another exploring the use of the latest digital technology to manage urban congestion corridors. We encourage applications that involve local authorities; for example, we plan to run a competition later this year for in-field trials that demonstrate the potential benefits of transport integration.

Innovation can be stifled by a lack of opportunity and our Transport Systems Catapult centre is providing world-class facilities to pursue and test these cutting-edge ideas.

We know that focusing innovation effects on technology alone is not enough. Encouraging people to make different travel choices is another challenge but, by making it easier and more convenient for people to choose sustainable transport, there is potential to ease congestion on our roads and support economic growth as well as reducing carbon emissions.

To do that we need to think about the journey as a whole, making it as seamless as possible, and to encourage integration across different types of transport. Over the last year we have committed up to £63m to support business-led transport projects, studies and workshops, taking a collaborative approach to research and development.

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MUNICIPALITIES AND THE AUTOMATED CAR PARKS

automated car parking in a residential area

In recent years the terms for car parking in urban centres, commercial and residential areas have changed considerably. Free parking opportunities are declining, whereas the number of new cars is increasing. Hybrid vehicles and electric cars also increase the call for parking spaces with charging options.

The need for extra parking in cities has been addressed in the planning and development of new territories with new parking areas and car parks. The additional demand for parking in existing town centres could be resolved with one way streets, buildings with multiple purpose (e.g. combination of commercial and parking space, parking under the public parks and under the roads), with external extensions of existing objects; or with the replacement of existing buildings with new parking houses.

All these solutions must deal with the demands for parking given not only by the ground surface, but also with the height of vehicles parked, which creates a new view of the architecture through the parked vehicles.

From an environmental perspective, the surface parking places has the greatest impact on the declining value of the recreational and relaxing character of urbanised areas.

With excessive production of parking areas, the decline of green areas, parks and cycling routes has been observed.

As claims of certain localities are too high, regulation comes into play for the entry and movement of cars in different parts of the cities. Zones with certain restrictions are created or price regulation comes into consideration. However, all regulations also have their regulatory limits, and the key problem is lack of, or utilisation of space.

The possible solution for these issues is Automatic Parking Systems and technologies ("APS") to address the needs of future parking in towns and municipalities. The key issue is to develop a more efficient use of existing space with the use of existing and proven parking technologies of APS, where the major advantage is doubling the amount of parked cars in the foreseen parking structure, overall simplifying parking while increasing asset protection and the safety of drivers. The entry and exit stations of the APS, simply called "terminals" are usually monitored with CCTV. Several automated parking systems could be monitored from one central security place using the internet connection and remote monitoring. Experiences from Asia for the last 10-15 years are such that APS has become a common part of people's life.

automated car parking in a city centre

automated car parking in a hospital

Today's APS parking solutions are much more advanced from the simple solutions at the beginning of the development. The new technology is proving reliable, even in mass deployment (e.g. in department stores, public parking lots, airports etc.).

IDOPS, cooperative is an experienced company in design and consultation for the installation of automated parking systems and technologies, and addresses alternatives for parking solutions in newly designed buildings, but also for the expansion of existing projects and car parks.

IDOPS, cooperative provide advice, planning and administration of technically, economically, and operationally proven technology solutions for investors and developers.

APS as a new alternative in the development of parking policies constitute the projects and solutions that may in the future attract just the public sector.

Municipalities emphasise their natural advantage of their direct access to the parking projects in towns and urban areas. Due to land ownership and subsidised financing schemes offered by banking houses just for municipalities, new parking

automated car parking underneath the city park

projects may arise where the primary concern is not to satisfy only the economic interests of the owner (e.g. as short as possible due of the loans for car parks) but, thanks to a long-term cheaper finance, the distributed or mass solutions can be supported across the board to deploy highly effective automated parking technology to benefit citizens. This means the price for parking could be low and at the same time solves the problem of a lack of spaces. Parking houses built by municipalities may be a cheaper priced option to commercially or privately develop parking, where the fast return of investment is not the only priority of the project (mostly financed from the loans). The demand for new car parks with APS generated by cities and municipalities could be a valued program in the crisis.

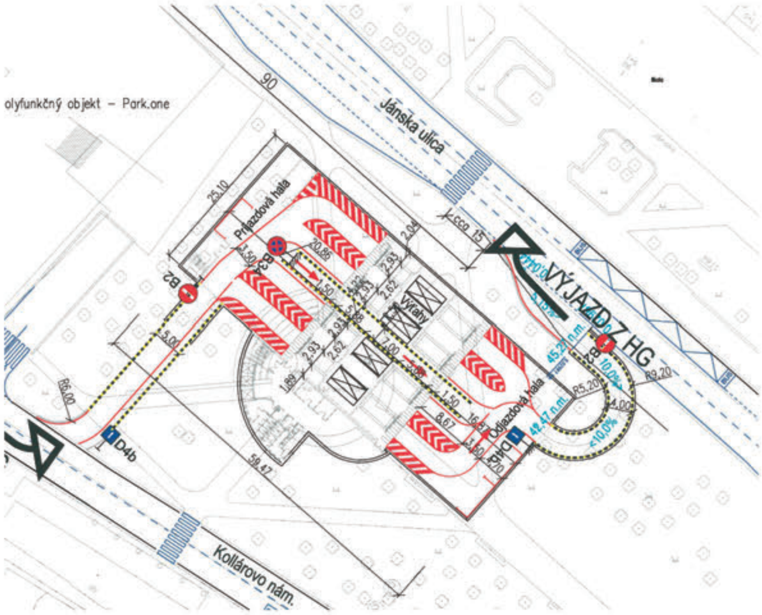
These projects may bring new opportunities and support for the local businesses which could participate in the development. With the use of cheaper credit resources, it is possible to build the parking facility in places where the demand from the public is high, but less attractive for commercial investors. Good parking solutions play important roles in effective utilisation of urban areas. The specialised consultants and companies with knowledge in the design of APS are ready to help with concepts and the design of parking houses.

The advantage of automated parking systems in smaller and suitably distributed urban areas is that problems are solved consistently with the need, unlike mass car parks.

Advantages of parking with APS compared to conventional parking solutions.

Car parks with APS have better technical and economic (pay back) parameters over existing conventional parking garages and, provide them with benefits which include:

- ► Automated systems allow continuous operation with minimal requirement for manpower;
- ► Spatial and area savings of up to 50% compared to conventional classic garage (extension area in conventional garage for one car is about 95 m^3, in APS about 45 m^3);
- ► No fumes and exhalation within the system – the cars are moved and parked in APS with the engine stopped;
- ► No requirements for fire and escape routes;
- ► No interior lights except security lighting for maintenance;
- ► No elevators and stairways for users are necessary, as the terminals are usually accessible from public roads;
- ► Barrier-less solutions;
- ► Minimising the size of parking spaces without the need to open car doors while the car is parked;
- ► Minimising the height of car park parking levels (approx. 50% of the height of a conventional garage);
- ► No stress trying to find a parking space;
- ► No risk of car damage or car theft while in the parking system;
- ► No air conditioning required in APS;
- ► The operation of APS is automatic;
- ► Parking buildings with APS are ecological;
- ► After the end of its lifetime, parking equipment is easily removable and recyclable



automated car parking underneath the city park – traffic plan

automated car parking underneath the city park – plan and section views

The road to carbon reduction

European Commissioner for Energy, Günther H. Oettinger details his proposals for the Energy Roadmap 2050 and how it will influence Europe's energy strategy…

Energy is one of the biggest challenges Europe is confronted with today. While being at the helm of the fight against climate change, our economic competitiveness fully depends on a reliable energy supply at an affordable price. And in turn, this depends on adequate infrastructure. Until the end of the 1990s, boosting demand was more important than energy efficiency and energy suppliers primarily served national markets. From now on, energy systems need to be designed to run on variable renewable and low-carbon fuels at continental level. Is Europe ready and able to take up the challenge? Will Europe be able to reduce greenhouse gas emissions by at least 80% by 2050 and maintain competitiveness? The European Commission launched the debate with the publication of the Energy Roadmap 2050.

What does the Energy Roadmap 2050 say?

Through an analysis based on scenarios, the Roadmap 2050 indicates possible pathways to achieve the decarbonisation of the EU energy system. The purpose is not of choosing one over another, rather of identifying the common emerging elements that support long-term approaches to investments. The real world will never look like these models, but the conclusions drawn from them give fundamental signals for our future policy.

The main conclusion of the Roadmap is simple: transformation of the energy system is technically and economically feasible – if we make the right choices.

Five key lessons can guide us in making the policy choices to shift our energy system towards a more sustainable future.

(1) Energy savings are crucial

There is a vast amount of untapped potential to save energy. Significant energy savings would need to be achieved in all decarbonisation scenarios. Primary energy demand drops in a range of 16% to 20% by 2030 and 32% to 41% by 2050, as compared to peaks in 2005-2006. Thus, energy efficiency is crucial for the energy system transformation – at the stages of production, supply and end use. To this end, the EU has adopted a new energy efficiency directive which obliges Member States to implement binding measures such as an obligation scheme for energy companies to cut down energy consumption at customer level, and an obligation for Member States to renovate annually 3% of the central government's building. It also encourages energy audits for SMEs and an obligation for large companies to assess their energy saving possibilities.

But we must be more ambitious. In the long-run, higher energy efficiency in new and existing buildings is crucial. Nearly zero energy buildings should become the norm. Products and appliances should fulfil the highest energy efficiency standards. In transport, efficient vehicles and incentives for behavioural change are needed. All this requires more action both at EU and Member State level.

(2) The share of renewables rises substantially
The analysis shows that the biggest share of energy supply technologies in 2050 comes from renewables. In 2030, all decarbonisation scenarios suggest growing shares of renewables of around 30% in gross final energy consumption. In 2050, renewables will achieve at least 55%, up 45 percentage points from today's level. This is both a huge change and a challenge. Renewables will play a central role in Europe's energy mix, from technology development to mass production and deployment, from small-scale to large-scale, from subsidised to competitive. All these shifts require parallel changes in policy. Incentives in the future have to become more efficient, create economies of scale, and lead to more market integration.

Günther H. Oettinger, European Commissioner for Energy, European Commission

(3) Building the necessary infrastructure is key
With electricity trade and renewables' penetration growing up to 2050 under almost any scenario, adequate infrastructure at distribution, interconnection, and long-distance transmission levels becomes a matter of urgency. The existence of adequate infrastructure is a condition sine qua non. In the long-run, the extension of the current planning methods to a fully integrated network planning for transmission, distribution, storage and electricity highways looking at a potentially longer timeframe will be needed. And above all, we need to develop more intelligent electricity grids, able to deal with variable generation from many distributed sources, allowing for new ways to manage electricity demand and supply.

(4) The European energy markets needs to be fully integrated
A European market offers the right scale to assure access to resources and to provide the huge investments needed. The single energy market must be fully integrated by 2014. An additional challenge is the need for flexible resources in the power system, as there will be more variable renewables. Access to flexible supplies of all types (e.g. demand management, storage and flexible back-up power plants) has to be ensured. Another challenge is the impact of renewable generation on the wholesale market prices. Whatever the answer, it is important that market arrangements offer cost-effective solutions to these challenges. The cross-border impact on the internal market deserves

renewed attention. Now more than ever, coordination is required. Energy policy developments need to take full account of how each national system is affected by decisions in neighbouring countries.

(5) Investing in low-carbon technologies

Carbon pricing can provide an incentive for deployment of efficient, low-carbon technologies across Europe. The ETS is a necessary condition for the energy system transformation, but it is not sufficient. Higher public and private investments in R&D and technological innovation are also crucial in speeding-up the commercialisation and the modernisation of all low-carbon solutions, whatever the sources are. In particular, Europe will certainly have to develop further Carbon Capture and Storage (CCS) from around 2030 onwards in the power sector in order to reach the decarbonisation targets.

New opportunities for Europe

Indeed, it is cheaper and easier for Europe to work together. The European market gives us the chance to make economies of scale and speed up new markets for low-carbon technologies. Between now and 2050, there must be a wide-scale replacement of infrastructure and appliances throughout the economy, including consumer goods in people's homes. Modernising the energy system will bring high levels of investment into the European economy. It can bring more jobs, more quality of life, and more growth. Decarbonisation can also be an advantage for Europe, placing itself as an early mover in the growing global market for energy-related goods and services. Energy system transformation also helps to reduce import dependency and exposure to the volatility of fossil fuel prices.

The Way forward

At EU level, we had set ourselves three targets for 2020 - a 20% share of energy from renewable sources, a 20% increase in energy efficiency and a 20% cut in CO_2 emissions compared to 1990 levels. Now, in 2013 we must look beyond this date and reflect what should happen in 2030. This is why we launched a consultation before coming forward with concrete proposals. We have to decide which climate and energy targets will be set, whether they are technology-specific, mandating a certain proportion of renewables for example, or if they shall be general emissions targets requiring Member States to curb their CO_2 output using the technology they prefer. We must soon decide on the 2030 framework to allow Member States to prepare and to give certainty to investors in industry – because for investors, 2030 is already tomorrow. ■

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Leading electronic control for vehicle energy optimisation

A key factor for environmentally-friendly fuel-efficient vehicles…

In the near future, substantial changes in mobility and land transport will take place. Population growth, energy issues, environment preservation and improvement of life quality and mobility safety will require revolutionary innovations. The automotive industry will need to undergo a deep transformation to react and adapt to mobility needs. Market development will be dominated by a widening demand from Asia, while breakthrough innovations will characterise mature automotive markets.

Electric technology will support mobility innovation. Today, pure electric vehicles (PEV) are still a niche product and will grow with a regular positive trend in next 10 years. Hybrid electric vehicles (HEV) and plug-in hybrid electric vehicles (PHEV) are becoming mass-market products in Western Europe, USA and Canada. In 10 years, more than 15% of passenger cars will be either hybrid/plug-in hybrid or pure electric. Key economic drivers for hybridisation are: CO_2 emission standard targets (95 g/km by 2020 in EU) for passenger cars and fuel economy (i.e. cost of ownership reduction) for industrial and commercial vehicles.

However, impacts of vehicle electrification go beyond the vehicle itself – rethinking infrastructures and implementing a high degree of integration at different levels. Clearly, electric power generation and distribution have to be restructured to meet PHEV and PEV recharging requirements to exploit the related business opportunity.

As far as vehicle and powertrain management is concerned, CO_2 emission mitigation and fuel saving require real-time on-line optimisation. Integration with traffic monitoring and control systems, navigation systems, fleet management systems and so on, can provide fundamental real-time data to this purpose. At the same time, global management systems can improve their strategies by exploiting vehicle state information.

Finally, a high degree of integration is required within the vehicle, for an intense overall vehicle energy optimisation. Achieving concrete benefits from hybrid technology in actual vehicle use is not straightforward. A detailed investigation of the application is necessary for a successful design of the hybrid powertrain and tight integration between powertrain and vehicle components and their electronic control is essential.

Pure Power Control S.r.l. (P2C) is a SME located in Navacchio Technological Pole, near Pisa (Italy). Founded in 2008, the mission of P2C is to design and develop environmentally-friendly propulsion systems for land vehicles and marine applications. P2C is a partner of automotive and off-highway OEMs and Tier 1 suppliers, as well as shipyards, for the development of innovative low-emissions and fuel-efficient hybrid powertrains, based on either electric or hydraulic technology. P2C is also a provider of engineering services for model-based systems engineering, modelling and simulation, and advanced electronic control.

In the development of hybrid electric/hydraulic powertrains, P2C provides its partners with:

- A comprehensive model-based systems engineering design and optimisation of the hybrid electric/hydraulic powertrain;

- Advanced solutions for hybrid powertrain control and vehicle energy management, with tightly integrated and efficiently operated powertrain subsystems and foremost optimisation of vehicle efficiency and performances. Depending on the application, the proposed solutions can be either available on a rapid-prototyping platform for hybrid vehicle concept demonstration or included in an existing on-board electronic control unit as well as implemented on a dedicated additional unit.

Control is a key factor for environmentally-friendly fuel-efficient intelligent vehicles, which safely travel and operate by understanding and interacting with the environment.

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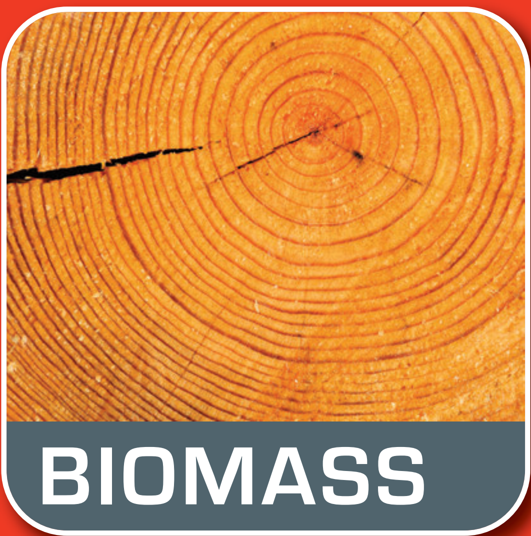

SOLARFOCUS

SOLARFOCUS develops, manufactures and supplies cutting edge technology solutions for sustainable building heat management solutions for domestic to medium scale projects (2.9-420 kW). The Austrian company with its headquarters in Steyr has more than 20 years experience in the combination of solar and biomass heating technologies for space heating and hot water preparation. The company has set new standards in terms of efficiency, intelligent controls and easy to use and functional product design. With our highly trained distribution and service partners we ensure you a nationwide service network all over the UK.

SOLARFOCUS
makes you independent

The SOLARFOCUS product range: The all in one solution for your complete building heat management.

1. Biomass boilers:

- Pellet boilers (2.9-70 kW)
- Log wood boilers (13.4-60 kW)
- Dual fuel boilers: logs + pellets (6.3-60 kW)
- Wood chip boilers (11.4-60 kW)
- Cascades and clusters up to 420 kW

SOLARFOCUS biomass boilers are equipped with intelligent controls which are easy to use for complete building heat management.

The cutting edge technology (e.g. down-firing combustion patented automatic heat exchanger cleaning and much more) inside the boilers guarantees highest efficiencies and lowest emissions. This will result in low life-time costs and fuel savings for you.

All SOLARFOCUS boilers are MCS accredited which ensures they are supported by RHI grants.

2. Solar thermal collectors:

- SOLARFOCUS CPC collectors ensure a consistent high output and are completely maintenance free.
- Highest quality flat collectors
- Swimming pool absorbers

3. Storage and fresh water technology

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The age of the renewables

Karlheinz Konig from Solarfocus GmbH discusses how renewable technologies can contribute to a sustainable energy economy...

Renewable energy is of ever-increasing environmental and economic importance. The finite nature of fossil fuel resources means that prices are on the increase and we have had to wake up to the need for sources of renewable energy. A wide range of technologies have been established and are recognised as growth industries by most governments.

The introduction of legislation over the last decade throughout Europe has been aimed at increasing the development of renewable technologies that will pave the way for a sustainable energy economy.

Biomass

A result of this shift towards renewable energy has been the growth of the biomass industry. Heating with wood can be a clean and cost effective solution, but this is not a technology that every plumber understands – nor is it wise to look for the cheapest installer – in the long term it will cost far more to run a poorly-designed or badly-installed system than a good one. Don't be fooled into thinking that because two installers are quoting radically different prices for the same boiler that you are comparing like with like either – the boiler is only one part (albeit an important one) of the whole picture.

Currently, a significant percentage of biomass installations are what are known as 'district heating schemes'. This is because government incentives up to now have focused on commercial and multi-property schemes. A district heating scheme is a system of distributing heat from a central heat source to more than one property – anything from two to an infinite number of properties. This sort of system is ideal where several buildings are close enough to heat from a central boiler. Care homes, schools and office buildings are eligible for incentives too – and with a high heat demand such buildings are ideal for biomass systems.

To maximise system efficiency, provide redundancy

cover, and keep emissions to a minimum, a cascade system of multiple boilers is often used.

Biomass fuel most commonly comes in the form of wood chips, pellets and logs. It is vitally important to consider which fuel(s) are right for a particular installation early in the design of the system, and to ensure that adequate access is available for fuel deliveries, as well as giving full consideration to the size and design of the fuel store itself – too many biomass systems are installed with fuel stores that are near impossible to refill.

Large fuel stores mean that delivery frequency is reduced, so the size of fuel store is often a compromise between available space/access and delivery frequency. For urban installations, pellets are often the preferred fuel as chip needs approximately 3.5-4 times more space than pellets. 1m^3 of woodchip provides around 800kWh compared to over 3,000kWh for a similar volume of pellets.

Government incentives

The non-domestic Renewable Heat Incentive (RHI) was introduced by the Government in November 2011 and pays those who invest in a renewable heating installation such as a biomass boiler, heat pump or solar thermal panels, a guaranteed 20 year tariff for every kWh of heat produced.

Such installations can therefore provide a very useful income stream. Turning heating bills into income sounds too good to be true, but with the RHI designed to provide a return on investment of 12%, plus cheaper heating bills, this is now achievable – indeed thousands of installations are currently generating an income from the RHI – and for some this can run into many tens of thousands of pounds.

It seems odd then that local authorities have been so slow to take up this lucrative opportunity. The majority of biomass installations to date seem to have been in rural areas – on farms and small estates where several properties are heated via a district heating scheme. Perhaps this reticence within the public sector is based on poor previous experience of such technologies which are generally due to the procurement process used.

Unless such systems are correctly designed and installed, and by local installers who are committed to providing excellent after sales care, the experience of such systems is unlikely to improve. Maybe it is time to look again at how such systems are commissioned by the public sector to ensure that the quality of installations improves, after sales care is incorporated into the contract and perhaps then the sector can begin to really see the benefit from renewable technologies and the RHI. ■

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A cleaner, greener future

Judith Shapiro, Policy and Communications Manager at the Carbon Capture & Storage Association explains the crucial role CCS will play in reaching climate change targets...

One could be forgiven for thinking that the climate change challenge is mainly a power sector issue. After all, the power sector (in the UK) does contribute the largest share of emissions of any single sector – reaching 40% of total emissions in 2012. In addition, UK policies to tackle climate change are in the main focussed on decarbonising the power sector first. This is obviously firstly because of the significant role that a decarbonised power sector will play in meeting the UK's statutory target to reduce greenhouse gas emissions by 80% by 2050. Secondly, the power sector has many low-carbon technology options available to it – some of which are already being deployed at commercial scale.

However, decarbonising the power sector alone will not enable us to reach the 2050 target – other sectors will also need to do their part. Of the other key economic sectors (such as transport and residential), the industrial sectors contribute a significant share of UK emissions after the power sector. These sectors, known as 'energy intensive industries' – although perhaps they should be called 'carbon intensive industries' – emit 55 million tonnes of carbon dioxide per year, equivalent to 66% of all UK industry emissions and over 10% of the UK total. However, attempting to address these emissions is not a simple task. Firstly, this is not just one sector, but a large variety of industries such as steel, cement, chemicals, refining and gas processing. Secondly, many of these sectors produce carbon dioxide as part of their process as well as the fuel they use. This means that even if they could decarbonise the emissions from the fuel use (through low-carbon energy technologies), this would only solve part of the problem.

We mustn't forget that these industries are already implementing options to reduce emissions (mainly through energy efficiency), however most of these options have been exhausted. Carbon capture and storage (CCS) is actually the only technology that will enable these industries to significantly reduce their emissions – because CCS captures the carbon dioxide produced in the process as well as from the fuel.

Again, the application of CCS to these industries varies greatly between sectors – some sectors already separate out the carbon dioxide and this could be captured almost immediately with the right CCS policies in place. Others still need to develop and trial a range of capture technologies.

The deployment of CCS in these industries is to a large extent dependent on the availability of CCS transport and storage infrastructure – pipelines and offshore storage sites. It is a well-known fact that the most cost-effective way to develop CCS is in clusters, building pipelines that are able to carry carbon dioxide from a number of emitters (power and industry) and transporting this carbon dioxide to a network of offshore storage sites. We are fortunate in the UK in that many of our power stations and energy intensive industries are already clustered together in some of the key regions in the country – making the UK an ideal place to develop CCS clusters.

Over the last 2 years, the UK has been intently focused on developing policies to decarbonise the power sector – particularly through the introduction of Electricity Market Reform (EMR) which aims to deliver a low-carbon electricity system for the UK made up of (in the main) renewables, nuclear and CCS on fossil fuels. Whilst this is an extremely welcome development for CCS – it represents the first framework anywhere in the world that places CCS on a level footing with other low-carbon technologies and provides an incentive mechanism to support CCS beyond demonstration projects – it does little to support CCS in industrial sectors.

In parallel with the implementation of EMR, we urgently need to see the development of policies that can begin to support CCS in energy intensive industries. In some ways, there is a greater urgency for these industries as many of these industries are facing tough decisions regarding their continued existence in a carbon constrained world and without the right CCS policies in place, these industries would likely have to relocate to other countries. Were this to happen, the impact on the UK economy would be severe.

There are positive signs that things are moving in the right direction. Just before Christmas, the Government announced the successful award of a Front End Engineering and Design contract to the White Rose CCS project at the Drax power station in Yorkshire. As part of this FEED contract, the project will include the development of the 'Yorkshire Humber CCS Trunkline' by National Grid – a pipeline able to carry carbon dioxide from a number of power and industrial sources. In addition, on December 13, the Tees Valley City Deal was approved – to boost process industries in Teesside and unlock £28m of private sector investment. Crucially, as part of this City Deal, support will be available to advance CCS in industrial sectors.

Energy-intensive industries form the backbone of the UK manufacturing economy, and together they have a combined turnover of £95bn, they directly employ 160,000 people and support a further 800,000 people in the wider supply chain. CCS will play a crucial role in maintaining these vital industries in the UK, delivering significant benefits to the UK economy. We urgently need to develop the policies to make this happen. ■

Comment from Ed Davey – Secretary of State for Energy

White Rose is the first project to be allocated funds under the government's £1bn CCS Commercialisation Programme.

At the Drax coal-to-biomass conversion plant, the £700m planned project will burn wood pellets rather than coal, and is expected to reduce carbon emissions by 80% compared to coal.

At the opening of the Drax power station, the Secretary of State for Energy and Climate Change, Ed Davey, said: "It's crucial that we safeguard our energy security by generating green electricity on UK soil that protects bill payers from volatile foreign energy imports.

"Our coal industry has powered Britain for more than a century, and today we're seeing a clear roadmap for its future – whether by converting existing coal plants to cleaner fuels, or building state-of-the-art power stations that mean coal is truly clear. While at the same time, creating new green jobs for Yorkshire.

"I'm proud that the UK is at the forefront of developing Carbon Capture and Storage – which could be a game-changer in tackling climate change and provide a huge economic advantage not just to this region, but to the whole country."

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Carbon Capture Transport and Storage...

...essential infrastructure in a low carbon world

When fossil fuels are burnt or used in some industrial processes carbon dioxide (CO_2) is produced. Because CO_2 is considered a major contributor to global warming part of the solution to climate change is preventing that CO_2 from entering the atmosphere. Carbon capture and storage (CCS) is one way to do this – CO_2 can be removed from the exhaust gases of power stations and industrial plants, transported to a storage site, and pumped more than a kilometre underground into stable geological formations that will keep it there permanently like the oil and natural gas accumulations of the North Sea. The formations that can be used include rocks filled with saline water (aquifers) and former reservoirs of depleted oil and gas fields.

CCS is often confused as a power generation technology. In fact CCS is really a suite of many different technologies that are combined together through the capture, transport and storage chain in an analogous way to natural gas or LNG production, transport and utilisation – except in reverse! CCS is the only way to dispose of the unwanted CO_2 that we produce, and will continue to produce, in power and industry as we transition to a low carbon energy world. In this way, CCS can be likened to other waste removal activities (such as industrial waste and general household refuse).

Industries based on processes for which there is no alternative for decarbonisation (such as steelworks, natural gas processing, cement and fertiliser plants) will need to begin deploying CCS before 2030 in order for the UK and Europe to meet 2050 emissions targets. The CO_2 transport and storage (CTS) infrastructure required for removing these industrial emissions will therefore be an essential minimum scale that will eventually need to be built across the UK and Europe.

Over the coming decades fossil fuel generation capacity will also continue to be utilised in order to meet power demand at affordable prices and balance variability in supply from renewable sources. A proportion of this will have to be fitted with CCS to abate emissions. It therefore makes a lot of sense to utilise this opportunity by facilitating a pathway for CCS based on smart, no regrets early deployment of CTS infrastructure for use with some power stations that can then be expanded to industrial CCS in the future. The UK is well placed to pursue such a strategy and at the same time make use of its skills and supply chain capability in the major industrial regions around the country.

The Crown Estate's Role

The challenge of energy decarbonisation in the UK has placed The Crown Estate at the forefront of the world's biggest clean energy programme including offshore wind, wave, tidal, and CO_2 transport and storage. Our management of the UK seabed, continental shelf and subsurface storage rights includes spatial planning and providing leases for all these activities.

The Crown Estate manages a highly diverse property business valued at £8.6bn for the benefit of the nation. It pays the surplus revenue, profit, to the UK Treasury: in 2012/13 this was £252.6m. Over the past ten years The Crown Estate has paid over £2bn to the Treasury.

Our Energy and Infrastructure portfolio includes almost all the entire seabed out to the 12 nautical mile territorial limit and the rights to explore and utilise the natural resources of the UK continental shelf (excluding the hydrocarbons).

CCS in the United Kingdom

The UK government is currently taking steps, through its competitive CCS commercialisation programme, to help CCS equipped power generation become a viable option in the UK's energy mix by the 2020s. As part of this process, The Crown Estate has signed the UK's first two Agreements for Lease for the permanent geological storage of CO_2 with the developers of two projects that have been selected to receive financial support for engineering design studies.

In order to progress the development of a CCS industry beyond these projects, a large number of stakeholders are working together to identify ways of reducing costs and overcoming technical and financial barriers that conspire to make CTS infrastructure deployment difficult. A key to the success of CCS will be to avoid unco-ordinated deployment of full chain integrated projects over the next decade that do little to promote a common transport infrastructure or the development of storage hubs that can contribute to economies of scale. Such 'point to point' CCS projects will suffer economically from having expensive transport and storage sys-tems, and will not set up the lower cost options for future use of CCS in industrial applications.

The map opposite shows just how for-tunate the UK is when it comes to CCS as a decarbonisation option. Regions of the country with major emission sources can be seen to be in relatively close proximity to offshore locations of potential storage sites. Further-more, the sites in the East Irish Sea, Central North Sea and Southern North Sea are all located in amongst oil and gas producing areas of the continental shelf. Indeed, the poten-tial for CO_2-enhanced oil recovery is a large enough opportunity in its own right to make CCS an interesting busi-ness proposition if it wasn't for the complex coordination associated with the different parts of the CCS chain. So, whether it is the construction and operation of onshore capture plants and pipelines in the industrial regions, or the construction and operation of offshore pipelines and facilities for storage (including platforms), the eco-nomic prize from synergies between existing UK industries and supply chains and deployment and operation of essential future CO_2 infrastructure should be substantial.

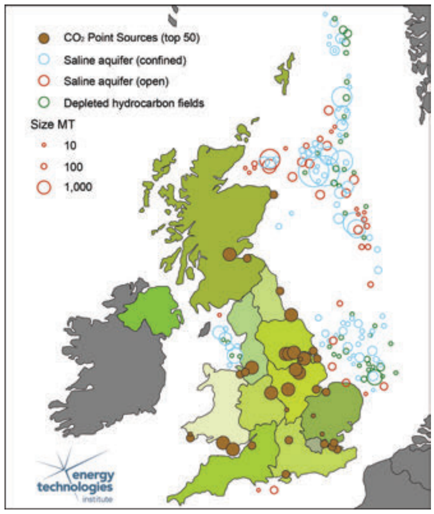
An Opportunity for the UK

The International Energy Agency (IEA) has stated that 'the deployment of Carbon Capture and Storage (CCS) is critical to global efforts to mitigate climate change and keep global warming below 2°C to pre-industrial levels', and that this applies to Euro-pean efforts as well.

To achieve the IEA 2°C Scenario for emissions abatement 310 million tonnes of CO_2 will need to be stored per year in Europe by 2030. To put this in context, this is less than 10% of total EU annual CO_2 emissions in 2011. Is there enough storage? The UK Energy Technologies Institute has estimated that there is a 50% probability of 78,000 million tonnes of storage capacity beneath the UK continental shelf alone. As can be seen from the map above, the storage potential in the North Sea is no further away from northern Europe than the gas fields of Norway that supply natural gas through the large export pipelines.

The storage space (and use of) in the North Sea creates an export opportu-nity for selling the service of perma-nently disposed CO_2 that originated from European countries needing storage. Many countries will be look-ing to the North Sea rather than using dry land storage potential.

Under such a future scenario even larger economic opportunities will exist for UK supply chains that cur-rently support the North Sea oil and gas industry. If a CO_2 transport and storage sector is encouraged to develop it will be possible to use skills, services and supply chains from oil and gas construction and operations. Any roll-out of CCS power and indus-



trial plant throughout Europe will increase the need for supply chains providing capture technologies and associated services.

So what more can the UK do to ensure this CCS opportunity is not lost in the coming decade? One effective way in the early-to-middle phase of CCS development would be to encourage oil and gas operators to appraise stores in and around productive fields or those approaching decommission-ing. However, because there is cur-rently no existing economic reason for these companies to do so, investment in such activities will require a mixture of additional government policies and support mechanisms beyond those focussed just on reforming the domestic electricity market.

THE CROWN ESTATE

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Energy that matters

James Smith, Chair of the Carbon Trust, sets out why we need to learn to love Carbon Capture and Storage (CCS) – before it's too late…

In front of the Public Liaison Committee in Parliament, the Prime Minister laid out the importance of carbon capture and storage (CCS) to the setting of a 2030 carbon target, and in helping resolve the current debate on how much gas in the UK is safe to burn. An expert report had concluded that, using carbon capture and storage (CCS) as part of the energy system, the UK's carbon reduction goals could be met at a cost of about 1% of GDP. Without CCS the costs could be tens of billions of pounds per annum higher. A pretty important finding, given the background of rising electricity costs to the UK consumer.

Yet despite the words and reports, the technology has made disappointing progress over the last 10 years. Despite high profile initiatives in the UK and elsewhere, not one integrated, large scale electricity plus CCS project has yet been implanted anywhere in the world.

It is a technology with few friends and apparently no natural owners. It's easy to see why. It's big and capital intensive and it keeps unloved fossil fuels going. It has none of the instinctive attraction of solar panels, wind turbines, wave and tidal power devices.

You can't blame electricity generators for not liking it. After all, it's a substantial additional capital cost on their sites and reduces the flexibility of their plants. In addition, generators are not offered revenue support for the additional costs in the way they are for wind farms and other renewables. So with a weak carbon market, the bottom line commercial incentive for electricity generators to build CCS is pretty well non-existent.

While Shell for example, with government financial support, is building a billion-dollar CCS project linked to oil sands production in Alberta, most coal and gas producers are wary about whether electricity markets will deliver a decent commercial return on their CCS investment. This might explain why their advocacy for CCS is currently muted.

But carbon capture and storage matters because, like it or not, relatively cheap coal and gas will be the major fuels for the next few decades in generating electricity. Unless CCS is used to stop the resultant carbon dioxide getting into the atmosphere, man-made climate change cannot be contained.

We also need "negative carbon" technology if the worst of climate change is to be avoided. That means actually removing carbon dioxide from the atmosphere. CCS together with sustainably derived biomass for electricity generation, is by far the best game in town.

Of course it's not that nothing is being done. The UK's Energy Bill has provisions to support the technology. R&D costing £125m is underway and a £1bn government competition is being run for a demonstration project. This has linked up with European efforts to run demonstration projects. Unfortunately the number of candidate projects has been diminishing and the years have been slipping by. The goal of getting some tens of demonstration projects running worldwide by 2020 now looks highly improbable.

So what must be done? We all must get real and get behind the technology. Government and industry must work together urgently to build the essential demonstration projects over the next few years. The carbon market, post 2020, must be underpinned now with very strong signals for a carbon price that will stimulate all kinds of low carbon investment, including CCS. And the government must continue with R&D to reduce costs and risks.

The UK has much to gain. We have 2 of the world's top oil companies skilled in the injection and storage of carbon dioxide. The UK is home to a highly capable process engineering industry. And, we have a very strong university research base to help optimise the current technology and reduce costs. The economic up sides are there for the taking. Research co-ordinated by the Carbon Trust has found that CCS industrial development could contribute £3-16bn to UK GDP cumulatively to 2050.

But needless to say we are not alone. The United States are world leaders where capture technology has been running in large-scale plants for decades, and the CO_2 based on a well-established 6,000km pipeline network is used both in fizzy drinks and enhanced oil recovery. The US government is sponsoring major research into improving CCS technologies. Governments and companies in Asia also recognise the commercial opportunities. But we do have the capacity to compete provided we get on with it now.

So to help the planet, keep down the costs of low carbon energy and to create a new and exciting commercial opportunity for British Industry, lets learn to love CCS – before its too late. ■

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Capitalising on energy

Matthew Pencharz, London Mayor's Senior Adviser on Energy and Environment highlights the important role of district heating networks for the capital...

London is facing huge demographic pressure. The 2011 Census proved what many Londoners had already deduced from horrendously congested tubes, trains and buses, spiralling property prices and news headlines of insufficient primary school places – that our earlier population forecasts had seriously underestimated the capital's growth. Since Boris Johnson was first elected, just under 6 years ago, London's population has increased by an extra 600,000 people. It is forecast to grow by another million by 2021 and to 10 million by 2030. This is the fastest growth in our history – faster than in the inter-war period when the Tube was thrown out into the developing suburbs and Metroland was built.

We face the challenge of meeting this growth: ensuring the homes are built, there is enough capacity in our transport system and delivering investment in our utilities. A fundamental requirement is to ensure that London's development is not held back by a lack of energy infrastructure. This pressure is set within a context of the Mayor's very challenging carbon targets – to reduce London's CO_2 emissions by 60% from a 1990 baseline by 2025. Targets, which have become all the more challenging considering the city's population growth and the need to be mindful of energy's affordability. Looking further forward to 2050, the Mayor's Climate Change Mitigation and Energy Strategy has a carbon emissions reduction target of 80% in line with Government policy.

Our challenge has not been made any easier by a failure of the previous government to have a coherent plan on where this country's energy supply is to come from. In just 2 years, as nuclear generators come to the end of their operational lives and older fossil fuel plants are decommissioned in response to EU emissions rules, we will see this country's energy headroom at peak demand, reducing to around just 5%. Ofgem has already warned that the likelihood of brownouts will increase from 1 in 12 to 1 in 4.

To exacerbate the problem even further, short-term party politics has caused great uncertainty in the

Matthew Pencharz
London Mayor's Senior Adviser on Energy and Environment
Greater London Authority

energy industry. Since October last year we have had a taster of the tenor of the energy policy debate that will rage between now and the next general election. A debate that has resulted in the slamming on of the brakes for much of the desperately needed energy infrastructure investment that this country needs.

The Mayor cannot stand by and see London's international competitiveness suffer whilst working to meet the capital's demographic pressure, so he is pulling every lever in his power to de-risk investment in London's energy infrastructure in order to meet his target, that by 2025 25% of London's energy demand will be met from local generation and district heating networks. These are far more efficient than relying on electricity generated elsewhere – often hundreds of miles away in the country. Generated locally, the waste heat produced as a by-product can be recovered and used to displace the use of natural gas in buildings for space heating and domestic hot water. Given that we consume more energy in heating buildings than on either transport or electrical appliances, London's dense mixed-use urban developments have huge potential to benefit from this cheaper, more secure and lower carbon energy supply arrangement.

An example of the potential of this vision is Islington Council's Bunhill Heat and Power Heat Network in Clerkenwell. The Bunhill energy centre houses a 1.9MWe gas CHP engine and 115m^3 thermal store, and the heat network comprises of one kilometre of trenching which holds two kilometres of insulated district heating pipework. The £3.8m energy centre and heat network were funded by grants secured from the Greater London Authority and the Homes and Community Agency.

Phase 1 became operational in November 2012 and is now producing cheaper, greener heat for over 850 local homes and 2 leisure centres. The project is set

to cut fuel bills to households by around 10% from this spring. There are also over 160 new build homes that have chosen to connect to the network so that they can also benefit from low carbon heat at competitive rates.

The next phase of the Bunhill Heat and Power Heat Network is being delivered as the London demonstrator for the CELSIUS project, which is delivering a pioneering new approach to district heating in the UK. CELSIUS is a European Union co-funded project of 5 cities led by Gothenburg. It is demonstrating new and innovative technologies and approaches that will help the large-scale roll-out of district heating and cooling projects across the EU. The overall aim of the project is to save energy by developing approaches and techniques that allow cities to capture and utilise far more of the waste heat that they presently generate. This has huge potential. Last year the GLA published a report, London's Zero Carbon Energy Resource – Secondary Heat, stating that in theory 38% of London's heat demand could be met from secondary heat sources if exploited through heat networks.

The Bunhill scheme will capture 2 sources of waste heat, 1 from London Underground tunnels, and the other from an electricity substation, and will use it in the district heating network to help warm at least another 500 homes and cut their energy bills. This is a European first. The waste heat will be captured by heat exchangers and then heat pumps will be used to bring the water up to an appropriate temperature for putting into the district heating network. This reduces the need to generate primary energy from an additional Combined Heat and Power plant on this part of the network and provides the opportunity to make a financial saving on the project.

We hope that this demonstrator project will prove the concept that capturing low grade waste heat and utilising it through heat networks can deliver cheaper, more secure and lower carbon energy to Londoners, alleviating fuel poverty and reducing our carbon emissions.

However, district heating networks face a range of significant barriers, including multiple stakeholders of different local authorities and developers, an ingrained culture and scepticism, to overcome. For example, the large upfront capital investment, long development timescales and uncertainty about connecting future heat customers, currently create too much risk for many private sector investors.

The Mayor is therefore doing everything within his power to overcome these barriers to attract the necessary investment. He is working with London's boroughs to identify where schemes are financally viable, and should be brought to market. He is using the planning system to ensure new developments are able to connect to future heat networks, and, in order to meet the London Plan's stringent carbon emission targets this often means developments having an energy centre on site.

Working to remove other barriers, City Hall is the first public authority to apply for a junior electricity licence from Ofgem. By selling their electricity through the GLA, this should give local generators 20-30% better income for their electricity than through current wholesale arrangement through the 'Big Six' energy suppliers, giving a better return – which should attract more investment into city-level energy production.

With commodity prices likely to go in only 1 direction, and the need to keep costs down while also bearing down on our carbon emissions, heat networks such as Bunhill will play a major role in London's energy future. There is an up-front capital cost but this infrastructure will give investors a reliable long-term return – perfect for pension and assurance funds looking for infrastructure investments. The challenge of London's demographic pressure coupled with our dense mixed-use urban developments make the capital the place to invest in this vision. ■

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Plan and prepare

The Environment Agency explains how communities can take steps to prepare for flooding...

Flooding can be devastating and it poses a risk to life, property and vehicles and can force people out of their homes.

December 2013 was the stormiest since records began and was followed by further gales and extensive flooding in early 2014. It is likely we will see periods of prolonged and intense rainfall more frequently due to climate change, so it is important that we are prepared to deal with whatever the weather throws at us.

The National Planning Policy Framework (NPPF) is clear that local planning authorities, working closely with their communities, should proactively plan to adapt to climate change, taking into account flood risk, coastal change and water supply and demand considerations.

Working closely with communities through regeneration schemes and neighbourhood plans, there is an opportunity to make communities aware of steps they can take to protect themselves and significantly reduce the risk of flooding, both now and in the future. This includes identifying if they are at risk and encouraging them to sign up for free flood warnings, prepare a flood plan and take practical steps to protect their home or business.

Everyone in England can check if their home, or that of a friend, neighbour or family member, is located in a flood risk area by visiting the Environment Agency website or by calling Floodline on 0845 988 1188 – all they need is a postcode.

Those who are at risk can sign up to get free flood warnings[1] for their area by phone, text or email.

Steps communities can take to protect their home:

- There are a number of practical steps that communities and residents can take to help protect their homes. These steps can be taken as part of general home improvement work or maintenance, and also after a flood event to make homes more resilient in the future;

- These practical steps include keeping irreplaceable or valuable items on high-mounted shelves, fixing equipment like TVs to the wall and buying flood protection products such as flood barriers or airbrick covers. It's also a good idea to lay tiles with rugs, rather than fitted carpets and to arrange for non-return valves to be fitted to drains and toilets;

- Suggested steps that can be taken to make properties more resilient during flooding can be viewed on the Environment Agency website at the Interactive Flood House.[2] ■

For more information on how to prepare communities and residents for flooding, what they can do during a flood and how to repair their homes afterwards please visit our website www.environment-agency.gov.uk/flood or call Floodline on 0845 988 1188.

[1] https://fwd.environment-agency.gov.uk/app/olr/home

[2] http://www.environment-agency.gov.uk/shell/Flood_house_tips.swf

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Adjacent Local Government comments:

On 17 January 2014, Local Government Minister Brandon Lewis announced a funding package of £6.7m for local authorities affected by recent flooding and severe weather.

This funding is added to financial assistance already available to councils under the Bellwin scheme which enables councils to apply for financial assistance depending on local circumstances.

The costs of repairing flood defences damaged by the extreme weather are currently being assessed by DEFRA and will be set out soon.

Brandon Lewis has said:

"I have been hugely impressed by the efforts of the emergency services, local authorities, voluntary organisations and communities through the recent severe weather and now we are helping areas to recover and see life return to normal.

"This extra £7m that can be used to help affected communities, will provide local authorities and their partner agencies additional resources they need to support recovery.

"This will top up support councils can get under the Bellwin scheme to cover the costs of clearing up after severe weather and flooding, and the substantial funding councils already get for potholes.

Bio-securing our woodland

Austin Brady, Head of Conservation at the Woodland Trust discusses the impacts of disease and pests on our woodlands, and how we can mitigate the risks...

It's now just over 1 year on from the day that the devastating disease ash dieback was confirmed within the 'wider environment' in the UK for the first time. Up until the discovery last October at sites in Suffolk, including the Woodland Trust's Pound Farm Woodland, it had only been found on recently planted trees. Interest and concern surrounding tree pests and diseases had been growing steadily for some time as their incidence within the UK in recent years has increased. The outbreak of ash dieback fungus, Chalara fraxinea, however has triggered a major step change. Tree health issues have regularly made national news over the past 12 months and the UK's Department for the Environment, Food and Rural Affairs (Defra) now classes this as one of its top 4 priorities.

The growing concern and resulting action around tree pests and diseases has also been a top priority for the Woodland Trust itself. As a major landowning conservation charity managing more than 1,100 woods covering 190 square kilometres, the threat posed by a plethora of tree pests and diseases is already having a direct impact. Nearly 350 of our sites contain ancient woodland of which 70% is semi-natural ancient woodland – land which has been under tree cover since at least 1600. It is the Woodland Trust's mission to protect and create more native woodland within the UK whilst restoring areas of ancient woodland damaged through either a lack of, or inappropriate management. Pests like the Asian Longhorn Beetle (Anoplophora glabripennis) and Emerald Ash Borer (Agrilus planipennis) together with devastating pathogens such as Plane Canker (Ceratocystis platani) and ash dieback therefore pose a huge threat to the Woodland Trust's own estate and its wider work with government, community groups and other landowners.


Ash dieback symptoms

© WTPL/Mike Ryder

Upon the discovery of another pest or disease threatening our trees the first question is often what can we do? Unfortunately the UK and wider European experience usually shows us that eradication is nearly always impossible. Containment or disease 'management' is often the best case scenario. Can we stop these pathogens arriving in our forests? is often the next question. The UK as an island nation finds itself in a more advantageous position than most in Europe here, but again this is virtually impossible when we consider the huge volumes of live plants and associated soil, timber, biofuel and packing material being imported daily. In a globalised world where no one can afford, even if it were possible, to 'batten down the hatches' and close the border we need to recognise and accept the inherent risks of this trade and develop the most appropriate means of managing this risk. The European Union obviously has a large role to play here in regulating trade and setting industry standards. Its plant health regime is currently being reviewed and the proposals look very positive with an increased focus on surveillance, more stringent movement controls, greater prioritisation and a concerted effort to improve the collaboration and communication between official service, the private sector and the general public. However, the implementation of these new regulations is unlikely to happen before 2018 at the earliest. We must act now if our irreplaceable ancient woodland and relatively limited range of UK native species are to survive.

The Woodland Trust recognised the immediacy of these threats last year and swiftly implemented a three-point plan. The charity has always specified UK provenance seed for its woodland creation projects, but as of 2014 all trees will also be guaranteed to have been grown only in the UK. This immediately reduces the risk of introducing a pest or disease into the woodland as live imports of plants are one of the major 'risk pathways' identified by all government and stakeholder advisory groups charged with improving tree health.

An expert seminar on Tree Disease and Resilient Landscapes was hosted by the Woodland Trust and Defra in June this year. The seminar brought together 40 scientists, researchers, forest pathologists, woodland managers, professional bodies, government agencies and nature conservation NGOs to share experience and learning as well as to identify key gaps in knowledge and practice in relation to Chalara fraxinea and other threats. A summary of the seminar will shortly be published on the Woodland Trust website. As well as calls for better biosecurity at our borders and much better surveillance, detection and monitoring of pests and diseases that are current or anticipated threats, there was also much talk of improving our woodland's 'resilience'. Recognising the fact that we can never hope to keep out all threats and that some may arrive by natural processes the need to build resilience in our ancient and native woods is seen as the best way of safeguarding their conservation value in the long term. This will require different steps by many different parties but increasing the diversity of woodland structure, using a wider range of species and creating more genetic diversity within our woodlands will be key.

Ash dieback close-up

© Forestry Commission

The final point of the plan is a four-year partnership project involving the government Forest Research Agency, the Food and Environment Research Agency and a fellow charity, the National Trust. ObservaTREE is a LIFE+ funded project that will develop an early warning system for tree pests and diseases by engaging citizen scientists with leading tree health organisations to help detect and verify pests and diseases in order to avoid their spread and minimise woodland loss. Through the use of expert volunteers, trained by the Woodland Trust, the project will assist scientists with the investigation and filtering of tree health incidents reported by the public. This will enable tree health scientists to focus on the reports of greatest significance. The processes and experiences gained through this project will be shared with counterparts across Europe in an effort to ensure best practice is shared and the necessary international approach to tackling tree pests and disease is supported. This pan-European approach, shared with other initiatives such as FRAXBACK, will be essential if we are to learn from each other in order to ensure our forests can survive the current and future pest and disease threats. ■

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Locking down IT asset disposal

Ensuring you dispose of your end-of-life computers and mobile devices correctly and responsibly makes for a better night's sleep, suggests Steve Talbot of Restore-IT Efficient...

There are 54 million computers in the UK and 18 million of these are changed each year, according to Dr Steve Smithson, Senior Teaching Fellow at the London School of Economics, while estimates put the figure for mobile phones at around 500 million each year in Europe alone.

As well as highly confidential business and personal data, these pieces of kit contain a number of hazardous nasties like arsenic, cadmium and mercury that you certainly wouldn't want to find buried in your backyard.

Despite enforceable laws and regulations such as the Data Protection Act 1998 and the Waste Electrical and Electronic Equipment (WEEE) Directive, with its 65% recycling target set by the Health and Safety Executive (HSE), some surveys suggest that only a fraction of all these desktops, laptops, tablets, smart phones and other devices are dealt with correctly and responsibly. The number of scare stories about organisations who have been caught out by their poor asset disposal planning, crop up with monotonous regularity and would seem to bear witness to this.

So, what's causing businesses and organisations to act in this haphazard way, risking financial penalties and damage to reputation?

When questioned, it emerges that many businesses are nervous of sending their equipment for external destruction, their fears fuelled by reports of identity theft and corporate crime. They feel insecure unless they carry out the destruction themselves, which leads to errors of judgement and, effectively, much of the equipment ending up in landfill – buried in someone else's 'backyard'. It's enough to give an IT assets manager sleepless nights.

It doesn't have to be this way.

A quick look at the legal obligations will remind us of their clear and unequivocal nature. 1998's Data Protection Act, and subsequent additions, is based around 8 principles. For our purposes, half of them are directly relevant and cover from not keeping data unnecessarily long, to handling people's data according to their rights, to keeping it safe and secure and, lastly, to not transferring any of this information outside the UK without the correct protection. Likewise, the WEEE Directive and other legislation around the disposal of hazardous substances are quite categorical in laying out targets for recycling electrical equipment, how wastes should be carried, stored and disposed of – and in laying out companies' liabilities.

"A complex mix of materials including gold, mercury, copper and glass makes disposal, recycling and re-sale a job for specialists."

But that's compliance. Now we should consider the environmental and financial benefits to businesses of proper IT asset disposal – and this is where we could perhaps change our terminology to IT asset recovery. Each computer, for instance, may well contain up to 2kg of lead but it also uses small quantities of gold, platinum, palladium and copper in its construction. The WEEE Directive and other legislation was introduced to provide a framework for the safe channelling of both non-biodegradable and recyclable materials, but it also prevents these precious metals and other valuable materials being lost to the economy.

Not only that, organisations may like to consider that many of the models they wish to replace have a re-sale value somewhere else, locally and internationally. Indeed, this should be regarded as a revenue stream of value either to businesses themselves or in the form of donations to charities and local community groups.

So how can IT asset managers avoid those sleepless nights and, potentially, gain some kudos?

The asset disposal industry has a number of highly reputable operators –experts in their field, who handle the whole end-of-life process for their customers and make it their business to recover, not waste, as much material as possible. It's a job for specialists and services should offer, as a minimum:

- Secure collection of assets or on-site data removal facility;

- The latest high-level, government-accredited hard-drive data wiping technology;

- Correct recycling procedures so that the highest percentage goes for re-use;

- Transparent re-sale channels and revenue streams;

- Online auditing and Certificates of Destruction;

- A commitment to the environment and to the community with a 0% landfill policy.

Together, the industry and businesses can ensure a win-win situation for themselves, the economy, and the environment. ■

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Peace of mind

IT assets disposal that offers 100% security, 0% landfill and a share in re-sale profits…

At Restore-IT Efficient we've built our business of adding value to redundant IT and telecoms assets by offering clients a consistently high quality service, flexible thinking and industry expertise.

Our clients rest assured that all our processes fully meet or exceed legislation and accreditation guidelines and include:

- registering assets
- removing hard disks for destruction or data-wiping for re-sale
- refurbishing units
- reclaiming parts for re-building or re-sale
- recycling hardware and devices so that nothing goes to landfill.

Our specialist services, together with guaranteed levels of recycling, help local authorities unlock the residual value from their obsolete IT assets.

What we offer

Security – all drivers and processors, whether at local authority premises or at one of our ten specialist facilities, are CRB checked and our vehicles are always GPS tracked.

Sustainability – we manage data destruction and equipment recycling adhering strictly to the WEEE Directive so that we do not harm the environment and impact surrounding communities as little as possible. Our goal is always 0% to landfill. When it comes to Corporate Social Responsibility, re-sale profits can provide investment for community projects, too – all in all, a win-win situation for local authorities, the economy and the environment.

Stability – established in 1999, we are now part of the Restore Group, the second largest group of document management companies in the UK. We are trusted by clients such as the UK's major investment banks and the world's largest software company to carry out their IT asset disposal – wherever they are located in the world – securely, on time and to budget.

Accreditation – Restore-IT Efficient is regularly assessed and we are certified to ISO14001 (Environment) and ISO9001 (Quality) standards.

Return on investment – our specialist Smart Device and Mobile Phone Division uses processes that open up the options for re-sale. We are motivated to sell wiped and refurbished equipment for the highest return and can achieve up to 50% higher values than some other recycling companies. Online asset tracking and open book accounting gives transparency to the entire operation and our clients reap the benefits.

Your peace of mind

Our success comes from our 'long-view partnership' approach. We're proud that we build relationships with our clients and the wider community that are based on trust, respect and working together. We're also proud of our people and culture. It is by encouraging our teams to be competitive and entrepreneurial, yet environmentally and socially responsible, that we have grown our reputation as a dynamic, go-to business with a flexible approach, totally unfazed by the challenges our clients set us.

Please get in touch with Garry Keith, Government Business Development Manager, to discuss how we can meet your requirements.

RESTORE IT-EFFICIENT

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A changing climate

Minister for Climate and Environment in Norway, Tine Sundoft discusses some of the climate challenges making Norway and its polar regions vulnerable…

Norwegians are used to taking fairly extreme weather conditions into account in everyday life. We have learned to cope with a range of climatic variations over the centuries. Norway has a long coastline, wide mountain ranges and extends right up to the Arctic. This makes the country varied in its climatic conditions and exposed to extreme wind and weather.

Over the past 100 years, the Norwegian climate has become warmer and precipitation has increased by about 20%. These trends are expected to continue. We will have warmer winters with more rain and less snow. In the west of Norway, the amount of rain will increase more than the average for the country as a whole.

Some of the major challenges caused by climate change in Norway are storms and flooding. We already see increased flooding of rivers and urban areas due to increased precipitation and intense rainfall. Sea levels will rise, there will be more drought and forest fires and ecosystems will be affected. This will change the conditions for biodiversity and nature-based industries such as agriculture, forestry and fisheries.

Vulnerability in the Arctic region

Norway stretches all the way to the high Arctic in the Svalbard Archipelago. Here, temperatures are rising 2-3 times faster than the global mean. Rising temperatures and rapid retreat of sea-ice and snow cover threatens ecosystems and wildlife, in particular species dependent on sea-ice such as polar bears. Climate change also makes the Arctic more accessible for shipping and resource exploitation, exposing vulnerable areas and species to new risks and impacts.

Adapting to the new climate

A white paper on climate change adaptation was published in 2013. It states that each sector is respon-

Tine Sundtoft
Minister of Climate and Environment
Ministry of Climate and Environment – Norway

sible for climate change adaptation. All members of society must map their own climate vulnerability, plan to handle climate change and implement measures. The municipal sector has a wide range of responsibilities. This may, for instance, include prohibition to build houses in areas exposed to flooding, or stimulating replacement of hard surfaces with flower beds or lawns.

An important part of Norwegian climate adaptation policy is ensuring good planning. Infrastructure, urban areas, and new buildings must all be designed to sustain the future climate. This is settled in a legal framework, but needs to be supported by knowledge on climate change and how the changes can be addressed. Projections of future climatic conditions are essential.

Norway has established a center for climate services. The center will help to translate climate science data into practical climate adaptation measures and provide information to local authorities. The Centre will also be responsible for interpreting wider climate projections so that they will be relevant at the local level. Networks for sharing experiences and knowledge have been established, including a dedicated website for climate change adaptation that serves as an information base for local authorities.

Norway has several centers for climate research. Ocean and polar research are some of the main concerns. The High North Research Centre for Climate and the Environment in the Fram Centre in Tromsø, was established in 2010. In Fram, about 500 scientists from 20 institutions carry out interdisciplinary research in natural science, technology and social sciences.

At the Bjerknes Centre for Climate Research in Bergen, there is a large research program exploring the extension of the Gulf Stream through to the Nordic Seas, and its important and influential role in the climate system. The Polar Regions are under mounting pressure from the impacts of climate change, pollution, greater accessibility, and economic activity. To meet some of these challenges, Norway is establishing an Arctic Earth Observation System in and around Svalbard, which integrates and complements existing research and monitoring platforms for geophysical, biological and chemical studies.

Both scientific research on climate change and adaption to a changing climate are prioritized in Norway. But although adaptation is important to ensure a robust and sustainable future society, reducing greenhouse gas emissions is at the core of Norwegian climate policy. To avoid the potential devastating consequences of climate change, it is vital that we achieve an ambitious new global climate agreement in 2015. ■

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Arctic and Antarctic Knowledge

Polar scientific research, environmental monitoring and advice to Norwegian authorities on polar matters

A government agency under the auspices of the Ministry of Environment, the Norwegian Polar Institute (NPI) is Norway's main institution for research, environmental monitoring and topographic and geological mapping in Norwegian polar regions. The Institute also advises Norwegian authorities on matters concerning polar environmental management and runs research stations in the Arctic and Antarctica. It is the competent authority responsible for implementing and overseeing Norwegian Antarctic environmental legislation. NPI experts take part in work regarding environmental management and represent Norway in international processes, and are involved in the work of the IPCC.

One of the highlights of 2013 was the start of the process of acquiring a new research vessel. The Kronprins Haakon will cost 1.4bn NOK. The ship will be ready for Arctic and Antarctic waters in 2016. Before Lance, the institute's current vessel, is retired, she will be frozen into the sea ice north of the Svalbard archipelago. Here she will serve as a research platform during the polar night – part of the ICE Centre's "Norwegian Sea Ice Cruise 2015" research programme. What better way for Lance to wind up her service than as a platform for a special campaign that will enhance our knowledge of climate, snow, sea ice and the Arctic Ocean? Leading national and international scientists are invited to take part with their own projects.

The ICE Centre is closely coordinated with NPI's established research programmes. The Oceans & Cryosphere and the Geology & Geophysics Programmes contribute to a greater understanding of climate change by considering climate variability and feedbacks in the sea ice-land-ocean-atmosphere system, assessing the system's sensitivity to disturbances and analysing the consequences of a changing climate from a physical perspective. NPI polar climate monitoring programmes collect data in collaboration with international institutions. The Institute's climate research contributes to regional climate models.

NPI's Biodiversity Programme is designed to provide sound scientific advice to Norwegian and international agencies responsible for resource management and conservation practices. The group contributes scientific knowledge to the global knowledge base regarding polar ecosystems and their functioning. The Eco-toxicology Programme gathers knowledge to improve our understanding of the sources and biological effects of contaminants in the European Arctic.

The Norwegian Polar Institute publishes reports and handbooks. Its international peer-reviewed open access journal, Polar Research, presents articles concerning diverse fields of research in the polar regions. The library has a substantial collection of polar literature, including original diaries, and the picture library contains 90,000 contemporary and historical photographs of which 47,000 are publicly accessible via an online database.

Photo: Jon Aars, NPI

Scientists taking samples from a sedated polar bear

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iMuseums, uMuseums, wiiMuseums

Using technology to personalise and enhance the museum experience

As a youth, I was taught that museums are about the past. As I grew older, I saw newly minted museums dedicated to the same subjects. I came to realise that these institutions were really about the present because whatever 'past' was addressed could only be understood from the point of view of the present. Each and every object, word, and media piece was informed by a filter of the present.

There are visionaries who conceptualise the museums of the future, but these too, only manifest the cares and concerns of today. A clever curator in the 'real' future could look at any of these cultural institutions and identify its 'vintage', just as wine writer Jancis Robinson might peg the year of a Bordeaux's bottling (give or take a year).

In other words, we only have museums of now. And there are trends that are making them much more interesting, complex, and responsive to increasingly nuanced missions than the museums of yore. These trends are all interrelated:

Museums have evolved from collections-based to message-based institutions, but this evolution does not mean replacing one type with another. Instead there are layers of messages added to touchstones of material culture and historical events.

Museums and their constituents are becoming more self-aware and engaged in the creation of meaning in a museum, rather than simply consuming content. Museums are, however, not a wiki-democracy where every selfie-tweet has equal value; nor are they something that, like an internet website, is merely digital, infinitely replicable, and unverifiable. One of the problems of the 'wiki-museum' is that you can't tell what is important or accurate. Museums are the vehicle by which we define and acknowledge what we instinctively know is important.

Technology advances. Unlike the military or big business, the relatively small market size of museums means that technology packages available to museum developers are far behind the cutting edge. And, because of the development/implementation cycle of a museum installation, the technology deployed in a museum is far behind the consumer curve. It's likely that the average visitor has better and newer technology in his or her pocket or purse than is used in the museum. However, museums can create site-specific environments that immerse the visitor in dynamic environments that support dynamic interpretations about dynamic processes, recognise and track individuals and their interests through an experience, and allow visitors to see patterns across space and time.

These trends all converge in exciting possibilities for needed and relevant venues – the museums that tell me about myself, and tell me about you and about us – the iMuseum, the uMuseum, and the wiiMuseum. In the museum of now we can see and address historical trends and data in ways that were previously inaccessible. Rather than drowning in data, we can use technologies and techniques to focus our content delivery to build experiences that are unique and individually meaningful – particularly for topics where individual needs and vast datasets converge; such as Health, Cultural Identity, Economics, and Sustainability in all its forms.

National Civil Rights Museum, Memphis

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Developing a more Creative Europe

EU Commissioner Androulla Vassiliou and MEP Silvia Costa detail the new programme Creative Europe and how they hope it will impact challenges in the cultural sector...

Europe faces challenges which often cannot be effectively addressed by Member States acting alone. The cultural and creative sectors are a good example of what can be achieved by pooling our resources and working together to overcome transnational problems – and to seize opportunities to expand Europe's cultural footprint on a global scale.

The cultural and creative sectors (CCS) currently account for up to 4.5% of the EU's GDP and employ more than 8 million people. This is undoubtedly impressive, especially if their spill-over impact in other areas such as tourism and the IT sector is also taken into account. Nonetheless, we believe that the potential of the cultural and creative sectors for growth is not fully exploited and that, with the right support, their contribution to job creation and the EU economy could be even greater.

The CCS face three major challenges when it comes to making the most of the Single Market and the opportunities created by globalisation and the digital shift.

The first is that the European landscape is characterised by a multitude of cultures and linguistic areas that result in a fragmented cultural space which severely restricts opportunities for creative professionals to reach audiences beyond their home base.

The second is that globalisation and digitisation are dramatically altering the way that art is made, accessed and distributed. The way audiences interact with the arts and how cultural institutions engage their audiences is also in a state of flux.

The third challenge is the sectors' chronic shortage of access to finance. Due to a lack of in-depth knowledge, banks tend to view creative enterprises as 'risky' when it comes to loan applications. It is rare, for example, for a lending institution to have much experience in assessing the value of intangible assets such as intellectual property rights.

The European Union's response to these challenges and opportunities was to propose a comprehensive strategy for the cultural and creative sectors and a new programme – Creative Europe – which has just been endorsed by the European Parliament and Member States.

The new programme, which started in January, has a budget of €1.46bn[1] over the next 7 years – 9% more than current levels. It will provide support for the full range of professionals and organisations within the CCS: from culture to cinema, television, music, literature, performing arts, heritage and related areas. All stand to benefit.

In total, it will help to fund at least 250 000 artists and cultural professionals, 2 000 cinemas, 800 films and 4 500 book translations. It will also launch a new financial guarantee facility enabling small cultural and creative businesses to access up to €750m in bank loans.

The new programme also aims to encourage partnerships with non-EU countries. As under the previous Culture and MEDIA programmes, Iceland, Liechtenstein, Norway and the Swiss Federation, EU accession countries, candidate and potential candidate countries will be able to take part in Creative Europe, subject to certain conditions including paying an 'entry ticket'. And, for the first time, countries involved in the European neighbourhood policy can also participate as long as they meet entry conditions.

The long-standing flagship initiative European Capitals of Culture, the new initiative European Heritage Label, as well as European Heritage Days and the five European Union prizes (EU Prize for Cultural Heritage/ Europa Nostra Awards, EU Prize for Contemporary Architecture, EU Prize for Literature, European Border Breakers Awards, and EU Prix MEDIA) will also receive support under the new programme.

Creative Europe builds on the experience and success of the Culture and MEDIA programmes, which have supported the cultural and audiovisual sectors for more than 20 years. The new programme includes a Culture sub-programme, supporting performing and visual arts, heritage and other areas, and a MEDIA sub-programme, which will provide funding for the cinema and audiovisual sector. A new cross-sectoral strand will support policy cooperation, transversal measures and the new financial guarantee facility, which will be operational from 2016.

By helping artists to reach new audiences and cross-over national borders, Creative Europe will help to safeguard and promote European cultural and linguistic diversity. It also seeks to strengthen the competitiveness of the CCS so that they contribute fully to the Europe 2020's objective for smart, sustainable and inclusive growth.

This dual approach – protection of diversity and support for international success – underpins the whole programme: by seeking to help cultural and audiovisual professionals to develop their careers beyond their home country, by helping cultural organisations become more professional, and by bringing cultural works to new and larger audiences in other countries.

Audience development is a key focus for Creative Europe: this means extending access to the arts by attracting new audiences – for example the young and disadvantaged – but also in ensuring that existing audiences are encouraged to continue their support.

The reality is that today just a fraction of the EU's 500 million citizens are accessing cultural works from other European countries. This is a massive missed opportunity, as there are tremendous cultural, social and economic benefits waiting to be seized. Creative Europe seeks to address this challenge by ensuring that more people are able to appreciate the wealth of inspirational, creative and artistic treasures that Europe can offer, while at the same time making the most of culture as a means for fostering exchange and dialogue.

We believe that Creative Europe can make a real difference to millions of people, whether as beneficiaries or the many others, like us, who love the arts and believe that European culture is worth fighting for. ■

http://ec.europa.eu/culture/our-programmes-and-actions/capitals/european-capitals-of-culture_en.htm
http://ec.europa.eu/culture/our-programmes-and-actions/label/european-heritage-label_en.htm
http://ec.europa.eu/culture/our-programmes-and-actions/heritage-days/european-heritage-days_en.htm

[1] €1.46 billion taking account of estimated inflation. This is the equivalent of €1.3 billion in 'fixed' 2011 prices.

Androulla Vassiliou
European Commissioner for Education, Culture, Multilinguism and Youth
European Commission

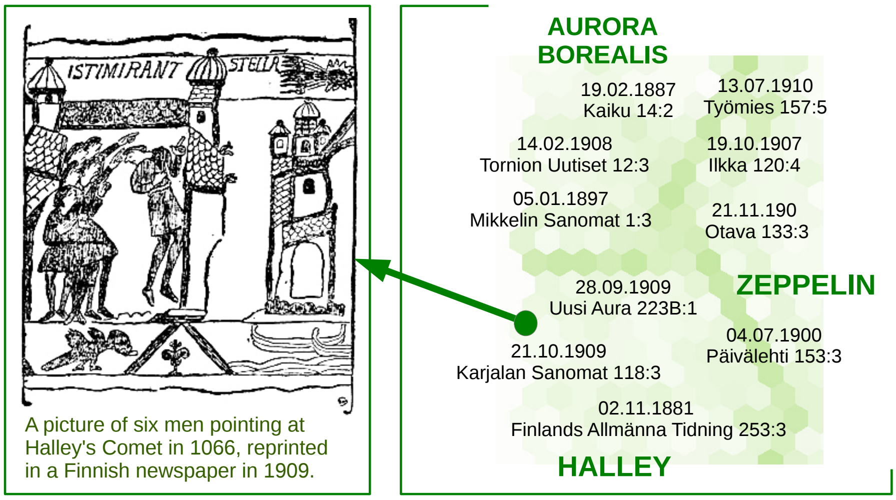
Silvia Costa
Committee Member on Culture and Education
European Parliament

Machine Learning for Understanding Cultural Heritage

Digitising information for the modern age…

The core tasks of The National Library of Finland (NLF) include permanent preservation, and promoting usage of the cultural heritage of Finland. Since 1707, one of the main duties has been to deposit and preserve everything published in Finland.

The Centre for Preservation and Digitisation was founded in 1990. The Centre's main focus within NLF is to select, scan and post-process cultural heritage material, in order to broaden the availability and use of the material both nationally and internationally.



An illustration of a news map concept where articles with similar content are close to each other

The goal of The Centre for Digitisation is to process various materials: newspapers, magazines, books, maps, ephemera and audio recordings. The Centre also provides services for external customers which include our parchment conservation and digitisation project. An example of this is the digitisation of the picture archive of The Finnish Defence Forces, http://sa-kuva.fi/neo?tem=webneoeng . The total number of digitised pages is over 8 million, increasing roughly a million per year. The Finnish historical newspaper library is available and searchable via our web service at: http://digi.kansalliskirjasto.fi/ , which was the first of its kind, when it was launched in 2001.

Towards a fully digitised newspaper process

Electronic depositing and receiving of newspapers is where partnerships with publishers are sought so that they can directly deposit digital printing plates (e-PDF) to the NLF. This eases and speeds up both publishers' work and streamlines the NLF long-term preservation goals through public-private partnerships. In the future, we could create new business models enabling crowdsourcing of articles and reusing stored collections. For example, machine translation and cross-lingual information retrieval could enable searching with one's native language from original articles in any language.

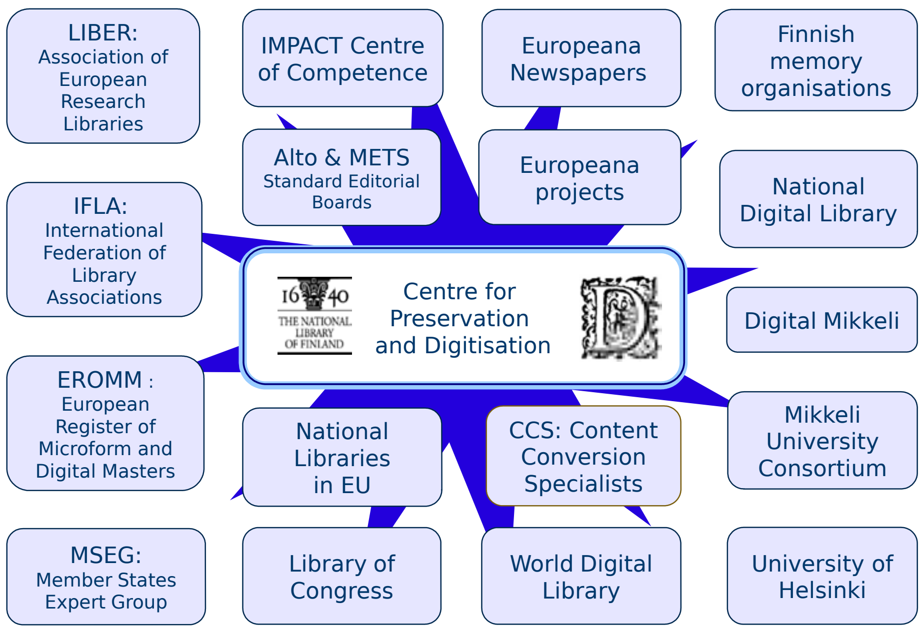
Crowdsourcing

Accessibility to articles is supported by crowdsourcing: anybody can annotate, select and share clippings from the copyright-free newspapers, magazines and industrial ephemera. People can create their own clipping collections to use for purposes like genealogy projects, hobbies, community information sharing or any other imaginable use. This project, Digitalkoot, follows an earlier gamification project of 2011, for fixing Optical Character Recognition (OCR) results of text. That project won the Digital Heritage Award of 2011 in its category. Different audiences are engaged via various formats and forms of media. Tablet and mobile applications are also developed in order to serve modern audiences, one example being Digitalkoot and the other historical travel guides presenting several regions in Finland.

Novel ways to utilise digitised material

In order to support the exploration of new ways to utilise digitised resources, the University of Helsinki appointed a

Our partners



professor in the area of digital humanities in the beginning of 2014. The professor leads a research group that applies methods of statistical machine learning to the analysis of linguistic and cultural phenomena. A central approach is to apply machine learning to automatic text correction and classification, translation between or within languages, and analysis of different human perspectives.

Partners – Cross-border librarianship

NLF and the Centre for Digitisation collaborate with several European and international bodies. We are participating in the Europeana Newspapers project, in which NLF has been one of the 17 countries to provide content. We are validating research tools and ground truth development in the 'Succeed' project for mass digitisation, within the EU IMPACT project. We have also been active in standardisation activities to create solid metadata formats (METS, ALTO). These standards lower the threshold of linking open data between different institutes and countries.

Recently the National Library of Sweden (KB) and NLF have co-operated by microfilming old Swedish-Finnish newspapers of emigrants and underground newspapers. We are negotiating to further digitise the material and to make it available over national borders provided that copyright issues are solved.

Future Actions

To support the EU goals of accessibility to information and to support the whole digital chain, we wish to promote two specific areas: building bridges over language and time borders, and increasing understanding of the effects of human movement to new contexts.

In the globalising world, human mobility increasingly influences language and the environmental culture in transforming the linguistic and cultural context of people. The important aspect of this phenomenon is the newspapers that are written by, and for, minorities and emigrants in the new countries. We are interested in emigration to America and within Europe due to economic circumstances or wars.

Statistical machine learning methods have made it possible to create machine translation systems between different languages, assuming availability of suitable digitised text collections. We are interested in promoting accessibility to minority cultures using machine translation of newspapers. This enables the analysis of different perspectives in various European countries. Moreover, translation within a single language is becoming possible. This means for example, that historical texts can be transformed into their modern counterparts to make them accessible to the audiences of today.

1640 THE NATIONAL LIBRARY OF FINLAND

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21st Century Latvian culture

Dace Melbarde, Minister for Culture in Latvia gives thought to cultural policies in the country and why the concept of national culture is important...

First of all, I have to explain that I believe in the concept of national culture and nation-state in the 21st Century. Among the theorists and researchers there are at least 3 positions with regards to the concepts of nation-state and national identity in the globalisation era:

- **Nationalists** see the contemporary world as a world of nations where each nation maintains its unique national identity and unity. A demonstrative testimony and recognition of it is an existence and operation of the United Nations Organisation. Nationalists of today consider that growing globalisation endangers the future and uniqueness of the contemporary nation-state, and all their efforts are directed towards safeguarding the nation as a singular cultural community united by shared homeland, history, national culture, economy, rights and responsibilities;

- **Cosmopolites** stand for the information society characterised by open information structures. The essence of their position lies in the belief of the universal humanism and diversity of cultures. Trust and understanding among people of different backgrounds, universal values and rights are the most essential; the global identity is the most fundamental among all others;

- **Post-modernists** criticise both of the above. They declare that identities of the humanity, cultures and individuals are diverse and multiple. The proper playground for such phenomenon of identities is an environment created by the new information and communication technologies. They believe that the future society becomes more and more individualistic.

Latvia's future as a nation-state

The birth of the Latvian state is based on the cultural nationalism. The Encyclopedia of Nationalism published by the Academia Press in 2001 describes the Latvian nationalism as a particular form of nationalism stating that the Latvian oral culture – numerous Latvian folk songs, fairytales and legends – has been and still is the most significant resource information of national self-confidence.

In this era we have seen the rapid demise of cultural diversity throughout the world. Certain cultural and globalisation researchers believe that the cultural homogenisation brought on by cultural globalisation is equal to the ecological crisis we are experiencing and these processes are, in fact, closely linked.

The most obvious evidence is the loss of languages (the situation with dialects and the vernacular is even more critical). From the approximately 6000 thousand languages that people on earth have spoken, at present only half remain, and of those, some are represented now by only 1 or 2 speakers. Even though culture and language are not identical, it is clear to everyone that the disappearance of any language is inextricably associated with the loss of a whole culture, if not an entire way of life.

The dedicated efforts of the international community over the last 5 years attest to the fact that this is not mere conjecture, because, under the auspices of UNESCO and the Council of Europe, numerous significant international legal instruments have been created to safeguard cultural diversity.

Even in Latvia, studies of the consumption of culture prove that Latvians prefer to be passive culture consumers rather than to actively participate in the creative process. As soon as culture as a creative life style is replaced by culture as a "market place", favorable conditions for the dissemination of commercial culture and entertainment grow, and the national cultural environment weakens.

The preservation and cultivation of a national culture

A national culture is necessary for the development of a cohesive society. The central mission of integration policy should be rallying the community around a common basis of shared values instead of the heated promotion of various ideas throughout the populace, according to the postulates of multiculturalism. In other words, if Latvia truly wants to arrive at an

Image: Miks Užāns

Dace Melbarde, Minister for Culture

integrated society, then the goal of both state cultural policy as well as integration policy, is to search for what is shared, rather than to merely highlight the differences.

Studies show that over the past 15 years, the ethnic make-up of Latvian society has become notably more complex. There has been a dynamic growth in the development and internal consolidation of various ethnic groups. The larger ethnic groups have started to pay attention to strengthening their own ethnicity. At the same time there has been a growth in the ethnic identity of the minority communities – there has been no corresponding growth in the national identity as a value. The values that unite Latvian society have not been specifically articulated enough, but their absence is a risk for the small nation to remain in the grip of the tension arising from contradictions inherent in ethnic differences.

The idea of a unified national culture is necessary for the individual. The merging of cultures and the creation of mixed identities are processes that many people are not ready for, thereby eliciting fear and insecurity. A national culture, together with education must be able to deliver a stable base – a set of cultural values – within this amalgam of changing identities, which, as a social and spiritual signpost can assist the individual with their own journey of self-discovery.

The preservation of the cultural space of small nations (cultures) is a global imperative. Latvia is the only country in the world that can take the responsibility for the preservation of the uniqueness of its own national culture; and in doing so; it contributes to the preservation of global diversity. We cannot ignore the fact that even though we refer to the certain nationalities living in Latvia as minorities, on a global scale, these ethnic groups are also a part of larger cultures. The small number of practitioners of Latvian culture places it closer to the category of cultures and languages under threat.

From a globalisation point of view, the identities of nations are subject to the increasing competition which has a significant influence not only on the development of a nation brand, but also on the development of the country's socio-economic prospects.

My belief is that a competitive identity for Latvia in the 21st Century is to be found in the uniqueness of its national culture, its excellence and in the creative potential and talents of its people.

A flagship project of the 21st Century Latvia is the new Latvian National Library. The newly constructed library building called "The Castle of Light" will be opened to readers on 29 August, 2014. One of the ambitions of the Latvian National Library is to become a centre of excellence in digitisation of culture both for Latvia and the wider region. Over the last decade there has already been enriching experiences in setting up the National Digital Library of Latvia "Letonica". The main long-term goal of the project is to digitise and make Latvian cultural heritage as widely accessible as possible, and to support this with IT infrastructure, common standards, and methodology.

Uniqueness of the Latvian culture stems from the intangible cultural heritage. The main challenge is our ability to build links between ancient wisdom, skills, and the contemporary cultural expressions to create sustainable usage and application of this heritage.

As for the creativity and talents, I strongly believe in the position that creative professionals and cultural specialists have to be recognised as a major asset of the cultural life and policy in Latvia. For quite a long time we have set cultural infrastructure as a main financial priority of the national cultural policy. There is no sustainable, diverse and vital national culture without its main creator – man. There is much to be done to define and protect the legal status of the creative professionals; we have to invest more in strengthening motivation of the cultural specialists, and we have to regain good prestige of the creative professions and professionals needed for the culture market.

At the same time there is yet one more precondition for the sustainability of the national culture which cannot be underestimated – an informed and motivated consumer of cultural and creative products.

In the context of increasing globalisation and global competition, our authorities should devote more efforts to strengthening the unique identities of national and local cultures and public awareness. At the same time, it is important that people are open to diversity, and they are curious about the history and culture of their neighbouring countries. The shared sense of belonging to the country and its diverse cultural environment, people's self-respect, self-confidence and taste can ensure a wide public demand of Latvian culture and creative industry products in the future.

Thus, in the upcoming years, cultural and arts education should be one of the top priorities in the national cultural policy. In this respect we have to improve quality of our professional arts education as well as to collaborate with the Ministry of Education to integrate cultural knowledge and skills into the formal education process. Media specialised in culture, both written and electronic, is also a subject of the cultural policy to develop a smart consumer of cultural and creative products which is ready to take shared responsibility on the future of Latvian culture. ■

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National Archives of Latvia

Accumulating and storing records of archival value

The National Archives of Latvia is an institution under the supervision of the Ministry of Culture who implement governmental policy in the field of records and archives' management. The National Archives of Latvia include: Latvian State Historical Archives, Latvian State Archives, Latvia State Archive of Audiovisual Documents, State Archive of Personal Files and 11 regional state archives. The National Archives of Latvia operate in accordance with Archives Law (which came into force on the 1st January 2011).

The National Archives of Latvia accumulate and store records of archival value, provide access to these records, and supervise the records management in the institutions and in the accredited private archives.

Use of on-site and virtual reading rooms is free of charge. The Archives Law restricts access to documents containing sensitive personal data. Access is restricted for 30 years after the death of the person to whom the document concerns. If the date of death is impossible to determine, access is restricted for 110 years after the birth of the person to whom the document concerns. If neither the date of the person's death or birth can be determined, then access is restricted for 75 years after the creation of the document. The general closure period of records related to foreign and internal affairs and state security will be applied for 30 years.

Book of debtors of Rîga from 1286 to 1352

For those undertaking genealogical research and the study of family history there are virtual reading rooms available on the website www.lvva-raduraksti.lv, with digital copies of Latvian churches' books, revisions and materials of the All-Russian population census of 1897.

Paid services include: documents' restoration and binding, ordering copies of archival records and ordering genealogical research, and receiving consultation on the records and archives' management, etc. The costs of these services are specified in the regulations of the Cabinet of Ministers.

The State duty shall be paid for preparation and issue of the socially legal statement of the National Archives. It is information regarding work, studies, service in armed forces and other structures, possession of properties, civil registration records, presence in the medical treatment institutions, bringing into Latvia and bringing out of Latvia of persons, court judgements and other issues which are requested by a private person for submission to the institutions in cases specified Law.

Information about the National Archives of Latvia and all news related to it is available at www.arhivi.gov.lv. In cooperation with the Society of Latvian archivists the National Archives of Latvia publishes the journal Latvian Archives, which is available in digital format here: www.latvijasarhivi.lv.

LATVIJAS NACIONĀLAIS ARHĪVS

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Enterprising Libraries – the heart of a community

Brian Ashley, Director of Libraries at Arts Council England explains why libraries are vital hubs for local communities...

At their best, libraries are trusted spaces, accessible to all and a place to explore reading, share information and deepen our knowledge of the world. Public funding for libraries has come under pressure but many libraries have adapted and innovated and remain an essential part of their local community.

The value that libraries add to the lives of people and communities is wide ranging, not least because they speak to people in different ways. The Arts Council's recent research programme Envisioning the library of the future highlighted the potential of libraries to be catalysts of local economic growth and enterprise that support improved social mobility in local areas.

As part of wider action to build on the role that libraries play as community hubs; Enterprising Libraries, a partnership between Arts Council England, the British Library and the Department for Communities and Local Government (DCLG), turns library spaces into incubators for business ideas by providing coaching, advice, meeting spaces, and IT support to people interested in developing a proposal and taking it to the market.

Enterprising Libraries builds on the successful model of the British Library's Business & IP Centre in London – which supports small businesses and entrepreneurs to protect their ideas and exploit new market opportunities through the provision of free access to up-to-the-minute business and intellectual property information and expertise. This is accompanied by a range of workshops, events and one-to-one advice delivered by information specialists and business experts.

The first stage of the Enterprising Libraries programme saw the partnership working with 6 core city libraries in Birmingham, Leeds, Manchester, Sheffield, Liverpool and Newcastle, to establish a co-branded network of Business & IP Centres to help support the Government's innovation-driven growth agenda. The projects focused on fostering entrepreneurship by supporting budding business minds in the local community interested in becoming self-employed. By developing these Centres, the resources will become more widely available throughout the country.

The second stage of the project is a grant based funding programme which will see 10 projects awarded £45,000 from September 2013 to March 2015. The aim is to develop partnerships between local libraries which have been successful in applying for this commissioned grant and core city libraries, spreading business and intellectual property expertise into wider communities. The successful projects will help libraries to make communities more integrated by improving social mobility, and helping people from diverse backgrounds to realise their potential.

Case study – Tees Valley

A case study highlighting the potential impact that these projects will create in their local communities is the development of Business Information Points in Middlesbrough and the five Tees Valley local authorities.

Business Information Points will be developed in each library, managed by an Enterprise Champion – an expert on the resources available within the library, the local landscape and support available externally, to provide the first port of call for people who are interested in starting a business.

Five library services will negotiate shared service options with database providers to enable libraries to provide business information resources to library users from multiple locations.

The Enterprising Libraries project will provide a vital service across the Tees Valley, and the library services will work with Teeside University to provide a full package of support to entrepreneurs. The Newcastle Business & IP Centre team will also provide support and will work with the project team to deliver IP workshops from library locations.

The 5 public library services in the Tees Valley; Darlington, Stockton, Middlesbrough, Hartlepool and Redcar, in partnership with Teesside University and Tees Valley Unlimited (LEP) will set up a network providing services and support to local businesses and start-ups.

A team of Enterprise Champions will supply information, advice and signposting in partnership with the Newcastle Business and IP Centre. Quality information will be provided locally by trained staff with identifiable access points in major libraries across the Tees Valley and the project proposes to develop a smartphone app.

The Tees Valley is a place of great contrasts with a diverse and wide ranging mix of people and communities. It has a very well developed cultural and artistic skills base and creative industries are well represented in the area. This project will offer people the opportunity to increase their skills and broaden their knowledge in order to play an active role in regenerating their local community.

This is just one example of the excellent work taking place as part of Enterprising Libraries.

Others are taking place across England; in Devon, Exeter Central Library which is due to reopen following a £4.5m refurbishment in summer 2014, will include an Information Hub, to replace the reference library. Another local library will develop a Hacker/Maker space for local creative businesses and aspiring entrepreneurs to utilise. This is being developed through bottom-up community engagement, the Parish Council and Development Trust. The space will be a creative co-op encouraging collaboration among people working in the creative industries.

In Hull, recently announced as the UK City of Culture for 2017, the Future Hull project, a public, private and voluntary sector partnership to address the issues of high unemployment, low business growth and development is targeting some of the most deprived communities in the city and building upon existing projects in Hull. The £45,000 Enterprising Libraries grant will be used to develop the role of the library services to support Future Hull. A team of enterprise coaches, based in specific community libraries in areas of deprivation and high unemployment will be trained to access the critical information resources that will aid the development of strong and successful businesses, to deliver engagement sessions and signpost customers to further sources of information. The project will work with the Business and Intellectual Property Centres in Leeds and Sheffield

Libraries are vital hubs for local communities and these kind of innovative and forward-thinking projects support local economic growth, provide wider access to information and create the right environment for success, the development of skills and the long term sustainability of communities, and the libraries at the heart of them. ■

Brian Ashley
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Going digital

Kelly Donahue, executive assistant at NEMO gives thought to the success of digitisation in museums and how technology is now part of our daily lives...

Since the early 1990s, museums have been experimenting in various degrees and with varying success with digitisation. Today, however, in 2014, museums face an historical turning point where technology and digitisation are no longer new, but rather, have become a part of our daily lives. The question museums and cultural organisations face now, is not how to react to the digital age, but rather, how to succeed in it – how to create exciting and educational experiences using the variety of new technologies available, technologies such as tablet devices, smart materials and mass digitisation, for a new and more technologically-proficient society.

Museums must continue to provide their core services as public educators, foster engagement between the public and its cultural heritage and safeguard cultural memory, but in new ways, ones appropriate to the changing world in which we live. In fact, most museums have already gone digital, even if only in a smaller way, and have started using contemporary tools, whether it be through partnering with cultural content aggregators like Europeana, creating interactive virtual online exhibitions, producing new mobile technologies for visitors or simply using social media, such as Facebook or Twitter.

Succeeding in the digital world should, and will, force museums to adapt their structure and capacities from long-term conservation and exhibition institutions to digital cultural content aggregators and service providers – services that range from interactive navigation to digitisation, smart applications, social media, lifelong learning and community engagement. This transformation and the adoption of these new services however, must be centred not around these new technologies, but rather, as has been the case with museums for the past century or two, around its audience, the visitors to its museum and the users of its remote digital services.

Understanding one's audience, or potential audience, involves not only knowing who they are, but also having thorough knowledge of their desires, learning styles and motivations. After having a concrete understanding of one's audience, a museum is in the best possible position to implement technologies that offer appropriate content in the most user-friendly way, whether these are apps, websites or digital platforms.

Going digital, by incorporating new technologies into a museum's daily functioning is no longer confined to an IT or marketing department, it is a decision which forces a museum to re-consider its aims and often to re-design its strategy to reflect the modern needs and expectations of its audience. This often forces museums to re-examine and make changes at various levels, including its policies and business model, collections, facilities, services, staff, branding and marketing, among others. Furthermore, while making sure new digital services meet the needs of the audience, museums must also stay true to the original vision and mission of the museum.

When deciding to embark on a digital project, whether it be digitising museum objects, adding metadata through context and links, making objects accessible to the audience through national and international cultural content aggregation services like Europeana, or simply providing digital access to collections on a museum website, there are several challenges museums face. Issues such as museum infrastructure, finances, staff, sustainability and various legal questions have made the reality of providing digital access to cultural heritage much more challenging than originally anticipated. Alongside challenges over copyright issues – most often regarding orphan works (it is estimated that more than 50% of content owned by

museums is considered orphan works, depending upon definition used) – privacy, e-commerce and intellectual property legislation, on both the national and EU levels, are unable to keep up with the fast-paced technological developments museums are embracing, thus making access that much harder.

Museums and cultural organisations have a huge responsibility to the public to provide access to cultural heritage, one that belongs to us all. Digitisation, the internet, new mobile projects and other technologies allow museums to provide this very access in a more feasible and universal way. While there are hurdles, substantial challenges and lots of room for improvement, going digital can offer museums crucial advantages in its efforts to educate its public and to provide open access to society's shared cultural heritage. ■

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The real threat to archaeology

Dr Chris Cumberpatch, Vice-chair of RESCUE warns that economic cut-backs risk a return to the bad old days of development without archaeological mitigation...

In July 2013 a report on local government staff resources allocated to archaeology and building conservation was issued jointly by English Heritage, the Association of Local Government Archaeological Officers (ALGAO), and the Institute of Historic Building Conservation[1]. The report outlined unequivocally the significant decline in the availability of the specialist advice that local authorities require if they are to deal properly and responsibly with our archaeological and built heritage. The downward trend in the provision of services began in 2006 and has seen the numbers of archaeological advisors, including Historic Environment Records (HER) officers, fall by 28% while the decline in the numbers of Conservation officers has been marked even more at 33%. In the past 12 months the number of archaeological specialists has fallen by 3% and conservation officers by 4%. There is no sign of this ceasing and with further cuts to local authority budgets planned for the financial year 2013-2014, the situation will continue to worsen.

A crisis in the planning system

The report shows the ongoing drop in the capacity of local councils to deal adequately with archaeological and historic sites within our towns, cities and countryside. The findings from the report confirm the anecdotal information collected by RESCUE over the same period, which indicates that heritage services are amongst the first to be targeted by local authorities when cuts are required to meet central government spending targets. Specific examples include the closure of the Merseyside HER and the withdrawal of advice to five local authorities (Knowsley, Liverpool, Sefton, St Helens & The Wirral) in a region that includes the Liverpool Waterfront World Heritage Site. Other areas affected by severe cuts include Portsmouth and the West Midlands where Sandwell and Dudley no longer have HERs, Walsall has no archaeological officer and the archaeology and historic buildings of Birmingham are now the responsibility of one individual. Such actions are directly contrary to the government's National Planning Policy Framework (NPPF)[2] which states:

'Local planning authorities should have up-to-date evidence about the historic environment in their area and use it to assess the significance of heritage assets and the contribution to their environment. **...Local planning authorities should either maintain or have access to a historic environment record (NPPF paragraph 169).'**

Government and the value of culture

In a speech delivered at the British Museum on 24th April 2013[3], the Secretary of State for Culture, Media and Sport, Maria Miller, drew attention to the immense value of culture (including heritage) to the economy. RESCUE questions the logic of emphasising the economic importance of our heritage while at the same time allowing spending to fall to the extent that the historic environment is no longer effectively protected[4]. The loss of local authority staff posts, a direct result of the government's imposition of unrealistic spending limits on local authorities, indicates a catastrophic gap between rhetoric and reality.

Why does it matter?

An effective, professionally staffed HER and advice service is critical to ensuring that threats to archaeological sites posed by development are recognised, that appropriate mitigation schemes are put in place, and subsequent fieldwork is of a high standard to allow accurate and worthwhile interpretation of the results. Without the capacity to undertake these functions developers are at risk of being under-prepared for encountering archaeological material during construction works, and important new archaeological sites, such as the spectacular Anglo-Saxon princely burial at Prittlewell (http://www.museumoflondonarchaeology.org.uk/Services/PCaseStudies/UK-projects/Prittlewell-Prince/) and the large Iron Age and Roman site recently discovered in Peterborough (http://www.bbc.co.uk/news/uk-england-cambridgeshire-16512512) will be damaged or lost as a result.

The government has responsibilities under international agreements (notably the Valetta Convention[5]) to ensure that heritage is protected. By failing to ensure the existence of a robust system of planning and development control they not only abrogating their responsibilities to international commitments, but also risking the loss of unique heritage assets resulting in cultural and economic impoverishment.

Facing up to the crisis

In order to halt this decline, a cross-party commitment to the following reforms of heritage protection is required:

- To make the provision of conservation and archaeological advisory services charged with the safeguarding of the historic and built environment a statutory obligation on all local authorities;
- To make the provision of a fully resourced HER a statutory obligation on all local authorities;
- To make access to a HER free for all citizens, community groups, research students, academics and others with a legitimate interest in the historic environment.

It is essential that local and regional museums are adequately resourced in order to be able to undertake the care and conservation of the written records, artefacts and other material that are the result of all archaeological fieldwork.

A future for our past?

RESCUE believes that Britain is close to the point at which the provision of services designed to safeguard our historic environment is no longer adequate to meet the challenges that present themselves on a day-to-day basis.

In spite of the publication of reports by heritage organisations and expressions of concern when a specific archaeological site or historic building is lost, the catalogue of losses continues to expand. At what stage will we decide to act collectively to support under-resourced and vulnerable services and thus ensure that our historic sites and landscapes receive the protection that they require through the planning process?

Will we rise to meet this challenge as we did in the early 1970s or will future generations look back on the early 21st century as the time when we abandoned our past to short-termism and financial expediency? ■

[1] A summary of the content and a link to the full report can be found here: http://ihbconline.co.uk/newsachive/?p=6410

[2] National Planning Policy Framework: https://www.gov.uk/government/-uploads/system/uploads/attachment_data/file/6077/2116950.pdf

[3] Testing Times: Fighting culture's corner in an age of austerity https://www.gov.uk/government/speeches/testing-times-fighting-cultures-corner-in-an-age-of-austerity

[4] Testing Times: Fighting culture's corner in an age of austerity A response by RESCUE – The British Archaeological Trust http://rescue-archaeology.org.uk/2013/04/26/testing-times/

[5] Details of the terms of the Valetta Convention can be found here: http://conventions.coe.int/Treaty/en/Treaties/Html/143.htm . RESCUE contends that Britain is in breach of Articles 2 (i), 4 (iii) and 5 (i, ii and iii) of the Convention as a direct result of government policy.

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Spotlight on...

Hull

Announced as the UK's City of Culture 2017 in November 2013, Hull has worked hard to reinvent itself in recent years. Standards are being driven up with a number of regeneration developments including the museum quarter and the fruit market area. The City Council is committed to making Hull the destination for culture, attracting visitors and increasing employment through the new developments. Representatives from the region tell Adjacent Local Government about the strategy behind the city's impressive rich cultural heritage...

Despite tough competition from 3 great cities, Hull was revealed as the UK's City of Culture 2017 on 20 November 2013. The announcement followed numerous developments and step-changes across the city over recent years plus almost a year of hard work from local people and organisations in putting together a powerful bid.

Cultural regeneration is the cornerstone of Hull's new 10-year City Plan to rejuvenate Hull as a visitor destination and centre for creative industries. Our bid, and being the UK's City of Culture, are key milestones in this journey and helped demonstrate to the judges the importance of culture in our strategy to create jobs and prosperity in the city. As the bidding process was conducted as part of a long-term £190m cultural capital plan, the Council's commitment to ensuring that the title will deliver a lasting legacy for the city was also clearly illustrated.

Already a city with a rich cultural heritage, Hull was further able to prove its readiness to deliver a national year of programming thanks to recent increases in cultural capacity. Significant cultural arenas have opened of late including Hull Truck Theatre, Albemarle Music Centre, Hull History Centre, Fruit Market and numerous independent cultural businesses. Further cultural developments – due for completion by 2017 – are also in the pipeline including a new dance space; a major refurbishment of the University of Hull's library and exhibition space; a refurbishment of Ferens Art Gallery plus private-sector plans for a new outdoor amphitheatre.

Bidding galvanised the city and showed how much we wanted to win. Developed from the ground up, our bid was created with input from a wide range of stakeholders from Hull's cultural sector, community organisations and businesses plus over 250 members of the public. Private sector support for Hull's bid was clear with the successful 2017 Angels sponsorship initiative securing funding pledges totalling £340,000 before the winner was even announced.

Public support for the bid was tremendous and a key contributor to Hull winning the title. Enhanced thanks to a sophisticated multi-media campaign, over 23,500 people now follow Hull UK City of Culture via Twitter and Facebook and significant national and local media profile has been achieved for Hull since the bidding process began in April last year. Worth millions of pounds, this coverage has already started the process of significantly repositioning Hull's reputation.

Hull 2017 will deliver a spectacular programme with artistic excellence and events on a scale never seen before in the city that will entice people from around the UK and beyond. Inspired by Larkin's poem 'Days' the ambition is for each day of Hull 2017 to make a difference to a life in the city, the UK and the world. The proposed programme will include 15 national and international commissions, 12 artists' residencies; 25 festivals; 8 major community participation projects; a programme of conferences and major broadcasting events; plus programming activity across 365 days with an estimated 1,500 special events.

The title presents a significant catalyst for change and is one we endeavour to capitalise on fully. It is estimated that being the UK City of Culture will deliver a £60m boost to the local economy in 2017 alone. The title is also anticipated to leave a lasting legacy creating a more vibrant, sustainable cultural sector; improve quality of life and opportunities for local people; increase access to tourism and cultural sector jobs; enhance opportunities to participate in culture; and generate opportunities to gain experience as a volunteer. It will accelerate the pace of the journey to make Hull a top place to visit in the UK and will certainly increase the scale of our ambition.

For further details on Hull's UK City of Culture programme and how to get involved people can visit www.hullcc.gov.uk/2017Hull , follow via Twitter @2017Hull or like the Hull City of Culture Facebook page.

Councillor Stephen Brady
Leader of the Council
Hull City Council
www.hullcc.gov.uk

The Museums Quarter in Hull with its 9 free museums and galleries is a great example of Hull's rich cultural heritage. Free to enter, they offer nationally designated collections numbering millions of items and a range of quality experiences for all types of visitor.

Significant capital investment has delivered facilities that offer a cultural and learning experience which attracts thousands of visitors each year. Recent revenue investment has provided record levels of formal educational engagement through nationally recognised programs and ongoing development work to deliver social regeneration in the city.

Located in Hull's city centre and its charming and historic Old Town, the museums are dotted alongside merchant dwellings, cobbled streets and traditional pubs. A well-established and popular visitor attraction, the Museums Quarter was recently voted by Guardian readers as one of the top 10 free national attractions.

The museums service animates Hull's fascinating past covering 235 million years of history and creates a focus for a unique type of civic pride and ownership. The Maritime Museum for example houses the best whaling collection in the world outside America and acts as a reminder of when Hull was the biggest whaling port in the UK. Unusual experiences abound in the quarter: visitors can climb aboard Hull's last sidewinder trawler, the Arctic Corsair for example, and experience Hull's history in a uniquely interactive way.

Hull's important maritime history will be reflected in our City of Culture 2017 year with plans for a magnificent opening ceremony that will involve 4 rivers of light flowing into the city; as well as elephants walking the streets of Hull alongside lost trawler men, dancing white phone boxes, and images of Hull's rich past and creative future.

The theme of 'Freedom' is synonymous with the city and will also be reflected in the Hull 2017 programme. Hull MP William Wilberforce pioneered the abolition of the slave trade in the British Empire and his birthplace is now a museum telling the story of the trans-Atlantic slave trade.

Prior to our City of Culture win, the award-winning Ferens Art Gallery helped demonstrate the scale of Hull's cultural ambition by saving a c1320 Lorenzetti's masterpiece from export. A move The Guardian praised as 'enlightened'. Currently being conserved by the National Gallery, the painting is expected to arrive in the summer. The acquisition is the latest in a long line of successes for the gallery which combines internationally renowned permanent collections with a thriving programme of temporary exhibitions. Recent touring exhibitions such as Leonardo da Vinci, Andy Warhol and David Hockney have broken records with visitor numbers.

The Museums Quarter is also home to another successful, and new, attraction: The Scale Lane Bridge. Described by The Observer as "not just a bridge, it's an event", it's the only bridge in the UK that can swing open while people are on it. The Civic Trust Awards 2014 has recently selected the bridge as a national winner and the bridge also won a World Architecture News Transport Award earlier this year.

Being the UK's City of Culture 2017 presents fantastic opportunities for Hull, not least its existing attractions. We're in discussions with national and international partners to explore working together as part of the Hull 2017 celebrations to maximise the potential this affords – and bring even more visitors to enjoy Hull's outstanding Museums Quarter.

Simon Green
Assistant Head of Service, Sports, Leisure and Heritage
Hull City Council

These are exciting times for Hull. Our location at the heart of the UK's energy estuary and the recent UK City of Culture 2017 title win means we have a once-in-a-generation opportunity to transform the city and the lives of our citizens. We are ready to seize that opportunity.

A key part of the cultural regeneration strand of Hull's City Plan includes the development of Hull's unique Fruit Market area. In this historic district, next to Hull's stunning waterfront and marina, artists and musicians have come together to create an edgy, creative community on the site of a former fruit market.

Disused warehouses are being transformed into independent creative businesses including a micro-brewery, recording studio, live performance space, jewellery workshop, galleries and even a Museum of Club Culture. The area has become a cultural lifestyle quarter known for festivals, markets, arts and opportunity. Last year a derelict building in Wellington Street was brought back to life through a heritage project to restore a traditional smoke house. At weekends, visitors to the Fruit Market can expect a hive of activity – from boutique markets to live music, art exhibitions and much more. This bohemian quarter of Hull delivers a truly unique city centre offer.

The regeneration aim for the future of this characteristic area is to build upon the grassroots growth to create a distinctive mixed-use area. Working with a lead developer, our plan is to deliver a complete regeneration of the area with sympathetic refurbishment to stimulate the opening of even more independent restaurant and eateries, crafts and galleries – thereby creating a central hub for those activities. The goal is to create a characterful and stylish new residential community, a working environment for small businesses and a special visitor destination.

The regenerated Fruit Market will retain its unique character while providing a renewed vibrant community: a new place to live and work complemented by café bars, additional galleries, speciality arts and crafts studios, shops and restaurants, as well as new public spaces. The area has a number of Georgian houses with the potential for reinstatement of ground floor

house fronts, for adaption to housing, commercial use, retail or food and beverages. Restoration will also recapture and retain for the future the integrity of the Georgian building stock.

The Fruit Market plans for cultural regeneration are at the heart of the city's renaissance and the development. Our vision is to create a vibrant cultural and residential quarter that will bring more people to our stunning waterfront. With plans for a cruise terminal and international arts centre and our recent success in reaching the shortlist for UK City of Culture 2017, our ambition for Hull and for the Fruit Market is clear.

Garry Taylor
Assistant Head of Service, Housing Strategy & Renewal
Hull City Council

All schools in Hull warmly welcome the City's successful bid to be UK City of Culture 2017. Schools are 100% committed to playing their part in making 2017 the best year yet and to developing a rich, citywide programme of activities, events and opportunities in the coming three years for all the young people of Hull.

The young people of our City already take part in a rich variety of cultural opportunities and make their mark on the national stage. National award winners include the Hull Youth Jazz Orchestra; the Bude Park Primary School artists. Many young people in the City enjoy the rich offer of music, performance and dance already available through Rock Challenge, work with the Royal Shakespeare Company and Hull Truck, playing with the Hallé Orchestra at the City Hall and much, much more.

The City of Culture offers us the chance to build on, expand and deepen all these experiences so all young people can be involved and contribute regardless of where they live.

We want young people to be involved in shaping the opportunities and have the change to bring their creativity to something big, something of national and international significance, something that will have lasting impact for them and their City.

We have wonderful venues in the City enhanced by the Albermarle Centre and exciting new spaces in our Building Schools for the Future Schools. The City of Culture and events leading up to 2017 provide the opportunity to maximise their use.

Culture matters. It has a central place in shaping our identity as a City and how we are regarded by others. Our arts, culture and creative industries are vital to our future prosperity as a city. The arts remain a core component of our young people's education.

The City of Culture will add capacity and impetus to this; exciting opportunities to explore the City as a resource for learning and widening horizons. Confidence in education in Hull is on the up. Our results are improving year on year. City of Culture will help us harness the energies and pride of the people of Hull and external partners to quicken the pace of improvement, and extend the confidence and inspiration of our young people by connecting them with the best of arts and culture in the country.

Vanessa Harvey-Samuel
City Learning & Skills Manager
Hull City Council

Better Care – better lives

Ivan Ellul, Director of Partnerships at NHS England explains how the Better Care Fund is helping to improve lives and provide support for the most vulnerable...

In June 2013 the government announced that £3.8bn worth of funding would be pooled by local health and social care services from 2015/16 to ensure closer integration. This money, known as the Better Care Fund, provides an opportunity to improve the lives of some of the most vulnerable people in our society. We must give them control, placing them at the centre of their own care and support, and, in doing so, provide them with a better service and better quality of life.

Why is this such a priority? People today are living longer, healthier lives than ever before. This is an extraordinary achievement and a testament to the many who have dedicated their lives to improving people's health and wellbeing. But progress brings challenges. People may be living for longer, but often they are living with several complex conditions that need constant care and attention, conditions like diabetes, asthma or heart disease.

Our system of health and care is under more pressure than ever before. We need major changes to respond to the range of challenges we face and to make sure that we provide the best value for taxpayers at a time when the public finances are under extreme pressure. Unless we seize this opportunity to do something radically different, then services will get worse, costs to taxpayers will rise, and those who suffer the most will be people who could otherwise lead more independent lives.

That means building a system of integrated care for every person in England. It means care and support built around the needs of the individual, their carers and family that gets the most out of every penny we spend.

Integrated care and support isn't an end in itself. It is the means to the end of achieving high quality, compassionate care for all, now and for future generations.

Lots of local health and social care services are already embracing the positive changes that more integrated care can deliver for people. A number of local integration pioneers were announced in November. They will help to get the ball rolling, learning fast and actively sharing every lesson learned.

For example, the NHS Southend Clinical Commissioning Group (CCG), Southend-on-Sea Borough Council, Southend University Hospital NHS Foundation Trust and South Essex Partnership University NHS Foundation Trust (SEPT), joined together to bid for Integration Pioneer status. The Southend programme focuses on improving health and care for older people, and those with long-term conditions in the community. It builds on a history of collaborative and innovative work in Southend, including a Year of Care pilot, CareTrak (a joint health and social care information system) and as part of the whole Essex community budget. The emphasis will be on personalised care that keeps people independent and in their own homes for as long as possible. The Better Care Fund will provide an opportunity to drive forward Southend's pioneer aims towards a whole-system model where: "no silo is protected, no budget ring-fenced and no structure out of scope."

In Staffordshire and Stoke-on-Trent, integrated care is being seen as the solution to better care for older people in the community – and the Better Care Fund could provide an additional push to being able to deliver these better services. Primary care is at the

heart of this pioneer's work – building on the redesign of dementia and frail elderly services, which are not only better for the patients, but also better for the public purse – as more people will avoid going to hospital unnecessarily. The community, social care and mental health providers are all working together, creating a joint workforce that can provide an integrated service in Staffordshire and Stoke-on-Trent.

These are 2 examples of some of the great work going on around the country addressing the challenges of providing better-coordinated, efficient health and care for our communities. But it is not enough for there to be isolated pockets of excellence. We are determined that, over the next 5 years, this will become the standard model for everyone with health and care needs.

We expect the Better Care Fund to bolster these efforts through becoming the new "minimum" for integration between health and care. Beyond this, the sky's the limit! We hope that the Fund can help spur local conversations around understanding the needs and priorities of the whole community – and developing a common vision, outcomes and objectives that matter to people, and how to deliver these together, sharing the rewards as well as the risks. The new Health and Wellbeing Boards provide the ideal forum to reach these agreements and the Better Care Fund will give these Boards real teeth.

We know that better integration can help drive positive change. The Better Care Fund is a significant catalyst for change: an important opportunity to push the integration agenda forward at scale and pace – a goal that both sectors have been discussing for several years.

But we also know that achieving it won't be easy. The Fund isn't 'new' money. Much of it will need to be re-deployed from existing NHS services, and this will need to be done carefully, minimising the risks to existing services. That's why we are supporting CCGs and councils begin their detailed planning now, well over a year before the fund is introduced.

In the end, of course, this is not about systems and plans, it's about people. It's about inspiring local leaders, dedicated and energetic staff and individuals who deserve the most integrated, personalised and empowering care and support we can offer. ■

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Assisting the community

Alison Grange from Worcestershire County Council sheds light on the benefits of assistive technology and how it allows for more independent living...

Assistive technology is equipment that can help people stay safe and living at home, and Worcestershire County Council is planning to increase its use so more people can remain independent. As part of its Future Lives programme, the council is planning to extend its current use of assistive technology.

The benefits of assistive technology are that it allows service users and carers to feel more confident to live independent lives and gives them a greater range of choice. It can especially help people if they have had a period of ill health or a fall, who may feel unable to cope at home especially if they live alone.

Assistive technology equipment available can do a wide range of things such as:

- Help detect falls or inactivity. Sensors, which are placed in the home or on your person are triggered, and an alert is received either by trained operators at a 24-hour call centre, or directly by a relative or carer. Operators will talk to clients using a 2 way speech function and will stay on the line until help arrives;

- Support people with dementia, and other conditions with devices such as calendar clocks, automatic lighting and sensors. There are also devices that can help people with memory difficulties such as a light that automatically switches on when a person enters a room, a bath plug that releases water if the bath becomes over-full or a sensor that alerts a carer if someone exits a room in the middle of the night;

- Act as reminders for people to carry out essential tasks – for example an automatic pill dispenser will remind someone to take their medication; or a memominder, can be used to remind an individual of appointments;

- Devices to ensure people with dementia can still go out and about but people know where they are. These devices can be carried and tracked or located via a website, providing reassurance to family and carers and maximises independence as well as minimising risk for the individual;

- Reminders to have meals, as well as a range of gadgets that can make it easier to cook at home such as plates with better grips, and devices to help people open jars and tins.

In Worcestershire, a service user diagnosed with dementia wished to remain at home while being cared for by her husband of more than 50 years. She had wandered away from the property causing extreme anxiety for her husband. She enjoys her home as well as her garden, but there was additional risk in her leaving the garden by a side gate if left on her own.

The Council used assistive technology to fit door contact sets and transmitters to both front and back doors, and her husband was provided with a 4 channel pager to identify which door had been opened. These door contact sets were inappropriate for outdoor use, so a break-beam detector set was paired with constructed battery boxes and charger so that the husband could charge and replace battery power to the gate break-beam detector, which in turn indicated on a third channel on the pager.

Councillor Sheila Blagg, Worcestershire County Council's Cabinet Member for Adult Social Care, said:

"This case study shows how assistive technology is already working really well in Worcestershire, especially for people with dementia and memory loss, and we are working to extend its use throughout the county.

"In this case the technology not only allowed the carer peace of mind but also meant the service user was safe and able to remain in her own home for much longer.

"We know service users want to remain as independent as possible and simple technology such as this, that tells them when to get out of bed or alerts them to the fact they have left the gas on, means people can remain safe in their own homes for far longer, which is part of want we want to achieve for our residents," explains Councillor Blagg.

"As part of our Future Lives programme, we are also exploring other ways for people to more easily access services such as an interactive website which will make it easier for people to find out what is on offer to them and the people they care for.

"To qualify for any adult social care services, including assistive technology, people must first meet the eligibility framework set out in the Fair Access to Care Services (FACS) Policy Guidance (Department of Health) 2002.

"We will also soon be going out to tender for a far bigger package of assistive technology so we can offer service users much more choice and this will also enable us to make some of the large budget savings we need to because of reduced government funding and the impact of the Care Bill currently going through Parliament which will mean more people will be eligible for adult social care services," she added. ■

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Dementia Alarms

Curtain infra-red detector

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It is considered that 20% of our population may suffer from dementia during their life time, mainly in people of advancing years with a noticeable decrease in cognitive retention, to the point that it affects their daily living.

Firstly we need to recognise that a person has a problem? We need to establish a baseline as early on as is possible. Who is best able to establish that baseline? It could be a combination of professionals; Doctors, Carers and Occupational Therapists, with input from close relatives, and in the early stages the client as well.

Only after an assessment has been made might it be appropriate for other agencies to assist to enable the client to maintain their independence with what ever normalisation can be afforded, this is only 'trumped' by the clients safety.

We at Ridley Electronics Limited have produced a range of products to assist carers to maintain normalisation within a client's home. What do I mean by normalisation? Trying to keep the client in their 'home' environment, with as much familiarisation for the client as is possible.

If we look at low grade dementia where a client is being cared for in their own home of many years, with care provided on a 'one to one' basis, we must consider that whoever is providing that care cannot be working 'on duty' 24 hours a day, however with a little bit of technology life can be made very much easier.

A risk assessment can be carried out, looking at the safety aspects of the clients home; this will vary as to the property location, the style of house, and the care provider.

In many cases the main requirement for assistance is at night, when both client and carer may require some sleep! So if we assume that the clients' bedroom is a 'safe zone'? Is the client safe at night to make their way to the bathroom? Are there stairs that might present a hazard, or steps?

Ridley Electronics Limited have many facilities to detect if a client is in distress, is about to get out of bed or having an epileptic fit, and when appropriate summon assistance.

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Effective, accessible mental health care

Adjacent Local Government examines how mental health is being brought to the forefront of government policy and priorities...

Hundreds of people struggle with mental health problems on a daily basis, with 1 in 4 people in the UK experiencing a mental health problem each year. In recent years, day to day worries such as money and work have had a significant impact on how people cope.

As public health responsibilities now lie at the door of local authorities, local people look to them for support and advice.

In January this year, NICE published information regarding support for local authorities on improving access to health and social care services. The information on improving service access covers a range of areas important in ensuring that services meet the complex needs of people in their local area.

NICE reported the cost of treating illness and disease arising from health inequalities is estimated at £5.5bn per year in England, with productivity losses costing between £31-33bn each year. [1] Having greater access to health and social care services could help address issues before they become more serious.

The government recently addressed their commitment to supporting the need to help deliver more effective mental health care specifically in the UK. Access to the best support is integral and as part of the government's drive to do more, they aim to make better access and shorter waiting times a priority for NHS England.

As part of their commitment to delivering effective mental health services, the government aims to make mental health part of the new national measure of wellbeing. They will also be providing £400m between 2011 and 2015 to give people of all ages access to psychological therapies.

Dr Geraldine Strathdee, NHS England's National Clinical Director for Mental Health spoke in October last year about the role local authorities should play in supporting people with mental illnesses.

"We want local community leaders and commissioners to act on the knowledge that over half of all mental ill health starts before the age of fourteen, so it's important to intervene early.

"We want to stop the unnecessary and shaming premature mortality of those with mental illness. We want to stop the scandal of lack of access to the very effective, and cost effective, treatments we now have in mental health." [2]

In January, the Deputy Prime Minister blasted NHS mental health services by saying we treat the illness as the "poor cousin" of physical health in the NHS. Nick Clegg was speaking at a conference ahead of revealing the government's mental health strategy and said "too much prejudice, too much discrimination", still remains around the issue.

Effective support for people with mental health problems is crucial to help them cope and overcome any stigma that might be attached. The efforts that the government, NHS England and charities can only work towards reducing the stigma or removing it all together. ■

[1] http://www.nice.org.uk/newsroom/pressreleases/ImprovingServiceAccessLGB.jsp

[2] http://www.england.nhs.uk/2013/10/10/geraldine-strathdee/

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Providing counselling for former armed forces, reservists & families

PTSD Resolution helps Veterans, TA and Reservists who are struggling to reintegrate into a normal work and family life because of military trauma suffered during service in the armed forces.

Trauma causes flashbacks, nightmares, anger and depression – often leading to violence, alcohol and substance abuse, job loss, family breakdown and even suicide.

OUR MISSION
Our Mission is to ensure effective therapy for military PTSD (Post Traumatic Stress Disorder), post traumatic symptoms, and secondary traumatic stress.

Better access and availability of treatment for all veterans of the UK armed services, TA, reservists and their dependents.

The PTSD Resolution programme involves a series of one-hour therapy sessions on a one-to-one, out-patient basis, to relieve veterans of disabling symptoms. A single course of treatment is usually all that's required, delivered through a national network of 200 therapists, trained in Trauma Focused CBT – as approved by the National Institute for Health and Clinical Excellence.

PTSD Resolution treatment meets the special needs of veterans and reservists. It is effective without the therapist or anyone else ever knowing about the events that caused the trauma. This ensures confidentiality.

It protects the patient from further distress, and therapists from hearing about often extremely disturbing incidents. These are important safeguards.

We are also involved in new research and raising awareness of the causes and treatment of post traumatic stress. PTSD is little understood by veterans and reservists – or their families, friends or employers, the people who are often very much affected by the destructive behaviour associated with the condition.

Maximising transparency – saving lives

Tim Kelsey, NHS England's National Director for Patients and Information, explains why transparency is the key to sustainable high quality services...

Sir Bruce Keogh is a hero of our time. He chose to be a heart surgeon when, in his words, heart surgery 'was regarded as hugely controversial, immoral, against nature'; now, of course, it is mainstream.

A decade ago, he chose to challenge a different orthodoxy and became champion of transparency – campaigning for the publication of comparative data on surgical outcomes. In the years since British heart surgeons first published their data, their results have dramatically improved: survival rates for many procedures have increased by a third; 1,000 patients live each year when they might previously have died.

Transparency saves lives and is a basic human right yet transparency, unlike heart surgery, is not mainstream in our health and care services. Last year, I outlined a vision to make transparency the operating principle of the new NHS. Data sharing between professionals, patients and citizens is the precondition for a modern, sustainable public service: how can we put patient outcomes at the heart of healthcare, if we cannot measure them? How can we help clinicians maximise the effectiveness of their resources, if they do not know where they are spent? How can we ensure the NHS remains at the cutting edge of statistical and medical science if we do not allow researchers and entrepreneur's safe access to clinical data?

Above all, how can we support patients to take more control of their own care if we do not give them access to their own data? Transparency, I have always argued, is key to public and patient participation and is the means by which we create high quality, sustainable health services.

Events of the last 12 months have only emphasised why the data revolution is so urgent. We forecast a £30bn funding gap over the next few years in the NHS – a key response must be to do what every other large consumer industry has done and extract human and economic value from technology.

Technology is of no value in its own right but it has the capacity to unleash the power of people: to liberate data and give customers the ability to do more for themselves so that services are delivered better, faster and at lower cost. That's the lesson from banking and from airlines – far from ideal analogies with healthcare – but indicators of the possibilities. In the UK today, more than 22 million adults only do online banking: technology has spurred us cautious Britons to a social revolution.

This is the call to action in the NHS. We are the pioneers of a knowledge revolution – a data-led transformation in outcomes for patients. Clinicians, patients, managers, entrepreneurs – the public at large – all who care about the survival of the NHS must now join in becoming champions of transparency.

NHS England and our colleagues across the national health and care service are making five core offers to support this. First is to transform the availability and quality of clinical data. Care data has been set up in partnership with the Health and Social Information Centre as a programme to deliver new resources to clinicians and commissioners, as well as patients and researchers that will mean people can start to understand the quality of patient outcomes across the care pathway.

The first step is to link GP and hospital data – for the first time – starting in June. The next step is to enrich hospital data. We have recently finished a consultation on how we should develop requirements on providers to enable proper accounting for their outcomes. There are some outstanding examples of the future: hospitals, like University Hospitals Birmingham, which have gripped the digital opportunity and have data flowing in real time improving the safety and quality of every clinical encounter.

The second offer is to support health and care providers to make rapid progress on being able to share their data, safely, and in real time. There is no reason why ambulances should not have access to GP records and be able to upload them as they travel to the patient emergency. To drive this, since NHS England was launched in April last year, the government has announced 2 major new funds to promote deployment of integrated digital records.

Third, the offer is to transform patient and public insight resources for local health and care communities. The Friends and Family Test (FFT) was launched in April 2013 – an unprecedented initiative to capture data on customer satisfaction. Since then more than 1 million comments have been logged – a resource of real richness to help clinicians on the ward make real time improvements in the quality of services. FFT has been rolled out to maternity services and will be launched across all NHS services by March 2015.

Fourth, we are committed to a radical programme of empowering real control for patients and the public, where they wish it. One key commitment is to enable every citizen to have online access to a variety of GP services, including booking appointments, ordering prescriptions and their medical records. Our working relationship with clinical leaders in primary care has been a source of real strength as we collectively embrace the future on many fronts. Working closely with the BMA and the RCGP, among others, we will be ensuring that everyone has access to a useful and understandable medical record as planned. We will be publishing detailed guidance for GPs in coming months.

Fifth, success for all of us depends on making transparency a social movement in health and care. NHS Choices, a global success story, has been improving its offer to patients and the public by maximising their access to data so that everybody – with minimum accreditation – can post their apps, products and service on what is already the largest health and wellness conversation in the world. Around 1 million unique users every day visit Choices.

We have an extraordinary opportunity – and a great responsibility to act. The future is open and it is time for us to make it happen. ■

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- Patient files
- Payment vouchers
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- Pharmacy files
- Practitioner performance files
- Rent & rates files
- Various computer printout listings for BACS payments

If this is of interest please contact:

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Social care technology: improving outcomes

Buckinghamshire County Council shed light on how technology is helping vulnerable people in the county live independent lives...

In Buckinghamshire, a range of Telecare packages for use by both young and older vulnerable people have been introduced. The aim of these packages is to help them learn life skills and live more independent lives.

Packages range from a basic emergency pendant and key safe, to more sophisticated technology which tracks people's movements and alerts professionals if and when needed.

One of the services we are trialling is a primary care technology scheme which lets patients use a text messaging service to carry out routine tests on themselves. This information can then be sent back to their GPs, and avoids the need for a visit to their doctor's surgery.

The service also allows people to check their own blood pressure, weight, and reminds them of when to take their medication. 78% of GP practices across Buckinghamshire are already signed up to this national scheme.

Trials of services for younger adults with learning difficulties or mental health issues, such as autism are also proving successful.

For example, a specially adapted iPhone is helping a 22-year old with learning difficulties to cook his favourite recipes in the kitchen. Through the use of pictures and voice commands he is instructed how to wash his hands, find the cooking utensils, ingredients, and how to prepare the meal.

Another scheme which also involves the use of a Smartphone helps vulnerable people use public transport on their own. When the person reaches their destination or travels too far off the beaten track, the service will send a text message back to their carers to alert them.

Patricia Birchley, the County Council's Cabinet Member for Health and Wellbeing said: "These are great examples of how we are using technology to create new opportunities for learning and development. Apart from a better outcome for the individual by using technology solutions, this can reduce the cost of more traditional forms of care such as residential or nursing. It also demonstrates the results we can get through joint working between the Council and the NHS." ■

Buckinghamshire County Council
www.buckscc.gov.uk

The FACE RAS

Effective information for health and social care...

The FACE RAS is the country's most widely used resource allocation system, being used by over 41 councils collectively, serving over 20% of the population. The goal of the FACE RAS programme has been to develop a resource allocation system that is:

- Needs-based;
- Accurate;
- Integrated with community care needs assessment;
- Scientifically validated;
- In harmony with personalisation and the integration of health and social care.

FACE Assessments

At the heart of the FACE RAS are FACE assessment tools, nationally-accredited in 2003 by the Department of Health for their holistic person-centred approach to assessment, and their appropriateness for integrated health and social care working. Using the FACE Needs Profile – a single assessment process supports both needs assessment and resource allocation. For people with complex needs, the most recent FACE Overview Assessment maps to the national Continuing Care Decision Support Tool and also provides an indicative budget for our 'Continuing Care' RAS.

Using the FACE RAS

The FACE RAS programme is a collaborative programme. Councils work hand in hand with our dedicated project managers and our team of researchers at UCL, who have supported the validation of our 'national' resource allocation model. Our user groups enable development of a common approach to complex issues such as how to allocate for respite care, or support for social participation. However, at the same time as using a validated standard approach, each council has considerable freedom and flexibility regarding the details of their local RAS set up.

The experience of our users demonstrates that resource allocation systems can, indeed, support personalisation as well as having wider applications, including being able to evaluate the cost-effectiveness of social care innovations, to quantity future costs, and measuring the impact of changes in social care provision. Examples of such uses from around the country include use of the FACE RAS assessment to measure the outcomes and cost-effectiveness of reablement or to provide guidance as to the appropriateness of telecare.

As social care develops, we believe that the accurate assessment and prediction of needs, risks and costs, will become more and more central to delivering high quality personalised care in a world where resources are already scarce and becoming scarcer. Developments in the pipeline therefore include the use of FACE assessments to predict risk of hospital readmission as well as continuing care and social care needs.

FACE believes that accurate assessment is essential throughout a person's lifespan. We have therefore also developed a 'Children's RAS' and a suite of risk assessment tools for vulnerable young adults. Over the next year these will become part of a comprehensive set of assessment tools for young people covering health and social care as well as mental health, education and involvement with the criminal justice system.

About us

FACE is committed to making a difference to the delivery of health and social care. The company is a mix of experienced practitioners and technologists committed to improving quality of care and outcomes through the development of reliable and robust information tools.

For more information please contact Hugh Reynolds, Director of Business Development or explore our website www.face.eu.com

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RAS – moving social care forward

Paul Clifford, CEO from FACE Recording & Measurement Systems explains the benefits of Resource Allocations Systems (RAS)...

I was not pleased to be informed in 2007 that in the new world of personalisation, a sheet of A4 was all that would be required for needs assessment, and the prediction of resource requirements – especially as we had undergone a rigorous accreditation process to ensure that our tools met national standards for holistic person-centred assessment. We decided to stand by our belief in the value of high quality assessment and to modify our tools to meet the new requirements of personalisation and resource allocation.

Resource allocation systems (RAS) got off to a bad start because they were so intimately bound up with one predetermined 'solution' – an InControl-style self assessment. The result was that, rather than first considering the problems a RAS could solve and then looking at possible solutions, councils started off with one of many possible solutions – and tried to wrestle it into a shape that worked. Frustrated at their inability to do so, some retreated from resource allocation systems altogether – still without ever having considered the core problem.

However, the issues that personalisation was intended to address remain. So now is as good a time as any to reconsider resource allocation systems: what are they, do they work and can they help social care move forward?

Modelling the relationship between needs and costs

The fundamental problem that a RAS addresses is the relationship between needs and costs. The strength and predictability of this relationship is an empirical question and there is no guarantee that it is strong enough to predict costs at an individual level. This distinction between individual and population prediction applies in many walks of life: people who are more competent are generally better paid but few would expect to accurately predict an individual's salary based upon a few questions on skills and experience. Similarly, there is a strong relationship between lifestyle and health, but insufficient to permit prediction of an individual's health status. However, a resource allocation system has to be able to provide an accurate indication of the likely costs of an individual service user's support. The key question is whether this is possible or not.

How can resource allocation systems be used?

As well as providing indicative budgets, resource allocations systems are capable of helping councils address difficult issues. They can help ensure:

- consistency and proportionality of allocation relative to need;
- that local policy decisions regarding such areas as social participation and respite care are accurately reflected in support planning; and
- that overall costs remain within budget.

They also have broader applications, such as outcome measurement and evaluating the cost effectiveness of interventions such as re-ablement and telecare. More fundamentally, they can help councils move towards a single model of allocation that covers all traditional 'care groups'.

At a broader policy level they can support health and social care integration by ensuring that funds are not 'doubly-allocated' across health and social care, and by identifying individuals who may be eligible for continuing care. Whilst at a population level a good RAS supports; the equitable management of health and social resources; demonstrates equity of allocation and can help predict future costs.

This is no small list of applications and it would be a shame if the legacy of political entanglement resulted in failure to consider such benefits. For example, some have partially blamed resource allocation systems for the failure of personalisation, based on the weakness of the '£ per points' methodology advocated by InControl (Slasberg et al 2012). This ignores wider factors that have slowed personalisation – such as the collapse of the economy and cuts in social care funding.

Personalisation is inevitably bound up with macro-economic conditions. In times of extreme famine NGO's give everyone in a starving village 1 bag of food, regardless of personal circumstance. As scarcity recedes, flexibility increases and it is possible to give those in most need a little more. Similar logic must surely apply to social care: so if we don't evaluate the progress of personalisation in the context of current adverse economic conditions we risk throwing out the baby with the bathwater. In times of scarcity a rigorous approach to allocation becomes even more necessary, to help ensure fair allocation of such resource as there is.

Conclusions

Properly-designed resource allocation systems work and have a potentially important part to play in shaping the future of health and social care and the evolution of personalisation. They help address a central task of social care, that of managing the relationship between needs and costs. As such they are part of the solution to delivering a truly personalised care system. ■

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A whole new world

President of Deafblind International, Gill Morbey sheds light on the disability deafblindness and the importance of raising awareness...

The combination of a sight and hearing impairment (deafblindness) is a disability with little understanding. In the UK alone, there are currently around 250,000 deafblind people, yet public awareness of what deafblindness is can be low. Deafblindness affects a person's ability to communicate, to access all kinds of information, and to get around.

Deafblindness is not just a deaf person who cannot see, or a blind person who cannot hear. The two impairments together increase the effects of each.

The world around us is organised around hearing sighted people, and this can present many challenges to a deafblind person. If you have little or no sight and hearing, learning to communicate, to be understood, or hear other people speaking is very difficult – and can be isolating.

In a crowded room a sighted hearing person sees who is talking to them and hears what they are saying. A deaf person may use their vision to lip-read what others are saying. If an individual also has sight impairment, they will not be able to lip-read and indeed are unlikely to know that someone is even trying to communicate at all.

Other senses can accommodate for the impairments to some degree. The senses of touch, body awareness, balance, taste and smell can be used to access information, develop communication, and help to understand the world around them.

Sadly, for many deafblind people, sight and hearing loss are only part of the picture:

- Sensory loss is known to be prevalent in people with learning disabilities;
- A child may also have difficulty processing information they get from their sight, hearing and touch, and be multi-sensory impaired as a result;
- Many physical disabilities can make communication and mobility difficult;
- Deterioration of sight and hearing is just one aspect of getting older that affects daily life and the ability to be independent.

Many people who are deafblind have rare and varied causes of their sight and hearing loss. They may experience other disabilities and health conditions, meaning that diagnosis and the identification of sight and hearing loss are difficult.

Causes of deafblindness vary across countries. They can include infections during pregnancy, prematurity, rare syndromes, such as Usher and CHARGE, illness and accidents, and sensory loss in old age. In the UK vaccination has almost eradicated rubella, however in some parts of the world the absence of vaccination programmes such as MMR means that children are still being born with the entirely preventable Congenital Rubella Syndrome (CRS).

However, whatever the cause, the common thread is people have huge difficulties understanding and processing communication and information, and individuals will have a unique set of needs that require specialist support. Trained professionals who understand deafblindness are key. A practitioner with knowledge of deafblindness can identify and assess hearing and sight loss in a child who 'presents' with complex and multiple needs. Once deafblindness has been identified, communication systems involving

touch can be introduced. An elderly person who appears to be confused can be supported in mobility through the use of tactile indicators, and in hearing loss through a range of amplification aids. Sometimes the support needed is complicated involving a range of sophisticated tactile communication techniques. On other occasions it is simpler – for example, a vibrating door alarm can quite literally link an elderly person to the outside world.

I am proud to be the President of Deafblind International (DbI) which, for more than 30 years, has been promoting services for deafblind people around the world. We bring together professionals, researchers, families, deafblind people and administrators to raise awareness of deafblindness.

DbI comprises of over forty major deafblind organisations from across the world. Countries include Australia, India, America, Canada, most European countries and many African nations. Sense and Sense International contribute and support the work of DbI in a number of ways. Along with our international colleagues we campaign and inform on all matters related to deafblindness. This varies from advocacy where important achievements have been made. For example, having deafblindness recognised as a unique disability in individual country legislation results in entitlements to education and social care support for thousands of individuals. Many of us also provide direct projects such as vocational training for young people in Africa, family support in India and the next World DbI conference in Romania in 2015.

In recent years, technology has also helped to improve the lives of deafblind people across all ages. From computing aids such as screen readers and Braille displays through to sensory toys for children, these items can play a key role in helping deafblind people live independently, and to make the environment more comfortable and enjoyable. Advancements in communication technology have had a huge impact on deafblind people. At last, through computers and tactile displays, deafblind people can be supported in employment and complex tasks through to simple but important things such as directly contacting friends. More advances in technology have the potential to make real life changes for people who are deafblind and disabled.

As shown above, deafblind people can face significant challenges on a daily basis. However, with support, advice and guidance people can and do achieve great things. It is important to celebrate this and also recognise the everyday achievements that enable people to be part of their families and local communities, doing ordinary things that we too often take for granted. ■

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Allowing change – confronting the challenge

Tim Keightley, CEO of The Foxton Centre explores the subsequent effect on the wellbeing of those living on the streets...

Have you ever wondered what it would be like to climb Mount Everest? People have managed it, but usually they have been supremely physically and mentally fit, highly experienced, skilled and equipped and fully supported by a team around them. And even then, the climb is fraught with danger and risk. But they have chosen to take up the challenge.

It seems to me that a feat of similar difficulty is required of long term 'entrenched' rough sleepers if they are to overcome their physical and mental health issues and associated dependencies and move permanently away from homelessness. Such a challenge can seem equivalent to that of climbing Mount Everest.

So when it is said, or observed, that some homeless people don't want to change, that they have chosen this lifestyle, even that they are happy to stay the same, the difficulties preventing them from believing they have any realistic choice should be borne in mind.

Long term rough sleepers can become entrenched in a way of thinking as well as a way of being. The way of thinking can prevent the contemplation of real and lasting change. Such change is 'beyond' or 'not for me'. This reasoning can be enforced by previous failed attempts, with tenancies or rehabilitation for example. Such people can then withdraw into themselves and into a pattern of existence that makes them 'hard to reach', sometimes physically but more often conceptually and emotionally. One result of that is to believe that change, and that I, is not/am not worth the effort.

Yet, in my experience of working long term with entrenched rough sleepers there is an answer. Consistent and persistent contact can enable the painstaking building of relationships of trust and honesty. Within that, self esteem and self belief can grow. This requires a steady process of informal education, encouragement, opportunity, examining possibilities, confronting fears, naming prejudices, responsive and adaptable services and taking small steps. It requires that people are valued as they are and not just for what they might become.

The process requires the commitment and engagement of the rough sleeper and 'the agency', or more likely of a dedicated and skilled worker or workers within the agency. It is more than work; it requires approaches associated with social pedagogy. The process must allow for 'failure' for second and third chances and the recognition that progress can be incremental.

There is the requirement for the agency not to take 'no' for an answer. Whilst this is never coercive, it is based on the belief in the possibilities for and desirability of human flourishing. It is motivated by the belief that if, once, barriers of self belief are removed, the 'no' becomes a 'yes'.

It is the voluntary sector agencies that are best placed for such work and which must be funded in the longer term. Outcomes must also be measured in increments.

Even Mount Everest is climbed one step at a time. ■

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The cancer challenge

Commissioner for Health, Tonio Borg supports Europe's concerns about cancer and the huge challenges it presents...

Cancer continues to present a huge challenge for patients and their families, for health policy and for health services across the European Union and indeed beyond.

This is a challenge that can only grow bigger as the population grows older and that's why we need to address it head on. In 2012 alone, 2.6 million European Union citizens were diagnosed with some form of cancer. In the same year, cancer killed close to 1.3 million people in the same European Union.

Given today's incidence rates, we expect that in the European Union, 1 in 3 men and 1 in 4 women will be affected by cancer before reaching 75 years of age.

Cancer is not something that happens only to others. It happens to everybody: our family members, friends, neighbours, colleagues.

This is why cancer is, and must remain, a high priority at all levels.

For over 20 years, the European Commission has contributed towards addressing the cancer challenge. Indeed, the Commission is committed to supporting Member States in the field of cancer.

The Commission launched the European Partnership for Action against cancer back in 2009 and a Joint Action with Member States to implement it. The Joint action provides a framework for identifying and sharing information, capacity and expertise in cancer prevention and control.

This coordination of activities at EU level has helped to pool together expertise, avoid duplication of efforts, and further supported Member States in the development of their national cancer strategies.

Let me briefly mention three examples which highlight the added value of such joint action:

National Cancer Control Strategies

First, we have agreed that by 2014, all EU Member States will have implemented National Cancer Control Strategies or Plans. This will contribute to our ambitious goal to reduce the incidence of cancer by 15% by 2020, as set in our Communication on action against cancer.

Second, the Commission, in co-operation with the International Agency on Research on Cancer, is supporting Member States in implementing screening programmes by developing guidelines for quality assurance for breast, cervical and colorectal cancer screening.

Third, the Commission is currently working on revising the European Code against Cancer, first adopted in 1987. The code is a set of recommendations which seek to get across to citizens two clear measures:

- Certain cancers may be avoided by adopting healthier lifestyles: and here the code includes, for example, the recommendations not to smoke;

- Cancers may be cured, or the prospects of cure greatly increased if they are detected early.

We are confident to launch the revised Code early 2014 and very much hope that patient and medical organisations will play a key role in promoting it. This is particularly important in reaching out to citizens to help prevent cancer, or at least diagnose it at an early stage.

Tonio Borg
Commissioner for Health

The results so far at this Joint Action will be presented in an Open Forum to be held in Ljubljana in November 2014.

Looking further ahead, in 2014 the Commission intends to launch a new Joint Action with Member States on Comprehensive Cancer Control.

The aims of this new Joint action, which we are currently discussing with the Member States, are to identify key elements and quality standards for cancer control in Europe, and to facilitate co-operation among Member States. This includes the exchange of best practices as well as defining key elements to ensure optimal cancer care.

Let me now focus on breast cancer screening, where we have asked the European Commission's Joint Research Centre to update the current European screening and quality assurance guidelines.

The new guidelines – scheduled for 2015 – will help Member States develop and modernise their strategies on breast screening and management, in the best interest of millions of women across the EU.

The new guidelines will form the basis of a set of minimum quality standards for breast cancer services and a voluntary assurance scheme, to be underpinned by accreditation.

This voluntary scheme – the first of its kind in the EU – would place the focus firmly on the patient and would cover all aspects of diagnosis and care.

Let me add that our Joint Research Centre is in the process of setting up a European Cancer Information System, to bring together cancer registries from across Europe. Once again, this work will be taken forward in close cooperation with all relevant stakeholders.

Harmonised data is key to enable better monitoring of the direct effects and benefits of cancer policy interventions, and to allow accurate comparisons to be made across regional and national boundaries. As such, the system will provide a valuable resource for research on cancer, fostering greater understanding of inequalities and related causes.

Still major work to be done

We have come a long way in fighting cancer. There is much work being undertaken and more work is in the pipeline.

It is important to ensure that all this work is taken forward in a co-ordinated and coherent manner. Our success depends very much on sound investments, on sustainable actions, developed in partnership.

To improve the overall governance of our work on cancer, we are considering the creation of a European Union Experts Group on Cancer Control with Member States' representatives and stakeholders, including health professionals and patients organisations. Such a group could help to ensure that a sharp focus is kept on priorities, that actions are effectively co-ordinated and duplication of effort is avoided.

Let me conclude by reassuring you that the Commission remains fully committed to cancer control policy. Our goals remain to prevent cancer where we can, and to improve the prospects of cancer patients obtaining appropriate and timely diagnosis, information and care. ■

Article taken from a speech given at The European Cancer Congress – 30 September 2013

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Hepatocarcinogenesis and future challenges

Pre-clincial models for virus- or high fat diet-induced liver cancer

Hepatocellular carcinoma (HCC), is the most common type of liver cancer. With more than 80% of Hepatocellular carcinoma cases worldwide, all being associated with chronic HBV – (hepatitis B virus) or chronic HCV (hepatitis C virus) – infection [1], these two hepatotropic virus infections resemble a huge health problem and have to be a central focus in basic HCC research. Chronic inflammation of the liver due to persistence of the virus leads to cell death and compensatory hepatocyte proliferation as well as pro-fibrotic effects being known as key drivers in HCC development [2].

Liver damage is largely due to influx of immune cells and destruction of infected hepatocytes [3]. The different phases of immune response and viral replication exhibit specific risks for subsequent liver damage, necro-inflammation and subsequent HCC development [4]. Numerous mouse models partially reflect this sequence (see above and reviewed in [5]). The host immune response to the virus determines largely the severity of liver inflammation and subsequent liver damage [6]. Secondly, both viruses are known to have direct oncogenic potentials, which can be dissected from inflammatory liver damage. Patients chronically infected with HBV are facing a possible HCC development in the absence of inflammation, severe liver damage and cirrhosis due to direct oncogenic viral factors [(4, 7-9)] or even in occult HBV infection [10]. However, the exact role of direct viral factors in HCC development remains to be elucidated. Moreover, high fat diet and high sugar diet have come more and more in the focus of liver cancer development. In recent years high fat diet and high sugar diet – driving non-alcoholic liver disease (NASH) – has become a huge problem – causing the fastest growing cancer in the USA and soon in Europe: NASH induced liver cancer.

In industrialised countries high fat diet induced liver cancer is a fast growing cancer type – thus in the coming years of utmost clinical importance. Here, the use of valid mouse models is a key in dissecting and understanding viral factors in hepatocarcinogenesis.

Up to now liver transplantation has been the most effective way to prolong the live-span of patients – but in 50% of the cases cancer is coming back. Various novel drugs have been investigated. Although these regimens are successful approaches to prolong the life span of liver cancer patients – these drugs are rather palliative than curative. HCC do not resemble a single entity but rather a diverse spectrum of cancers in humans. In many cases individual patients carry different liver cancer-subtypes, not only distinct in their morphology, their genetics and epigenetics but – most importantly – also in their responsiveness to therapy. Thus, liver-subtype specific, personalised therapeutic approaches will be needed in the future – depending on the tumor-type, the tumor-stage as well as the individual composition of distinct liver cancers in one and the same patient.

Due to the above outlined problems a systemic, therapeutic approach to treat liver cancer in humans is not available – underlining the urgent need for new targets that can be included basic research and clinical trials. **In the light of the above modeling liver cancer in rodents appears to be very important, but which mouse models resemble what human pathology? A question that needs to be urgently investigated and answered in the future.**

Mouse models for HBV associated HCC

Chronic HBV infection is the most important risk factor for HCC development worldwide [11]. Approximately 240 to 350 million humans worldwide are estimated to be chronically infected with HBV and face hepatitis B related end-stage liver disease and HCC, with up to 54.4% of HCC cases being attributable to HBV infection [(1, 12)]. The attributed fraction is lower in developed counties (23,3%) than in developing countries (58,8%) reflecting the variable burden of chronic HBV infection between different areas worldwide [(4, 13)].

Human hepatitis B virus is a member of the hepadnaviridae family, infects the liver of humans and humanoid primates. It is characterised by a very high host and cell tropism and only infects hepatocytes of humans or humanoid primates due to specific binding of the preS1 domain of the large envelope protein to hepatocytes by the bile salt transporter sodium taurocholate co-transporting polypeptide (NTCP) [(14, 15)]. This finding and characterisation of the NTCP will help in generating new mouse models in future.

Numerous transgenic mouse models already exist, which express specific fragments or even all viral proteins encoded by the HBV genome usually under the control of a liver-specific host promoter or the HBV promoter and provide reliable proof on direct effects of viral factors in HBV-induced liver carcinogenesis.

In this line the group of Chisari could show over 20 years ago that a sequence of liver cell injury, inflammation and compensatory proliferation, can act as an inexorably progresses to hepatocellular carcinoma in a mouse model overexpressing HBV large envelope polypeptide as well as Pre-S, and parts of HBx gene under the control of the Albumin promoter [16]. These (Tg(Alb-lHBV)Bri44) mice exhibit liver cell injury by the age of 4 months and regenerative hyperplasia by 6 months, which drives formation of large adenomas from the age of 12 months with progression to HCC between 12-20 months [(16, 17)].

Using Tg(Alb-lHBV)Bri44 mice a different study demonstrated after a reconstitution experiment with bone marrow and spleen cells from syngeneic non-transgenic donors that had been previously immunised with recombinant vaccinia virus (HBs-vac) the prominent role of chronic immune-mediated liver cell injury in triggering the development of HCC in the absence of viral transactivation, insertional mutagenesis, and genotoxic chemicals [18]. However, microarray analysis of Tg(Alb-lHBV)Bri44 mice at 3 months of age showed that accumulation of viral proteins overexpressed under the Albumin promoter results in significant difference of expression of 45 genes being associated with proliferation, immune response and several of the genes being associated with apoptosis; concluding that deregulation of apoptosis, could be a mechanism through which HBV directly promotes HCC development [19].

Several studies reported pro-carcinogenic effects of HBV proteins or of their randomly truncated transcripts after integration 4. Yet, overexpression of the gene for the HBV large envelope protein in a transgenic mouse (50-4), under the control of rat albumin promoter were reported to not show spontaneous HCC until 15 months of age. The mouse strain 50-4 displays liver injury secondary to overexpression of the HBV large envelope protein, which sensitises livers to chemical carcinogens (i.e aflatoxin and diethylnitrosamine). Adult transgenic mice (50-4) exposed to aflatoxin and diethylnitrosamine (DEN) developed HCC over the age of 15 months with low incidence while dysplastic nodules were found frequently. Microscopically, adenomas and carcinomas were only seen in transgenic mice treated with aflatoxin or DEN and none was found in either control untreated transgenic mice or non-transgenic mice treated with carcinogens [20]. This however provided strong evidence for proposed synergistic effects in HCC development. Induction of increased ER stress and compensatory proliferation by preS2 mutants is suggested to contribute to HCC development.

In two HBV transgenic mouse models harboring a mutated preS2 as well as the complete genome of a mutant HBV ("preS2 mutant") the development of HCC was shown by the age of 24 months pointing to a direct carcinogenic effect of preS2 mutants in HCC development [21]. In order to dissect the role of large HBV surface protein (LHBs) and C-terminally truncated middle size surface proteins (MHBs(t)) which show transcriptional activator function, mice transgenic for the PreS2 activator MHBs(t) under the control of an albumin promoter together with a b-globin intron were generated [22] and compared to already established mice transgenic for LHB under the control of the albumin promoter [23]. Transgenic mice for the PreS2 activator MHBst76 showed development of liver tumors/ nodules in over 65% at the age of over 15-18 months in a c-Raf-1/Erk2 dependent manner. Yet, there was no clear examination on the grade of malignancy of the tumors and wildtype mice were as well reported develop nodules in 10% [22].

HBx, a small polypeptide of 154 amino acids of size is usually expressed at low levels during acute and chronic HBV infection and was reported to be frequently detectable in HBV-related HCC tissue [24]. This may be explained by the fact that HBs and HBx may still be expressed from integrated, linear double stranded DNA. However, the role of HBx in HCC development remains controversial in in-vitro as well as different transgenic mouse models. The mouse strain CD1 transgenic for HBx under its own transcription enhancer [25] as well as C57BL/6xDBA mice transgenic for HBx plus a portion of pre C-C under the HBV transcriptional enhancer [26] were reported to spontaneously develop neoplastic nodules/adenomas at the age of 6 to 10 months and HCC starting from 11 to 18 months [(25, 26)]. However, mice transgenic for HBx (nt 1376-1840) under the control of the human alpha-1-antitrypsin regulatory elements (ATX mice [27]) as well as PEX lineage that express HBx in the liver under control of different viral regulatory elements (enhancer I, X promoter [27]) did not show spontaneous HCC development, indicating no direct carcinogenic effect of HBx [(28, 29)]. Yet HBx expression sensitised ATX mice to other known carcinogens (DEN) [28]. Mice liver-specifically expressing of c-myc driven by woodchuck hepatitis virus regulatory sequences causes liver cancer in all animals. These mice were crossed with ATX and PEX lineages, showing an earlier tumor development (2 to 3 months earlier) in bitransgenic animals. This as well proofed HBx to act as a synergistic tumor promoter by deregulates the hepatocyte growth control in vivo, yet not driving HCC by its own [29]. The latter findings of an increased sensitivity to HCC development by expression of HBx was supported by another mouse model being transgenic for the oncogene c-myc together with a truncated HBx protein [30]. This two-hit hypothesis might reflect the human situation where full-length HBx is expressed in low levels together with other viral proteins and HCC development is rather dependent on inflammation and other synergistic factors.

Hepatitis C Virus

Approximately 180 million people worldwide are estimated to be chronically infected with HCV. The risk for chronically HCV-infected patients to develop HCC is 17- to 20-fold higher in comparison to HCV-negative controls 1, with up to 31.1% of HCC cases being attributable to HCV infection 13. HCV-associated cirrhosis is the major risk factor for hepatocarcinogenesis. Once established, the annual incidence of HCC is 1% to 4% independent of an interferon therapy [(31, 32)].

Numerous transgenic mouse lines exist expressing different HCV proteins (i.e. structural proteins: E1, E2, p7 and non-structural proteins: NS2, NS3, NS4A,B, NS5A,B). Some of these transgenic mouse models, in which the HCV proteins are expressed, helped to elucidate a direct pathogenicity of HCV, including oncogenic activities [33]. A direct oncogenic potential a HCV protein was first shown in two lines (C21 and C49) of HCV core (genotype 1b) transgenic mice under the control of an exogenous promoter. These mice development hepatic steatosis beginning at 3 months, adenomas from 12-16 months of age and HCC with an incidence of 25% in C21 and 30% in C49 animals at the age of 16 months [34].

In a proteomics approach a sequence of changes as possible steps in direct HCV-dependent hepatocarcinogenesis were shown in livers of latter mice (C21 and C49): after 6 months suppression of apoptotic proteins, after 12 months up-regulation of proteins related to respiration, the electron-transfer system, and anti-oxidation and after 16 months suppression of proteins related to defense, beta-oxidation, and apoptosis [35]. Koike et al. reported no tumor development in mice transgenic for HCV envelope gene (E1-E2) under the control of a regulatory element from hepatitis B virus until the age of 18 months and no evidence of tissue pathology in the mouse liver up to 16 months of age, suggesting that E1 and E2 proteins may not have direct pathogenic effects [36].

Another study compared mice expressing HCV core, E1 and E2 (Core-E1-E2 Tg) under the albumin promoter to previously published mice expressing HCV core alone under the control of regulatory element from hepatitis B (core tg [(34, 37)]). In contrast to earlier findings, Kamegaya et al. reported no spontaneous HCC development in either Core-E1-E2 Tg or core Tg animals, which was concluded to might be due to the mixed FVB/C57Bl/6 background [38]. After DEN treatment Core-E1-E2 Tg mice developed larger tumor nodules as compared to control DEN-treated animals after 32 weeks. Taken this finding, Kamegaya et al. conclude a potential direct carcinogenic effect of HCV envelope proteins E1 and E2 in conjunction with core by suppression of apoptosis as a two hit model in HCV associated hepatocarcinogenesis [38]. A direct carcinogenic effect of HCV structural but as well an possible role of non-structural proteins was confirmed in mice transgenic for full-length HCV polyprotein (FL-N strain) and transgenic mice for structural protein (S-N strain). These mice show with age increasing steatose, and HCC development in the FL-N strain starting at 13 months and in the S-N strain starting at 18 months of age in the absence of inflammation due to being transgenic for HCV proteins. Thus, expression of the structural proteins enhances steatosis additional low level expression of non-structural proteins increases the risk of cancer [39].

High fat diet and cancer

Importantly, only recently – in line with epidemiological studies – it was shown that dietary and genetic obesity promote non-alcoholic steatohepatitis (NASH; (pathologic hepatic lipid deposition and hepatitis) and tumorigenesis. Moreover, combination of high fat, high sugar diet and little exercise additionally worsen this problematic development. Currently, mouse models are urgently needed to investigate this disease with a mainly dietary origin, to compare them with the human disease and to use them as preclinical mouse models. Given the effort that has been invested in the past to understand and treat HCC – either induced by viruses, high fat diet or chronic alcohol consumption – clinical success has been extremely small. **Only good pre-clinical mouse models will pave the way to change this in the future and to be able to deal with the coming problems of NASH induced liver cancer.**

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Empower, support and encourage action

Emma Greenwood, head of policy development at Cancer Research UK explains the importance of early diagnosis for cancer within local communities...

Cancer remains a major focus for the health service in England and, after the Health and Social Care Act came into force earlier this year, Local Authorities have an even bigger part to play than before.

Local Authorities have long been engaged with the health of their communities, but the Health and Social Care Act has reaffirmed that responsibility and given them specific public health and health promotion functions. Health and Wellbeing Boards have been established to bring together organisations with a responsibility for health across a local area and help identify the needs of the local population.

Empowering local populations to manage their own health effectively should be a key part of a local authority's public health responsibility. While this clearly includes action on lifestyle factors such as smoking, obesity and alcohol, it's equally important to raise awareness of symptoms that could indicate something serious, and encourage people to take action.

Dealing with the increasing burden of cancer is one of the biggest challenges facing our health service. Cancers are now responsible for 29% of premature deaths – higher than any other disease group and, as our population continues to age, cancer incidence will only increase. Study after study has shown that England and the UK tend to lag badly behind the best performing European countries in cancer survival and, over time, with the exception of breast cancer, the gap doesn't appear to be narrowing.

Earlier diagnosis and access to the best treatment are both crucial to improving survival. Over the last 40 years we have seen huge increases in survival for many cancers – more than 95% of men who are diagnosed with testicular cancer will now survive longer than 10 years, along with well over 70% of women with breast cancer. Further progress is possible, but in many cases survival has remained stubbornly low. For example, 10 year survival for lung and oesophageal cancers has remained below 10%, with only very slight improvement since the 1970s.

We know that improving public awareness and urging people to engage with their local services works and is cost-effective. The recent Be Clear on Cancer campaign, run by the Department of Health and Cancer Research UK, saw hundreds more lung cancer patients receiving surgery who otherwise wouldn't have done, which is vital to improve survival. So how can Local Authorities help?

With responsibility for public health and early diagnosis shared between national and local healthcare commissioners, providers and Local Authorities, it is essential that these bodies work together closely. Cancer Research UK has recently launched a local statistics website (www.cruk.org/localstats) to help local authorities, health and wellbeing boards and other local health and Government organisations pinpoint areas for particular focus and compare their area to others around the country.

Local Authorities have an important voice, and they work with and provide services to many of the most vulnerable people in our communities. Engaging with those people and helping them to manage their health and take action if they do have potentially serious symptoms is an area where Local Authorities could make a real and significant difference. Cancer Research UK's popular Talk Cancer workshops (http://www.cancerresearchuk.org/cancer-info/healthyliving/healthinyourcommunity/earlydiagnosisworkshops/) are aimed at individuals and teams who have a remit to promote health and wellbeing, either through their existing professional roles, or in a voluntary capacity.

Each local area has to identify the issues which matter most to their local population and decide on the best way to address them. By working through health and wellbeing boards, CCGs, local NHS providers, charities such as Cancer Research UK and the public, local authorities can play a crucial role in improving early diagnosis of cancer in their communities. ■

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Reform for reoffenders

Adjacent Local Government highlights a range of measures that should help in the fight to reduce reoffending rates...

According to the Office for National Statistics (ONS) latest results on unemployment[1], there are around 1.07million young people (aged from 16 to 24) in the UK who are not in education, employment or training (NEET). Estimates suggest this figure costs the UK economy £10m a day in lost productivity, while youth crime costs £1bn every year.

The Princes Trust tries to address this by giving practical and financial support to the young people who need it most. They help develop key skills, confidence and motivation, while enabling young people to move into work, education or training.

They also help offenders and ex-offenders break the cycle and fulfil their aspirations through a leaving prison mentoring project in some regions and countries. Their aim is to encourage young people upon leaving prison not to return, by helping them to access education, training, employment or volunteering.

Young people are mentored by a range of staff and volunteers, many of whom have previous experience of being in prison. They provide through-the-gate support starting with regular meetings in prison before release and then create an action plan to help young people progress to education, training, employment or volunteering.

So what can make a difference in reoffending rates for young people?

- Advice and support from people who have been through the same experiences;
- A supportive family or partner to offer encouragement and motivation;
- Access to courses and qualifications that can be continued in different places, including other prisons and in the community;
- Incentives and rewards (e.g. privileges in prison for taking part in education);
- The same person providing support during the transition from prison to community;
- Practical support with accommodation and independent living on release from prison;
- An activity or programme to engage with immediately on release from prison, especially those that help with acclimatisation;
- Having something positive to do and places to go that are local and affordable;
- A worker or mentor who makes sure appointments are kept, identifying opportunities and encouraging a positive lifestyle;
- Being around other young people you can trust and being trusted;
- Taking on responsibility (e.g. helping to run a project) helps confidence and motivation;
- Being given more information on support programmes available both in and out of custody.

A report from The Ministry of Justice in 2013 titled: Transforming Rehabilitation: a summary of evidence on reducing reoffending, concluded that reoffending rates “have remained stubbornly high, particularly among short sentence prisoners. This Government is absolutely committed to addressing this problem.”

In the report, Jeremy Wright, Parliamentary Under Secretary of State for Justice stated that: “For the first time in recent history, every offender released from custody will receive statutory supervision and rehabilitation in the community. We want to make sure that all those who break the law are not only punished, but also engage in rehabilitation. Our reforms will put in place a system that encourages innovation to improve outcomes.”

Let us hope the new reforms can make a difference in the reoffending rates of our young people. ■

[1] http://www.ons.gov.uk/ons/rel/lms/young-people-not-in-education—employment-or-training—neets-/november-2013/index.html

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Second Chance Offender Mentoring Program

The choices we make define who we are...

Second Chance Mentoring is a new initiative designed to help reduce re-offending. It was founded by two ex-offenders who have successfully broken their cycle of re-offending through tackling their own attitudes and behaviour in their everyday lives. Today they are model citizens and recognize that what worked for them could work for other offenders and this led them to develop their own 7 step peer mentoring program.

Many offenders that they have met have committed crimes due to their lives becoming unmanageable. There are many reasons why this happens, what is vital is that a prospective mentee recognizes the manifestation of powerlessness and unmanageability in various aspects of their life which has led to compulsive and obsessive behaviour. For some this would be addiction to drugs, alcohol or gambling whilst for others it may be as simple as a financial obsession and keeping up appearances with their peers.

Our program is not just focused upon offenders with addiction issues - It is aimed at all offenders who have a genuine desire to break their cycle of re-offending and who wish to live law abiding lives. Our simple 7 step program, when practiced on a daily basis; will progressively eliminate negative behaviour.

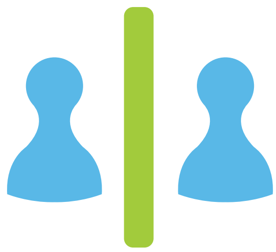
During the past 14 months we have worked with 11 offenders and taken them through our mentoring program. To date only one of this cohort has re-offended. This represents a 91% success rate which we believe merits further backing and support of our program.

We also have several notable success stories:

Faisel is an IPP sentenced offender who readily embraced the fact that he needed to change his life for the better. After benefiting from our mentoring, he has channelled his energy into becoming a Professional MMA (Mixed Martial Arts) Fighter. He is one of the rising stars on the circuit and already has an impressive win record to his credit as well as a growing army of loyal fans who follow him on fight nights and across his social media.

Second Chance Mentoring is set up as a not for profit Community Interest Company and already has established a growing number of supporters including Stephen Fry, Hilary Devey and the Rt. Hon David Lidington MP to name but a few.

For more information about our mentoring program and how we could integrate into your Organisation, please contact us on the details below:



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Tri-borough transformation

Councilor Nickie Aiken, of Westminster City Council gives thought to what support can be provided to female offenders with short sentences...

The Government's 'Transforming Rehabilitation' agenda will mean that management of offenders will be extended to short-sentenced prisoners. That has to be a good thing. We are supportive of the Government's shift to provide targeted rehabilitation to a cohort that has long been overlooked and who have a reoffending rate of over 50%.

In fact, within the Tri-borough partnership (Westminster, Hammersmith and Fulham, and Kensington and Chelsea) we have recognised that short-sentenced prisoners are disproportionately likely to reoffend. They have a significant impact on local communities financially and also by committing offences that are highly visible to our residents, such as theft, motoring offences and burglary. Consequently, we have designed services to support and rehabilitate short sentenced prisoners back into the community, funded with support by the Mayor's Office for Policing and Crime and the Tri-borough Public Health department.

Proportionately more women than men are sentenced to short prison sentences: 59% of women offenders receive sentences of under 6 months but even these sentences have far-reaching social and financial implications. In the UK, it is estimated that more than 17,240 children were separated from their mothers in 2010 by imprisonment. What's more, only 9% of children whose mothers are in prison are cared for by their fathers in their absence.

There are other characteristics to note too. More women than men are sentenced to custody for non-violent offences. Mental health problems and self-harm is much more evident in women in prison. Women are also far more likely to be primary carers of young children, making the prison experience significantly different for women than men.

The Tri-borough partnership has recognised that female offenders have identifiable, distinct and complex needs which should inform the help we offer them. We have therefore established a separate service for female short sentenced prisoners, delivered by ADVANCE Minerva, which began in January 2014. The service begins when women are in prison, supporting them through the gates and beyond. It aims to reduce reoffending by women by 10% over 2 years.

ADVANCE Minerva sets out to reduce reoffending amongst women by targeted support and advocacy that addresses women's complex needs. There is a focus on building basic life skills – helping women to become less dependent on benefits or criminal behaviour, relying instead on their skills and employment. In short, women are given both the opportunity and support to make positive changes in their lives.

Transforming Rehabilitation will see Community Rehabilitation Companies manage short sentenced prisoners, on a payment-by-results basis. There is a risk then that providing services for female offenders may prove less attractive because not only do women make up a small percentage of the overall offending cohort (approximately 7% in the Tri-borough), they have complex needs and require more intensive support. ADVANCE Minerva is one of a small number of services which provides support to female offenders. It is vital that their expertise and experience is not lost in the transformation process. ■

Councilor Nickie Aiken
Cabinet Member for Community Protection, Premises & Parking
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An award-winning social enterprise

Providing good quality housing reduces the re-offending risk...

Vision Housing helps ex-offenders get suitable accommodation and provides on-going support once released from prison. Set up in 2007, Vision Housing is a London-based charity and social enterprise, and is an excellent example of how sectors can work together to reduce re-offending.

Our work has featured on BBC Radio 4, the Community Channel and Sky News. The Prime Minister has used us as an example of the Big Society in action. We also won the 2011 Centre for Social Justice Award, and in 2013 we won the Justice and Redemption Award for ‘people implementing innovative approaches to existing work or developing new and alternative concepts and models’.

Decent homes reduce the risk of re-offending

A key factor which contributes to re-offending is prisoners having nowhere to stay once released from prison. Our findings support what a number of studies have already proven; providing good quality housing reduces the re-offending risk.

Around 62% of people released from prison re-offend within a year, which is a huge issue for society as it blights communities with social exclusion. The Home Office estimates that this cycle is costing the UK £70bn per year.

Vision Housing tackles the issue of re-offending at the root by keeping clients out of prison. Our clients have a range of barriers such as debt, substance misuse or health, so we provide tailored support; starting with housing. By keeping people in accommodation and out of trouble, we save society millions.

Our approach really works

We help those who have fallen through the cracks but we do not do this alone; we have fantastic relationships with bodies including the Metropolitan Police and London Probation Trust alongside other local authorities from whom we also accept referrals.

Previously, landlords have struggled to accept our clients but we have successfully removed those barriers. Subsequently, we have a vast network of landlords across London who accept our clients.

We have strong evidence of the link between housing and re-offending

Since we started, we have provided housing and support to over 1200 people and over 90% have sustained their tenancies. Manchester University academics analysed our re-offending rates and found that our clients had approximately a 10% reduction in re-offending (statistically significant at 95%). This is the first UK study to prove a link between housing and reduced re-offending rates.

The key factors that reduce re-offending

We attribute our success to 5 reasons:

- we can house on the day of release from prison;
- we move people away from their offending area;
- we provide decent accommodation in the private rented sector;
- some of our staff are ex-offenders and can understand the issues our clients face;
- we provide on-going support for as long as our clients want or need it.

We are ready to scale up and increase our social impact

We want to build on our success and become fully sustainable. We will do this in these ways:

- Greater partnership working with private, public and third sector partners;
- Implementing payment by results funding to reward us for our social impact;
- Safeguarding housing stock by having access to our own properties in which to house clients;
- Sustaining our Mentoring Program to support ex-offenders beyond housing.

Vision Housing
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Project 507

Dealing with violence head-on

In an age where a plethora of social enterprise and charity organisations are in operation, Project 507's benefit to the community it serves and the wider positive impact on society is unquestionably tangible.

Project 507 became operational in September 2012 and is currently funded by the National Offender Management Service and the European Social Fund to deliver gang interventions in Youth Offender Institutes across London.

The vision has been to create a business model that empowers itself by genuinely empowering all stakeholders at every level and every stage of the process. With an aim to work with young people leading lifestyles that are physically, psychologically or emotionally harmful to themselves and/or others.

It's unique appeal is the fact that the interventions are designed and delivered by trained practitioners and specialists who are operational within their own communities and who have themselves effectively overcome their own individual experiences of violence.

One third of Project 507's staff are ex-offenders, this is evident from the volunteers to the board of directors. Their first-hand experience in situations similar to the young people they work with, enables them to not only understand the people they are serving, but also helps those affected by violence to work with the Project 507 team.

Founder and CEO Whitney Iles is a social entrepreneur and community activist, who, for the last ten years, has actively engaged with people and projects that have had an impact on society in the UK and abroad:

"The aim of Project 507 is to start looking at violence with a new perspective and wider view, we aim to deal with the causes of violence both personally and socially, working with all who have been affected by it." – Whitney Iles

Project 507 works locally and nationally in partnership with young people, parents, carers, community groups, teachers, the criminal justice system, government agencies and the voluntary sector to bridge the gap between client and service by providing advocacy and training around issues of violence. Project 507 addresses personal development, crisis management, engaging with authorities/education, social etiquette, challenging behaviour, peer motivation, gang mediation, rights and responsibilities, identity, preventing violent crime and offending behaviour.

Project 507 has developed specialised programmes and materials that integrate best practice and learning gathered over a long period of time working within secure settings, and on the streets working alongside young people who are facing multiple challenges. They offer:

- accredited training programmes, bespoke workshops, and motivational speakers – delivered by an experienced and dedicated team.

- bespoke workshops which share our experience of living and working within some of society's most vulnerable communities.

- an experienced team of peer facilitators, all of who have graduated from a Project 507 programme. These young people have managed to break the cycle of street life and stand as credible role models, as people who have overcome destructive lifestyle's choosing n alternative lifestyle and in turn making a positive contribution to society.

Learn more about Project 507 and it's team by visiting www.project507.co.uk or Whitney Iles at whitney.iles@project507.co.uk

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The rise of the Apprenticeship

Karen Woodward, Interim Director of Apprenticeships at National Apprenticeships Service discusses what the training schemes mean for employers...

Apprenticeships have seen a real resurgence in recent years, with employers relishing the opportunity to grow their own talent, while young people are drawn to the chance to earn while they learn and gain experience while working towards a recognised qualification. Online applications for Apprenticeship places have increased by a third (32%) year on year, with over 1.4 million (1,403,920) online applications for vacancies made in 2012/13, compared to 1,063,090 in 2011/12.

As a result of this high demand, Skills and Enterprise Minister Matthew Hancock is urging more employers to consider how hiring an apprentice could benefit their business, and in doing so help create opportunities for young people.

So what does this mean for employers?

If you are an employer looking to recruit new staff then taking on an apprentice can be a very rewarding experience; you can access an excellent package of support including a free recruitment service through the Apprenticeship vacancies; access to quality assured Apprenticeship training and support towards to costs of training which varies according to the age of the recruit.

Currently over 100,000 employers already offer Apprenticeships in over 200,000 locations around England.

The rise in Apprenticeship vacancies emphasises the popularity amongst employers to hire apprentices and many businesses have already cited the benefits of doing so: namely how it helps businesses grow their own talent, develops a motivated, skilled and qualified workforce and can improve productivity while reducing costs.

Apprenticeships deliver for businesses of all sizes, with most employers citing a wish to improve their skills base as the main reason for taking on an apprentice, according to the British Chambers of Commerce. Companies offering Apprenticeships view them as advantageous to their long-term development, with 96% of apprentice employers reporting benefits to their business.

Greater productivity is reported by around 72% of apprentice employers, with the average Apprenticeship completer increasing business productivity by £214 per week, a figure incorporating higher profits, lower prices and better products. Other benefits reported by around two-thirds of apprentice employers include improved products or services, the introduction of new ideas to the organisation, improved staff morale and better staff retention.

Is there an Apprenticeship suitable for my recruitment needs?

Apprenticeships cover over 170 industries and 1500 job roles, in a range of sectors from marketing to accountancy, engineering to veterinary nursing, community arts to construction.

There are also 3 different levels that open up more options for employers so you can recruit an apprentice for any level within your business. The 3 levels are:

- Intermediate – equivalent to 5 A*-C GCSEs;
- Advanced – equivalent to 2 A-Levels;
- Higher – equivalent to foundation degree and Level 4 or 5 vocational qualifications.

The National Apprenticeship Service is here to support employers of all sizes take on an apprentice. A team

Comment from Matthew Hancock

Recent figures show that more people than ever before are taking part in an Apprenticeship, and The Skills and Enterprise Minister, Matthew Hancock said the figures are good news for the economy:

"These figures show that a record 868,700 people were in Apprenticeships last year, which is up 77% on 2009/10. I am also pleased to see that there were 13,000 people in higher Apprenticeships last year, which is double the previous year's figure.

"This is good news for the economy, and good news for those getting the skills they need to prosper," added the Minister. "I want the new norm for people leaving school or college to either go to university or choose an Apprenticeship.

"By focussing on the quality and rigour that people and employers want from Apprenticeships, this will make the vision a reality."

of experts, including small business specialists, will help employers:

Decide on your requirements with an Apprenticeship Adviser, and drive recruitment through the free Apprenticeship vacancies service;

Deliver the Apprenticeship, working with a training organisation to reduce the burden on your business;

Develop your apprentice, for example entering them into awards and competitions to put your business on the map.

In addition, employers and businesses that employ up to 1000 employees may be eligible £1500 grant to help cover the cost of starting a new apprentice aged 16 to 24 years old. An extra 35,000 young people have been able to start an Apprenticeship thanks to this grant.

Apprenticeships are steadily becoming a 'norm', or even the 'first choice' for many talented young people. It is also evident that with more employers creating vacancies it can bring about long-term benefits to employers in terms of increased quality, financial savings and a committed workforce.

Nonetheless there is still work to be done to ensure that the strong demand from young people for Apprenticeships is met with a suitable supply of roles. It is vital that employers are encouraged to take advantage of the benefits that Apprenticeships bring.

There really has never been a better time to recruit an apprentice. ■

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A NEET solution

How NEETs can provide a solution to public sector employers

The Real Apprenticeship Company Limited (TRAC) works with employers as a solutions partner. We develop models to support improvements responding to the need to integrate working practices to address business critical issues. TRAC has a track record of placing NEETs into the workplace through its talent programme. The programme embeds an apprenticeship or internship and supports employers in improvements across a range of functions. TRAC works in partnership with employers mapping current in house training, cultures and objectives against the Apprenticeship Framework. This ensures the employer's approach to training is linked to a talent programme from day one. TRAC has placed 500+ NEETs into employers. Here is a small selection of our success stories:

Sam was a 17 year old who left school without any qualifications. He struggled with mathematics and had no formal learning since the age of 13. He had a clear direction and was keen to improve his qualifications. His interest in warehousing enabled him to start to meet the challenges he faced with mathematics. Sam was provided individual support after a diagnostic assessment identified his learning difficulty. Sam achieved his Level 1 in Application of Number and his apprenticeship. Whilst the depot he was employed at could not offer him a permanent place, they were so impressed with his progress that they supported him to achieve a full time warehouse role at one of their neighbouring depots.

Katie a 21 year old joined a Suffolk company in January 2012 as an administrator. Katie left university in her first year recognising that it was not for her. Katie was looking for something different. Katie applied for the business administration programme and her employer was blown away by her enthusiasm and maturity. She was able to add value to the employer and was offered a post within the company.

Michael is a 23 year old who left school at 16. He had a variety of roles and then decided to return to college to improve his education. He completed his National Diploma in Engineering but could not fund his degree programme. Michael wanted a job that would support him with his career path. Michael successfully applied for an internship with TRAC and is in full time employment and completing his HNC in Engineering.

Why are we successful?

Our employers constantly tell us that:

"TRAC worked with us right from the start to develop a programme that was fit for purpose. They spent time with us understanding our culture and values so that they approached and recruited new staff in the right way for our business.

They keep you informed of learner progress and issues every step of the way and are very quick to act to any requests we have to ensure we maximise the opportunities to our learners and the business.

They keep their promises and on many occasions have exceeded our expectations in the support they give."

For all the latest news, please visit: www.therealapprenticeship.com/news

the real apprenticeship co.

Debbie Shandley
Chief Executive
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Notes from the Far East

Debbie Shandley of the Real Apprenticeship Company Ltd reflects on recent government reforms and how they impact on apprenticeships in England...

Recently I visited Beijing as a guest of the Chinese Government and the British Council to support their capacity building and employability programme leading to the introduction of apprenticeships from June 2014. I was impressed by their approach to embedding world class apprenticeship training into their enterprises.

The visit enabled me to reflect on the journey England has taken to secure a technically competent workforce. The quest to continuously improve apprenticeships is a given. The recent government consultation which has recommended the next phase of apprenticeship development puts the employer at the heart of the process. The Chancellor's Autumn Statement has emphasised the importance of the employer in the apprenticeship relationship through recommending that future government funding will be channelled through the employer. The relationship has now moved from one of learner, employer and training provider, to, employer, The Department for Business, Innovation and Skills (BIS) and awarding body. Never has there been a better time for public sector employers to engage in shaping the agenda and to put into practice the themes of the Review. Much of what is proposed goes to the heart of succession planning, diversification and the acquisition of new skills or up-skilling the existing workforce.

"The Future of Apprenticeships in England: Next Steps from the Richard Review March 2013"; supports the redefining of apprenticeships so they add value and raise ambition. Critical to success is effective integration of transferable skills and a model that puts employers at the heart of the process. At last the voice of the workplace is heard. The public sector can start to focus on job roles designing programmes that are output and impact focused to address skills issues. There is much work to do to raise the image of the public sector brand capable of attracting the very best talent and existing skills deployed elsewhere in the UK economy. The ESRC Centre on Skills, Knowledge and Organisational Performance in its report the "Review of Apprenticeships Research Project Keep and James recognises that the brand value of the organisation is paramount to ensuring high quality applicants. The public sector needs to be amongst the top employers across England that ensure competition for apprenticeship places outstrips competition for places to Oxford and Cambridge Universities as it does for companies such as British Telecom and Rolls Royce.

The report provides a refreshing opportunity for the public sector to use its expertise to develop approaches that take the best from industry to secure a talented workforce. As a sector it has the capability to develop common models, use its existing workforce development gurus and in partnership promote, recruit and innovate adding value as apprenticeship training evolves The reforms will not be easy but the rewards for stakeholders mean they must be pursued. Learning from success, partnering with key stakeholders and developing sustainable training plans will bring reward.

Exporting our expertise to China makes me proud. However, I know that much of what I have developed is based on good practice in the UK and the recommendations within the Richards Review. ■

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Tackling the construction skills 'time bomb'

William Burton, interim chief executive at CITB explains the importance of up-skilling the next generation of workers to meet growth in the construction sector...

As the UK construction sector is beginning to turn a corner, the time to recruit new employees to replace more than 400,000 retiring workers and offset a skills 'time bomb' is now.

Recent reports from the Markit/CIPS Index show that the construction industry has not only grown again for the fifth consecutive month, but that it is outperforming other UK sectors in re-balancing the economy.

While this is positive news for the industry as a whole, labour market intelligence published by the Office for National Statistics (ONS), shows that the UK construction sector is facing a skills 'time bomb'. Indeed, the industry needs to replace almost 1 in 5 of the current working population in the next 5-10 years – equivalent to just over 400,000 people.

Additionally, the figures also show the industry is suffering with a shortage of young people coming into the industry, with the number of 16-35 year olds making up just over a third of the sector's workforce and just 10% of those aged under 25.

Ignoring this growing obstacle is no longer an option and it is now imperative that employers do all they can to up-skill the next generation of workers and ensure that the level of skills within the sector is sufficient to meet the growing demand.

As an industry that is larger than the financial services sector, construction is a vital engine for the country's economic growth. In fact, it returns £2.84 for every £1 invested in it, so has the ability to kick-start a very strong recovery. However, without a pipeline of skilled workers to deliver planned projects, the sector may be unable to fulfill its potential.

Many of you will remember the skills shortages that plagued the industry in the early to mid 2000s, before the economic downturn really hit hard, and urgent action is now needed to make sure we do not end up in the same situation in the next couple of years.

To address the issue, CITB, the Industry Training Board and Sector Skills Council, is working hard to change the image of the industry and deliver training to meet the skills needed and bring fresh blood into the construction sector.

We must get young people interested in construction while they are still at school; ensuring that we tap into the pipeline of talent and begin to influence where it matters – in the classrooms.

On that basis, we have a network of Construction Ambassadors working across the country, who are experienced industry professionals 'on the ground' in secondary schools, sharing their positive experiences with pupils – with the aim of inspiring them to see the wide range of opportunities that construction offers.

Then, once interest in the industry is secured, it is our role to provide the skills and training the industry needs. It's imperative that the qualifications and training provided to young people are as good as they can be.

Last year, CITB supported over 17,000 construction apprentices and delivered more than 3000 into jobs. Furthermore, the National Construction College – the training arm of CITB – is the leading construction training provider in Europe, delivering qualifications to meet the needs of employers across the sector.

We must also recognise that construction is a constantly evolving sector, and its training infrastructure must also evolve to meet changing needs. That's why, based on a consensus that many young people were entering the industry without enough academic acumen to complement their practical skills, we have been a driving force behind the creation of the West Midlands Construction University Technical College (WMCUTC).

Developed in partnership with a large number of industry stakeholders, the WMCUTC will provide a 'vocademic' style of education – combining practical skills with key GCSE's and work placements to ensure that its graduates have a good blend of attributes. The institution opens its doors in September 2014 for its first cohort of 14-19 students.

As young people begin employment in the industry, we believe it is fundamentally important that businesses are able to take control of their own training needs. With this in mind, CITB offers training grants to construction firms to ensure the long-term growth and development of their staff. Indeed, last year, CITB provided more than £78m in grants and helped hundreds of employers to create training plans to meet their skills needs.

Our various initiatives will undoubtedly help to ward off the possible skills shortages, but local authorities also have an important part to play.

A client-based approach can also assist with achieving the outcomes for apprenticeships, employment and skills. It is an industry-backed blueprint which provides best practice guidance for those responsible for procuring construction work, and even ensures that skills legacies are created in local areas once work is completed on construction projects.

Finally, the government's 'city deals' programme provides a massive opportunity for councils in major cities to enhance the skills of the local construction industry.

Later this month, CITB will launch its Joint Investment Strategy for the core cities (Bristol, Birmingham, Leeds, Liverpool, Manchester Newcastle, Nottingham and Sheffield) facilitating greater working partnerships between the public and private sectors. This unique process will give local business the 'know how' when it comes to gaining access to funding to overcome skills issues specific to their area, and every £1 committed by one side will be matched by the other – effectively doubling the investment in local employment and skills.

Construction is one of this country's greatest industries, employing around three million people and providing some 8% of GDP. To preserve this position, we must be sure to take every action available to diffuse the ticking 'time bomb' of skills. ■

William Burton
Interim Chief Executive
CITB
www.citb.co.uk

Leading the way

Martin Tett, Leader of Buckinghamshire County Council, tells why, despite 'tough times', he continues to champion a project to invest in the leaders of tomorrow...

This is clearly one of the toughest economic periods in the history of public services, with reductions in central government grant funding forcing us to make substantial financial savings. However, I believe it is no contradiction to say that despite this challenging financial environment, it is more important than ever to invest in the youngsters who will become our 'leaders of tomorrow'.

Make no mistake, councils all around the UK are going to have to find serious savings and make tough choices as we move into this new age of reduced public sector spending.

Buckinghamshire has been proud to support a freeze on council tax over the last 3 years. I had hoped we could deliver another year of tax freeze but this just isn't possible. Our county council faces further reductions in government grants, as well as potentially losing millions of pounds worth of other funding such as the Education Support Grant and New Homes Bonus.

The bottom line is that we need to find at least a further £60m of savings to balance the budget – despite already having made savings of some £85m over the last 4 years. So, in the spirit of true democracy, we've been asking residents to get involved in the decision-making process, through a consultation containing some radical and innovative ideas. If we are to achieve maximum efficiency and the best value for taxpayers' money through this type of innovation, then we need to continue to hire the type of staff who will make this possible.

It is so tempting when times are tough to make the easy and 'knee jerk' savings, such as 'salami slicing' all budgets and cutting back on staff - particularly through blanket staff freezes. It is true that these measures can solve short term cash crises but they far too often lead to long-term strategic problems and pressures.

This is not just a public sector problem. I have seen this too often in private business during recessions – staff freezes for all departments leading to a situation where suddenly the firm is unbalanced in both age and experience mix. Lots of experienced people are due to retire and not enough new blood is coming through the system to replace them. I hope that at Buckinghamshire County Council we will avoid this.

Yes, we must and will make reductions in our staffing levels but I want to see 2 things happening at the same time. Firstly, we must look to our well-developed Strategic Plan to guide where we reduce staff and where we continue to resource. There is little point in having taken the time and effort, including detailed input from both professional officers, backbench members and the voluntary and community sector to then discard it entirely when it comes to budget setting time.

Secondly, and critically we must continue to find the scope to invest in the young potential. Selecting and recruiting the potential stars of tomorrow is much more than job creation. It is about sourcing top potential talent which will really add value in the short, medium and long term, helping deliver great outcomes for our residents and businesses. Cutting back on recruiting the stars of the future is truly a false economy, even in these harsh times.

Most FTSE100 style companies run Graduate Trainee Schemes. I was on one myself many years ago. It was

a great experience both for myself and my company. But it is important to stress that the stars of tomorrow won't just come from Universities, which is why we are also highly focused on championing apprenticeship programmes and trainee schemes across the Council.

This year, Buckinghamshire County Council has recruited 6 high calibre Graduate Trainees. Out of 156 applicants, we have chosen 6 who displayed the imagination, talent and enthusiasm we were looking for. The 6, all in their 20's, joined us in October on 2-year fixed contracts in an initiative placing the emphasis on project management skills that recognise the changing nature of local government.

The scheme will cost £300,000 over 2 years, but I believe investing in youth is worth every penny and is something that, quite frankly, other councils should be also doing. We will be rotating all of the trainees around the organisation to build their skills and experience. They have fixed term contracts, but the idea is that we want to retain this talent in the organisation. They will be free to apply for jobs at the end of the period, and will hopefully be employed on a permanent basis.

At Buckinghamshire we have a strategic vision of becoming a 'Commercial Council' focused on turning all our main services into virtual business units- each responsible for keeping a close eye on its costs and seeking out, where appropriate, new sources of revenue. The future shape programme will require new leaders who will discover new income streams for us, and work on practical ways to save money while retaining the core values of supporting our communities.

Crucially, we need to find and hire the innovators and free thinkers who will be able to run our councils in 10 to 20 years' time and who will have the experience and talent to find the necessary solutions to the similar, or even radically different financial crises they might experience then.

To those who say, 'well why not cut away and just recruit in from the private sector when you need people?' I would say 'yes' but only so far. All organisations need a good balance of internal expertise and fresh external perspectives. Again I have seen private companies go down this route. Only recruiting externally and facing disruption and setbacks due to culture clashes and lack of understanding of how to get things done. In reality, all organisations need to invest in the best and that 'best' should be a mix of both internally grown and externally sourced talent.

So in conclusion. Tough times? Absolutely. But that is not an excuse for random, ill-thought through 'salami slicing' and freezes. We must reduce our spending in a way that is both strategically thought through and sustainable. In particular we must continue to invest in bringing in and developing new talent. Leadership is about making the future happen and in Buckinghamshire, that's what we are determined to do. ■

Martin Tett
Leader
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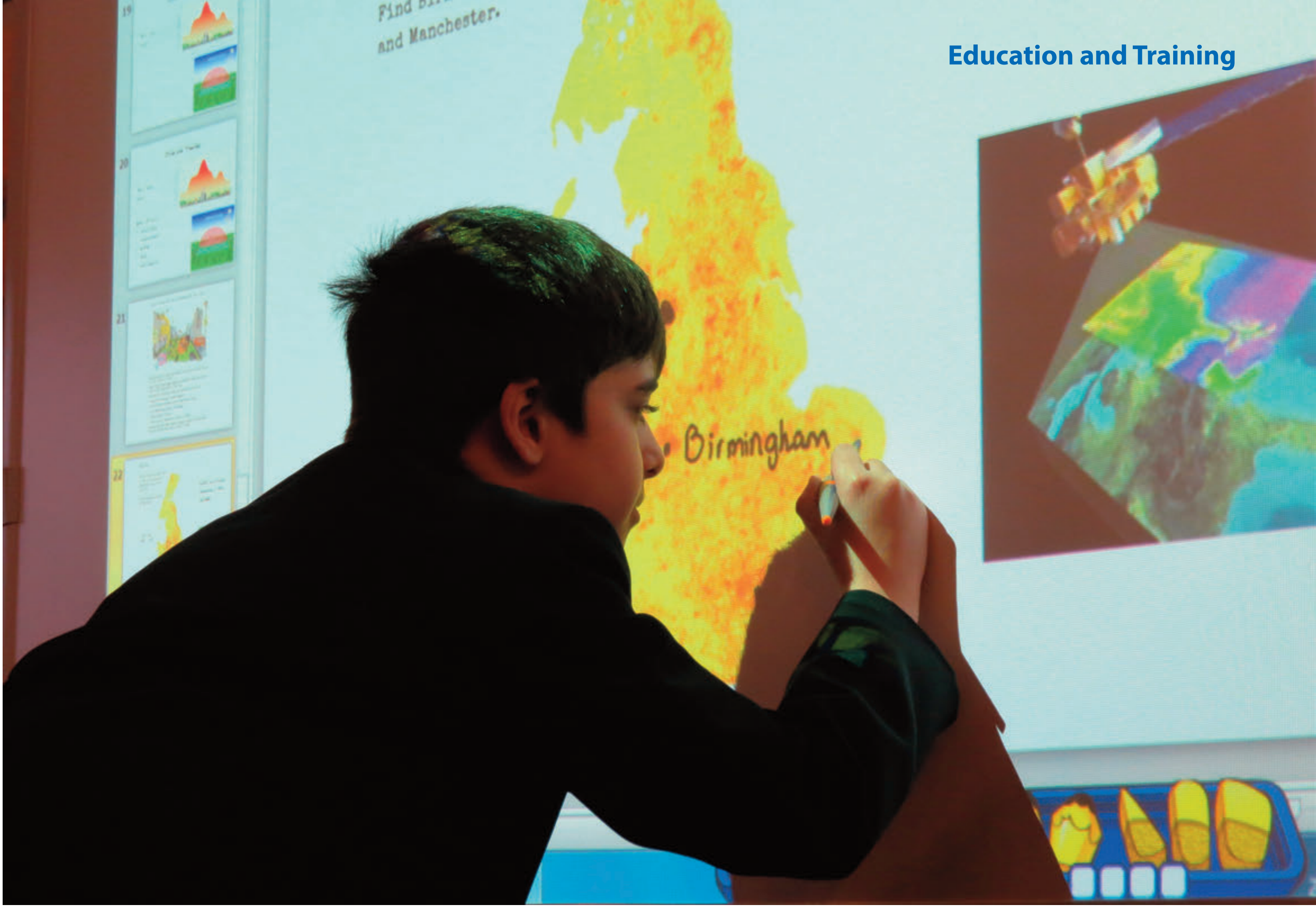
http://www.buckscc.gov.uk



Courtesy of The Blue Coat School, Birmingham

Data driven education

Han Pham, Intel Collaborative Research Institute for Sustainable Connected Cities explores how young digital citizenship can be taught…

Data is flowing into our cities, homes, and schools at an increasing rate. How can the UK help prepare our next generation of school children not only as future consumers of the digital data economy, but also its creators?

In a busy corner of a conference filled with 30,000 people, a young girl was exploring a new world. She raised her arms to the side and began flapping imaginary wings. Suddenly, she began experiencing London from an entirely new perspective. Laughing as she flew to her physical location, London's Excel Centre, she curiously circles intriguing markers on the augmented landscape – data feeds from live sensors from Project DISTANCE. Flying over these markers, she learned about real-time information such as the exact weather and air quality where she was physically standing. Clapping, her friends encouraged her to pose for a picture, as others – from children to adults – stood in line to explore London, and its data, made tangible.

The simulation, created by University College London's Center for Advanced Spatial Analysis (CASA), was part of the new educational possibilities presented by Project DISTANCE, which combines creativity and cutting-edge technology to innovate how we visualise and interact with cities at BETT 2014, the world's foremost educational technology event.

Project DISTANCE is a consortia focused on advancing education through new technology, and is funded by the Technology Strategy Board under their IoT Convergence programme. The project, led by industry and academic experts, leverages the emerging power of the next great Internet paradigm, known as the Internet of Things, to transform the way we discover and interact with the world – in this case, in education.

Started in summer 2013 as a pilot of 8 schools across the UK, including Alder Grange Community and Technology School (Lancashire), The Blue Coat School (Birmingham), Horringer Court Middle School (Suffolk), East Barnet School (London), Hayesfield Girls School (Bath), King's School (Peterborough), North Liverpool Academy (Liverpool) and Writhlington School (Northeast Somerset), the project is ready to scale – as evidenced by the diverse group crowding the aisles of the DISTANCE stand a few feet from the young girl flying over London.

This audience, which included students, teachers, technologists, intermediaries and government officials from over 100 countries, was busy exploring the possibilities DISTANCE presented.

While some flew over a virtual London, others explored the suite of new IOT hardware from ScienceScope, Open University and Intel, including the recently launched Galileo board, the first board based on Intel® architecture designed to be hardware and software pin-compatible with Arduino shields designed for the Uno R3 – the same technology behind the live sensors being discovered by the travelers of CASA's Pigeon SIM. Many, from teachers to representatives of educational ministries from around the world, navigated the open environmental data feeds from the schools around the UK hosted by Xively on http://IOTschool.org and discussed the possibilities of when they could begin teaching the associated OFSTED-ready curriculum created by the award-winning ExplorerHQ.

"DISTANCE is exciting in that it delivers end-to-end solutions," says Duncan Wilson, Intel Director at ICRI Cities in London, one of the partners behind creating DISTANCE. "But 2 of the main reasons behind its success is that it offers plug-and-play technologies as well as in service-based information, such as accompanying curriculum teachers can use immediately." The intuitive and immediate nature of both the technology – from hardware to software – and the learning activities – were consciously designed to help shift time away from setup to allow more time for higher-level learning activities in the classroom.

The project uses dynamic collaboration with teachers and students at its core – every element of the project was designed along with this audience, from the initial visioning workshops led by Stakeholder Design, to developing technologies suited to teachers' and student's interest in bringing the real world into their classrooms, to the in-situ fieldwork and feedback allowing rapid iteration of session plans, data visualisations and interactive platforms.

"Participatory design can lead to more appropriate technologies," said Greg Jackson, design technologist at Intel. "We wanted to change the cadence of a standard experiment in the field from a data gathering exercise to an exploration of information. Creating an ecosystem where environmental data is readily available provides a whole new learning experience, where you can dive directly into the data being generated. It allows for open discussion and discovery."

The project's end-to-end vision included design from the teachers themselves in creating and scaling new learning experiences in the classroom.

At a recent meeting, Simon Varley, deputy head teacher at Alder Grange Community and Technology School in Lancashire was co-creating new curriculum with Denis Hallam, deputy head teacher at East Barnet School across the country in London, interested in exploring the impact of both internal and external air quality on the school environment.

"We thought an interesting project might be to look at how CO_2 levels vary by hour, or even by minutes, which we can do with the quality of the sensors. What we have been doing is looking at it over a block of time, and compare how those CO_2 levels compare in our classroom with a similar sized classroom in East Barnet, which is a newer build school. How does the architectural design of a school influence on CO_2 levels and how can those levels can be reduced? How can plants influence CO_2 levels in both schools?," said Varley.

"We want to see how we can come to an understanding connecting with each other's data, along with other research available, in terms of how CO_2 can affect student performance down the line."

The approach is not only bringing the real world into the classroom, but is also helping to prepare the future answers to the world's most challenging problems. In another classroom at The Blue Coat School in Birmingham, Dr. Catherine Muller of the Birmingham Urban Climate Laboratory and Claire Andrews, Head of Geography at Blue Coat, are watching 15 primary school students exploring a complex phenomenon related to climate change and growing urban density called Urban Heat Islands. The students use a combination of technologies, from DISTANCE data feeds to Google Maps, to compare the differences between their relatively urban-based school with that of another DISTANCE founder school, Horringer Middle School, which is located in a more rural area by a variety of advanced activities, including measuring altitude and distance from the city centre, discussing fluctuations in temperature, as well as the heat-retentive qualities of modern materials used to build city buildings and roads. "They're learning the ideas behind how to design a climate-resilient city," suggests Muller.

Two weeks later, Andy Price, the Head of Science at Horringer Middle School, whose data interested the Blue Coat students, was readying an experiment to use his Air Quality sensor to allow his students to compare the conditions at their school against the local nature reserve. "It's nice to have a new way of looking at it and be at the leading edge of an idea," states Price.

The access to not only open environmental data, combined with a creative curriculum, offers educators and students an enriched classroom experience fueled by the values of data transparency and inclusion in the innovation of technology and their future cities.

DISTANCE is not only attracting interest from new local authorities within the UK interested in implementing an Internet of School Things infrastructure in their cities, the project has also attracted interest internationally, including a planned visit to Vietnam, and expansion possibilities in Europe and the Middle East.

Simon Varley of Alder Grange is already looking toward the future.

"Without the equipment that we've got here, we wouldn't be able to collaborate with other schools in a meaningful way. There's a whole range of opportunities that can grow and develop from a network of schools that can be involved, from examining CO_2 levels, to the catalogue of data that schools can have access to and look at over time about issues and information that can affect the quality of learning – from design of classrooms, motivations, student welfare – there's a raft of things that students can consider that can get them involved in a way that will enliven and engage them across the curriculum. That is a very positive spin-off we see that wouldn't be possible without this technology. It's an exciting opportunity to have, both with our school and across a network of schools, over time." ■

DISTANCE, a consortium founded to advance education through technology, includes Intel, Xively, Science Scope, Explorer HQ, Stakeholder Design, University of Birmingham's Urban Climate Laboratory, UCL Centre for Advanced Spatial Analysis, and The Open University. For information visit http://iotschool.org

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Investing in our youth

Adjacent Local Government sheds light on the European Youth Strategy and what role the Eastern Partnership Youth Window plays...

Young people are key for a successful future and economic development throughout any nation. Through its Youth Strategy 2010-18, the European Commission aims to provide better and equal opportunities for young people in education and in the job market; and, encourage young people to actively participate in society.

Almost 6 million people are unemployed in the EU, with around 2 million vacancies, and a third of employers report difficulties in recruiting staff with the skills they need. Unemployment is one of the key areas that the Commission believes is important to resolve, especially for young people.

The Commission understands that it is important to invest in young people in order to invest in our future development. At the forefront of their priorities they aim to boost skills, employability and the modernisation of education, training and youth systems, through a number of programmes.

One of these is the Erasmus+ initiative, which is a seven year scheme that will help support to study, train, and work or volunteer abroad for 4 million people. It has 3 main targets: two-thirds of the budget is allocated to learning opportunities abroad for individuals, within the EU and beyond: the remainder will support partnerships between educational institutions, youth organisations, businesses, local and regional authorities and NGO's, as well as reforms to modernise education and training and to promote innovation, entrepreneurship and employability.

Through the Erasmus+ programme, 2 million higher education students will be able to study or train abroad; 650,000 vocational students and apprentices will receive grants to study, train or work abroad; and, 125,000 schools, vocational education and training institutions, higher and adult education institutions, youth organisations and enterprises will receive funding to set up 25,000 'strategic partnerships' to promote the exchange of experience and links with the world of work.

Commissioner for Education, Culture, Multilingualism and Youth, Androulla Vassillou is supporting Erasmus+ and the importance of education and training.

"I am pleased that the European Parliament has adopted Erasmus+ and proud that we have been able to secure a 40% budget increase compared with the current programmes," she said.

"This demonstrates the EU's commitment to education and training. Erasmus+ will also contribute to the fight against youth unemployment by giving young people the opportunity to increase their knowledge and skills through experience abroad.

"As well as providing grants for individuals, Erasmus+ will support partnerships to help people make the transition from education to work, and reforms to modernise and improve the quality of education in Member States. This is crucial if we are to equip our young generation with the qualifications and skills they need to succeed in life," concludes Vassilliou.[1]

Along with Erasmus+ another programme that aims to support cooperation with Eastern Partnership countries in the field of youth, is The Eastern Partnership Youth Window. The programme had a total budget of €29m for 2012/2013 – €14m of which was dedicated for 2012 and €15m for 2013.

Launched in 2009, the programme's main aim was to bring Eastern European countries closer to the EU through political and economic integration. In total more than 1,400 projects will be financed involving around 21,000 young people and youth workers.

The Programme is supported through the EU Youth Action Programme, and will provide funds to promote cooperation opportunities among young people, youth workers and organisations from the European Union and the Eastern Partnerships countries.

Under the Eastern Partnership Youth Window, projects that seek support will need to meet a number of priorities, including:

- Demonstrating a clear commitment to provide support to young people with fewer opportunities living in rural or deprived urban areas;
- Raising awareness about the nature of youth work;
- Promoting the sharing of best practices in the sphere of youth work.

Speaking about the Partnership and the integral role it will play in supporting young people across the whole of Europe, Stefan Fule, Commissioner for Enlargement and the European Neighbourhood Policy said: "Young people are crucial for the harmonious development of inclusive societies and for successful future collaboration with our neighbours.

"For this reason we have approved this programme, to support young people – particular those with fewer opportunities – and their active participation in society."[2]

Through initiatives such as these the European Commission is committed to boosting education and training throughout Europe and give young people the best possible start in life they can. Programmes such as the Erasmus+ will help more than 4 million people to receive essential help to achieve employability and invest in potential leaders of the future. ■

[1] http://europa.eu/rapid/press-release_IP-13-1110_en.htm

[2] http://www.eurograduate.com/article.asp?id=4252&pid=1

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Faculty of Medicine in Hradec Králové

The oldest institution of higher education and rapidly developing scientific organization in East Bohemia Region

Faculty of Medicine in Hradec Králové was established as the first of the new medical faculties immediately after the end of World War II and became a part of Charles University in Prague. From the very beginning the Faculty closely collaborate with high-quality university hospital in Hradec Králové. All these facts lead to the creation of high-quality environment for the development of university education and excellent conditions for students, researchers and other partners in the field of science and research.

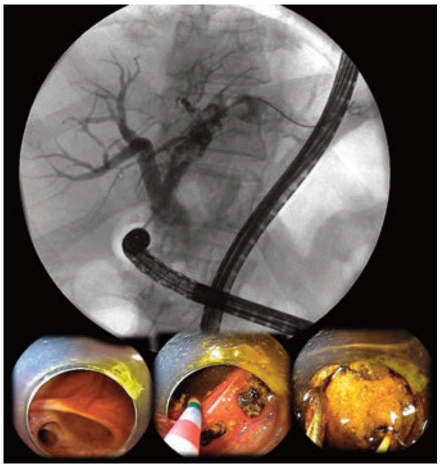
Faculty of Medicine provides a high standard of quality teaching in undergraduate and postgraduate studies. Learning is performed both in Czech and English and the achieved level of education is internationally recognised. Undergraduate education includes two master's degree programs: general medicine and dentistry.

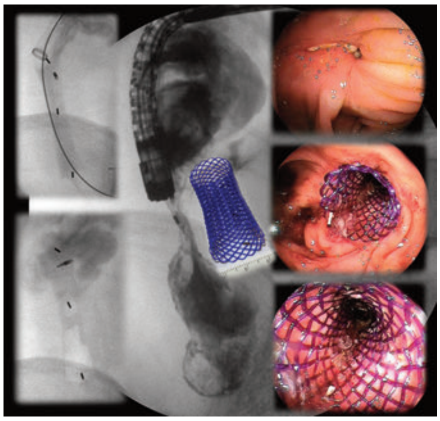
Postgraduate Education

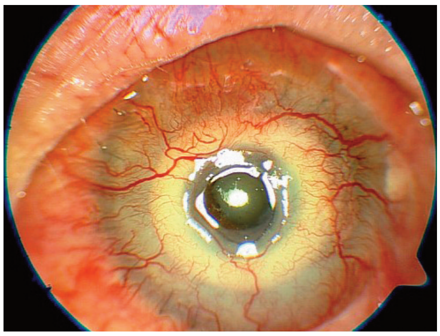
Faculty of Medicine in Hradec Králové puts a very high emphasis on the quality of postgraduate education. The PhD training covers the entire spectrum of theoretical, pre-clinical and clinical subjects. It takes place at more than 20 departments concentrated in the area of the original historical buildings and modern training center which is located in the area of University Hospital Hradec Králové. The innovative curriculum of the faculty emphasises modern teaching methods, a solid grounding in the sciences and regular clinical experience. Students become part of scientific research teams. Involved in organising and conducting their own research, present their results at international meetings and in internationally recognised scientific journals. These students attend international scientific internships during their studies. Likewise, Faculty of Medicine in Hradec Králové is the aim of scientific internships graduate students not only from the Czech Republic but also abroad. The development of international scientific cooperation and openness medical school to new projects, the intensity and importance of this cooperation increases. Every year, Faculty of Medicine in Hradec Králové organises international medical student postgraduate meeting. The conference is usually attended by winners of the national postgraduate meetings from European countries.

The main research areas at the Faculty of Medicine in Hradec Králové

The Faculty considers research to be one of the highest priorities of its activities.







According to data from government registries, Faculty of Medicine in Hradec Králové is among the most powerful scientific institutions in the country. Research is an integral part of the work at the medical school and is realised both at theoretical departments and clinical fields. It covers a wide spectrum from purely theoretical disciplines up to clinical disciplines. Many projects are conducted together with leading Czech and international scientific institutions. The research is focused on the most important prob-

lems of Czech and world medicine – aging population and the associated health complications leading to increase the number of patients suffering from lifestyle diseases and the need for rational use of funds to cover the health care.

The research focuses on 3 main areas of research in which the Faculty of Medicine in Hradec Králové long and successful tradition:

- Research in the field of lifestyle diseases affecting the two main systems: cardiovascular and gastrointestinal system. The research is focused mainly on the issue of coronary heart disease, heart failure, valvular diseases, arrhythmias, sudden cardiac death and identification of the risk markers, pharmacological and non-pharmacological treatment of the cardiovascular diseases including the invasive procedures and cardiosurgery. Second area is the area of the diseases affecting the digestive system. This area includes study of functional GI disorders, Helicobacter pylori infection, small intestine imaging, inflammatory bowel disorders, colorectal cancer screening, bio-degradable stents, electrogastrography, portal hypertension studies etc.

- Research in oncology and hemato-oncology. This area of the multidisciplinary research covers broad spectrum of the research activities, which include prediction study of the effect and toxicity of treatment, the importance of individual treatment dose regimen of drugs and prediction of response to these treatments. Considerable attention is paid to the study of the gastrointestinal cancer.

- Research of the aging and related health problems including studies of regeneration at different levels. Research focus on basic metabolic and molecular effects of aging and reparative and regenerative processes. This includes studying damage and repair at the DNA level, at the cellular and organ level, at the level of body (liver regeneration), including the possibility of influencing these processes (stem cells, iPS cells, the use of nanomaterials, etc.).

Currently, our preparations are underway for the involvement of Faculty of Medicine in Hradec Kralove to participate in a new projects it the frame of Horizon 2020.

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Cross-country education

Professor Rebecca Hughes, Director of International Higher Education at The British Council explains the benefits that international students bring to the UK and visa versa...

The excellence and global reputation of the UK's higher education sector is one of our country's greatest international assets. During the 1990s and 2000s, the consequences of the world's rapid population boom and economic liberalisation meant a huge growth in mobile students and the UK became, and remains the world's second largest host destination behind the USA. In 2011/12, 488,330 international students were recorded at UK HE institutions.

International students bring tangible and intangible benefits to the UK. The tangible are relatively easy to describe and the core value is economic. The Department for Innovation and Skills (BIS) estimated in 2013 that in higher education alone, international students contributed £10.2bn to the UK in tuition fees and living expenses.

There are also less tangible academic and cultural benefits that international students bring to the UK. These are harder to quantify but possibly even more valuable. A large research led university will generally have students from around 120 nations on campus at any given time. We encourage mobility of UK students, rightly, but need also to make full use of the internationalisation 'assets' and experiences we have right on our own doorstep. During their time of study, international students can contribute immensely in the classroom as they bring their diverse international experiences and contexts to bear on the points under discussion. Subjects benefit most from different intellectual approaches to scrutiny, and all students and researchers benefit from being able to critique an issue from several perspectives.

The UK's enviable reputation for teaching and learning attracts thousands of ambitious young people to share their lives and contribute to our communities both on and off campus.

The international student body in the UK helps to demonstrate the local and global connectedness and complexity that we are encountering in modern education.

International students also bring an immense legacy to the UK. Each year we have several hundreds of influential alumni returning home with a UK degree and strong association with a particular city and region. In my roles as an academic and a pro-vice-chancellor, I have hosted events, chatted with students, seen again and again how different generations of alumni will focus on the particular street, or pub, or hall of residence and share stories and memories that form a common bond across disciplines and age groups and a loyalty to the part of the country where they studied.

This brings a huge potential for international networking, trust, and goodwill. The British Council's 'Trust Pays' research shows that taking part in higher education here engenders greater trust in the UK than any comparable experience, and our 'Culture Means Business' research demonstrates how trust leads to trade. As universities, national education agencies, and businesses work together more closely this web of influence and trust will become more valuable and more visible.

However, the growth in international student numbers that characterised the last decade is now declining. Data suggests that the UK should still remain the world's second biggest host by 2024, but the internationalisation of UK higher education is far greater than simply attracting students.

Our own students must travel for study and work experience overseas for the UK's next generation to gain vital international skills and remain globally competitive. More UK students than ever now take part in an EU-wide Erasmus study programme since it first began 25 years ago – but that is only 14,607 – a huge imbalance compared to the numbers of students we welcome. We have to encourage our young people to look further to the emerging economies such as China and India and also help to promote the tangible gains of international experiences and new cultural encounters to them as individuals.

Growth in internationalisation can be measured in many ways through student flows, long term partnerships, trans-national delivery, and sustainable research collaborations. This is an area where the UK's institutions do well, but our sector, with support of government and industry must work hard to continue to be a partner of choice for ambitious emerging economies. In the 21st century higher education challenges are many and solutions must be shared, but the opportunities for growth – economic and personal, are almost limitless. Our student visitors to the UK are a key part of understanding the world and what the world would like to do with our industries, cultural organisations and businesses. Without them we would face our own form of 'brain drain'. ■

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The School of Education at the University of Iceland

Education for teachers

The School of Education at the University of Iceland educates teachers for all school levels and professionals in sports and health science, social education and leisure studies. The former Iceland University of Education, which merged with the University of Iceland in 2008, forms the core of the School of Education at the University of Iceland.

International and exchange students are welcome for study in special programmes offered by the School of Education.

Academic programmes at the School of Education prepare students for a wide range of professions and serve as a sound foundation for further studies. The programmes are closely linked to workplaces in the field and other educational and social service facilities. Study programmes are offered either on-site or as distance education.

A diverse body of research is carried out in affiliation with the School of Education for the purpose of creating new knowledge for the benefit of Icelandic society.

The Faculty of Sport, Leisure Studies and Social Education

The faculty offers academic programmes in Sport and Health Sciences, Leisure Studies and Social Education. The academic programmes are intended for students interested in working in the fields of sports and health, leisure or social education. Emphasis is placed on providing students with solid, scientific knowledge and professional training for their future workplaces.

Sports and health sciences are taught at Laugarvatn, the rural campus and cradle of sports sciences in Iceland, which boasts excellent facilities for academic study, outdoor activities, family life, research and teaching.

The faculty of Sport, Leisure Studies and Social Education offers leading programmes and the only opportunity for graduate study in these fields in Iceland. Graduates of the programmes can choose from a variety of workplaces in schools, sports clubs and centres, social services, leisure education and the health sector to name a few.

Teacher Education

The Faculty of Teacher Education offers diverse and challenging study options for prospective teachers at pre, primary and secondary school levels. Students study a number of subjects including education, human development, curriculum and instruction, psychology, sociology, philosophy and ethics. Leading specialists in the field of education are members of the faculty and students can choose from several areas of specialisation at both undergraduate and graduate levels.

Teacher education is a research-based professional study programme which works in close cooperation with preschools, primary, and secondary schools in the country. Selected 'partner schools' assist in providing students with teacher training and research opportunities. Studies in teacher education prepare students for the diverse challenges of the profession and their future role as specialists and leaders in schools and educational development in the nation.

The Faculty of Education Studies

The Faculty of Education Studies offers diverse undergraduate study programmes in education, as well as a new programme, International Studies in Education. In addition, the faculty offers a variety of professional programmes at the graduate level for teachers and school administrators at all school levels and research-based Masters and Doctoral programmes. The programmes focus on a number of subjects including education, human development, curriculum and instruction, psychology, sociology, philosophy and ethics.

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Building on local strengths

Nicola Walker, Director for Business Environment at CBI discusses how economic development is important to boost cities across the UK...

Public and private sectors have come together to breathe new life into areas such as Leeds, Aberdeen and Salford - now it is time to replicate that success across the country.

Walk down most high streets in the UK and you'll see that the internet has revolutionised the way we shop. Over 40,000 units now lie empty across the country and this figure is expected to rise by more than 10% in the next 5 years. And the growing burden of business rates is loading more pressure on our high streets when we should be reinvigorating them.

At the same time, we are facing a shortage of quality office space in city centres as the number of start-ups grows to nearly pre-recession levels, and firms want more energy-efficient spaces.

Our cities are ripe for new developments that can support modern working practices. The opportunity is there and the benefits are clear: in Leeds, £4.3bn of major development between 2003 and 2013 has boosted employment in professional services, and the city's earnings growth has outstripped the UK average over the past decade.

For some, regeneration is seen as something for the public sector to worry about. But given the pressures on our high streets, the dwindling supply of quality office space and the need to dramatically increase house building, it's a high priority for the businesses we speak to each week. With public budgets increasingly stretched, authorities can't afford to bankroll development projects as they might have in the past.

What we need is a new approach that is focused on local business strengths, built on strong partnerships between the public and private sectors and responsive to the local factors driving development in towns and cities across the UK. Our report, Locally Grown, makes the case for physical regeneration through a series of case studies that illustrate what can be possible.

In Camden, local leaders have put empty shops to good use as pop-up art galleries and creative spaces. Iconic projects like i54 South Staffordshire and Media City UK in Salford have successfully reinforced local sector strengths in automotive and creative industries.

In Aberdeen, they are now planning to build twice as many houses as at the peak of the market in 2007, and the building programme in Milton Keynes has kept housing affordable even though its population has grown faster than any other city. We need more local authorities to follow these examples, so that people are able to move where the jobs are.

With further City Deals in the pipeline and the prospect of devolved budgets through Lord Heseltine's idea of a "single pot", the incentives for local leaders to set out ambitious economic strategies are growing. It's essential that the public and private sectors work together to ensure this opportunity is not squandered.

We now want to explore how we can replicate the individual successes in our report more widely across the UK. We want to understand where the public and private sectors have forged successful partnerships to deliver regeneration and how this can be scaled up. ■

Nicola Walker
Director for Business Environment
CBI
www.cbi.org.uk

Local city – national growth

Adjacent Local Government highlights what Exeter and Devon are achieving in terms of economic growth...

Economic growth in local cities can be boosted through a number of avenues including regeneration, construction of houses, creating jobs and new local businesses. The UK government is committed to ensuring local communities are taking the right measures to contribute to the nation's economy and ensure their cities are thriving.

The coalition government is keen to boost growth within local cities by supporting investment in affordable housing, regeneration and infrastructure. New major infrastructure projects are an excellent source of income for local communities due to the high number of job opportunities created.

Areas that have seen a great deal of economic success include Exeter and Devon. There are a number of plans in place to ensure economic development is achieved, through new affordable housing, regeneration and enterprise zones.

In May 2013 Department for Communities and Local Government (DCLG) announced funding to develop a new Devon community that would create thousands of jobs. Over 15 years the development will generate £1bn of construction investment and inject a further £2bn into the local area.

Speaking about the investment, Former Housing Minister Mark Prisk said that the government is determined to get Britain building again.

"Sherford is the fourth site to receive support, and brings the total number of homes unlocked through the large sites programme to 41,000," said Prisk. "Our intervention will also create thousands of jobs and inject billions of pounds of investment into the local economy."

Investments such as the development at Sherford will bring much needed housing into the area, along with jobs. The Sherford intervention builds on the deals made for a 6,300 homes site at Cranbrook near Exeter.

"We have set aside considerable funding to assist large housing programmes like Sherford, and over the coming months we will continue looking at other schemes that would benefit from our support – that means more investment, more jobs for our young people and more affordable homes across the country," added Prisk.

Devon was also one of 20 coastal communities that benefitted from a share of £2.6m announced by Communities Secretary Eric Pickles in 2013 to help regenerate UK's coastal towns, and bring further growth.

In February last year, the government also announced £59m worth of investment for Enterprise Zones to help drive growth across the country, as part of the government's economic growth strategy.

"Economic growth is this government's biggest priority and Enterprise Zones are the engine room of that strategy. They are a fantastic way to attract the jobs and business investment that local areas need. The new £59m fund will turbo charge that engine by turning shovel ready sites into job related sites."

Local growth has never been more important, especially in the current economic climate. Areas such as Exeter are trying to buck the trend and prove they can play a key part in economic performance and national recovery. ■

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Smart specialisation in the South West

Driving significant economic growth

Cities and the wider economies they influence are engines of growth critical to economic performance and national recovery in the current climate. The large conurbations naturally make the headlines as the 'core' cities receiving support towards economic development, but there are smaller cities which are comparatively and proportionately for their size, punching 'well above their weight' where people work, trade and innovate in exciting organisations directly driving significant economic growth.

They are true exponents of 'smart specialisation', one of the pillars of the European Commission's 'Europe 2020' strategy to deliver smart and sustainable growth. Focussing on selected assets and their strengths which produce much more valuable results, they have avoided the temptation of trying to appease everyone by spreading their attention and investment thinly over disparate activities.

I will refer here to the Exeter economy but there are others. It is a city economy that understands its position and is working to use that knowledge to set out its future, building its strength sustainably in a national and international context. When Exeter prospers the wider region certainly benefits as the travel to work area is extensive and well served by road, rail and air infrastructure. Its job creation in recent years has been above the national average whilst other larger centres were experiencing marked reductions in the same period.

The approach and leadership provided by the mature partnership between the private and public sectors in the city has been about genuine collaboration, innovation, pursuing quality not mediocrity and supporting the city's key assets. Most notable has been the growth and enhanced reputation of the University and the professional and business service sector, both critical to the diverse mix which puts the economy in a good position for the next set of developments. The University is high in the world rankings and consistently in the top 10 of various national rankings in the UK. It is engaged in a £380 million investment programme in its buildings and facilities with a focus on excellence in world class standings.

Exeter has seen a step change in its economic performance and is well placed to play an even more important role. It has demonstrated other key elements of smart specialisation, the importance of agility, an advantage of not being too big, and public and private partners agreeing and working to a clear, comprehensive, proactive and responsive plan with accountability and responsibility in place alongside frequent monitoring and risk mitigation. Strategic economic developments are being brought forward hand in hand with housing development which will deliver large scale and broad based growth making a meaningful contribution to rebalancing the economy. A new science park and other highly visible and accessible employment sites are ready, available and attracting new occupiers.

The economic strategy going forward for Exeter and its wider area of influence is to be even more focussed on the knowledge economy. It is in the knowledge economy in which the UK can differentiate itself within the realities of a global economy and it is in this area that Exeter holds a number of special assets – the University, the Met Office and some companies all have elements within them that may be considered world class. These organisations and their collaborations with others point to the focus needing to be on opportunities in the following sectors and also in the rich interrelationships between these sectors: Big Data, Climate Change, Health, Water, and Agri-tech. There are exciting inter-linkages across these fields which could provide applied solutions to and responses to market opportunities which are potentially most commercially relevant.

The overall development programme for the city's economy is geared to the creation of some 26,000 jobs over the next 12-15 years. A study undertaken last year concluded that the estimated investment in delivering all developments in the programme equates to more than £3.9 billion.

Have a look at what other people think at – http://tinyurl.com/p4wzlzu.

Unashamedly the message is – Invest in Exeter: Expect Success.

Exeter City Council

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Capacity building boost export

Hasse Karlsson chairman at the International Association of Trade Training Organisations (IATTO) explains how International Trade Management plays a key role in SME growth worldwide…

As the world becomes a global marketplace, small and medium sized (SMEs) companies are growing increasingly dependent on their ability to conduct business internationally. The growth of small and medium-sized companies is an issue of common concern worldwide, and of strategic importance to small and developing countries whose economies are largely export-dependent.

Attracting and retaining high-quality personnel will head the agenda for some time. The skill that will be at a premium is the knowledge of how to conduct business internationally. We have chosen to call this professional competence International Trade Management.

International Trade Management is a combination of the knowledge and the network needed to do business abroad. New professional groups are emerging in SMEs. Export assistants, export trainees and export managers with a university background – the next generation of small business leaders.

International Trade Management vs. Business Management

Traditional courses at universities and business schools focus primarily on business management, i.e. knowledge of how to manage business organised into different functions, e.g. marketing, finance, manufacturing, organisation and leadership. Knowledge of how to conduct international trade and how to create global networks of experts and customers is something quite different. This is what we call International Trade Management.

International Trade Management may be seen more as a form of professional knowledge – a tool – for the art of creating contacts and doing business, while business management is more about managing the organisation. In common to both disciplines are the company's vision, objectives and strategies.

The International Trade Management Model

International Trade Management is a combination of the knowledge and the network required to do business internationally. Quite simply, it is all about building up new knowledge and creating new networks, market by market. In the course of time, the network becomes the totally dominant source of competence. The important thing to know is: who can do what on every given occasion and where to obtain the latest information. The Internet and social media used as a source of information and a channel of personal communication with experts and customers abroad will take on a decisive role in this respect.

The knowledge may be divided into technical knowledge, i.e. knowledge of trends, markets, export strategies and international trade conditions and functional knowledge, i.e. how to go about process. Export sales training; communicate across culture, language and how to cope with change are examples of this type of knowledge.

This factual knowledge and the various skills, overall create a kind of stamp of international quality as to the ability to conduct international trade.

The international network comprises international colleagues, experts in international trade and customers. Network building is a precondition for international trade, and demands a high level of language skills, cultural understanding and social skills.

Successful network building will lead to new business, and is a prerequisite for good customer relationships.

Business management – A Global Executive MBA for SMEs

To create the next generation of managers for SMEs there is a call for a part-time global leadership program focusing on international trade, and a blend of face-to-face seminars taking place in different countries and on-line seminars. Bring in the best professors from prestigious business schools together with business people on each market.

Trade barriers for SME internationalisation

In spite of free trade agreements and the Single Market in Europe there are still barriers for SMEs to overcome to increase export:

- Lack of trade skills; one of the biggest obstacles is lack of personnel with the right trade skills. Many SMEs are situated in rural areas with an unknown name and brand while universities are situated in bigger cities. Therefore they have difficulties to attract talents. Very few providers are offering high quality trade training locally;

- Lack of international networks for trade; much of the trade training on offer today takes place within a single country and cannot offer an international network as part of the training programs. A global Alumni Network for life-long-learning, career- and business-development is needed;

- The knowledge-doing gap; According to an article in Harvard Business Review (February 2012), the knowledge-doing gap between universities and SMEs is another obstacle. Knowledge must be turned into action to be applicable in an SME; International trade training must take place in parallel with working in a company, to bridge the gap between universities and SMEs;

- The provider must be a training body with access to lecturers and export coaches with a background in international business – not a university. The provider must be measured by how they can contribute to increased export not only increased knowledge;

- Need for a global qualification system; the export profession is not yet recognised as such. A global professional designation is needed to give an identity and recognition to this knew professional group of export personnel that are emerging. The accreditation of trade training providers and a global certification of trade training programs will create transparency and give a quality stamp to a new profession.

There is also a need for a global qualification system for a Global Executive MBA for SMEs to overcome the existing barriers.

Conclusion

According to the EIM Pantela "Opportunities for the internationalisation of SMEs" report in May 2011 capacity building is the most important measure to increase export. The message is clear: government's needs to put international trade training on the agenda to overcome barriers and increase export in SMEs. ■

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A reformed opinion

The Pensions Regulator gives thought on the pension reforms and how they will impact public services pension schemes...

The Pensions Regulator was given an expanded role in the Public Service Pensions Act 2013 in respect of the governance and administration of public service schemes.

From April 2015, the regulator will set standards of practice in this area for the Local Government, NHS, Teachers, Civil Service, Armed Forces, Police, Firefighters and Judicial pension schemes. Between them these schemes represent around 12 million members and more than 22,000 employers.

The Public Service Pensions Act 2013 followed a report by the Independent Public Service Pensions Commission in 2011, which made recommendations aimed at ensuring that public service pensions would be sustainable and affordable in the future, while also providing an adequate level of retirement income for members.

The reforms are intended to reduce and control scheme costs and each scheme is being redesigned with this aim. The 2013 Act provides for clearer governance with specific defined roles, the provision of benefit information on a consistent basis, and administration practices that are broadly in line with those in the private sector.

Good governance and administration: consultation launched

The Pensions Regulator recently published for consultation a draft code of practice providing practical guidance to help public service pension schemes to meet the governance and administration requirements that are set out in legislation.

The size and number of memberships of many public service schemes means they can face many challenges including maintaining high quality data and records. Good governance and administration should improve the efficiency of public service schemes and will result in them being more cost effective for employers, including the government departments which are responsible for the schemes.

The draft code sets out practical guidance, the underpinning legal requirements and standards of conduct and practice for scheme managers and pension boards in four core areas of scheme governance and administration.

'Governing your scheme' covers areas such as knowledge and understanding required of pension board members, conflicts of interest, and information that must be published about schemes. 'Managing risks' outlines the requirement for scheme managers to establish and operate adequate internal controls. 'Administering your scheme' covers scheme record-keeping, maintaining contributions and information that must be provided to members, and 'Resolving issues' includes information on internal dispute resolution arrangements and whistle-blowing.

The regulator is also consulting on a draft regulatory strategy, which describes that it will educate and enable those involved in governing and running public service schemes to assist them in complying with the law and meeting the standards of practice outlined in the code. The draft strategy goes on to explain that, where necessary, the regulator will be able to take enforcement action to ensure the underlying legal requirements are adhered to.

To implement the strategy, the regulator will work to understand the risks across public service schemes, develop and communicate policies which set out good outcomes and what schemes should do, and determine how best it can use its regulatory tools to mitigate any risks.

Next steps

The schemes concerned are currently concentrating on the benefit redesign element of the reforms and the regulator is engaged with them on the administrative requirements and the new governance arrangements.

We will continue to engage with the schemes and other interested parties to understand them and their issues better, and as we near April 2015 we will be building our regulatory team. We plan to survey and report on the progress of public service schemes each year.

The consultation runs until 17 February and it is anticipated that the final code of practice will be laid before Parliament in the autumn of 2014. ■

The Pensions Regulator
www.thepensionsregulator.gov.uk

Reforming the LGPS

Tony Hall, Journalist outlines changes to the Local Government Pension Scheme (LGPS) and how this affects the Avon and Cornwall pension schemes...

Changes to the Local Government Pension Scheme (LGPS) which are due to be introduced from 1 April this year will fundamentally restructure the ways in which its 4.6 million members will save for their futures. Although the reforms are being centrally driven by government, the delivery of what is now known as LGPS 2014 will be achieved regionally by administrators within local authorities acting with the support of stakeholders including unions and employers.

Arriving at this consensus, although it has taken over 2 years to achieve, has been a basic tenet of the reform process from the beginning. The idea of reform by consent was established by the Independent Public Service Pensions Commission, chaired by Lord Hutton which published its final recommendations (the Hutton Report) in March 2011, and on which the Government set out it's proposals for a comprehensive overhaul of public sector pension provision the following November. [1]

The Government's primary objective, set out in the 2010 Spending Review, was fiscal: to make £2.8bn in savings in public sector pension schemes by April 2015, including a £900m saving in the LGPS. The Hutton Report took a broader view, addressing issues of increased longevity, unequal treatment of members within the same profession, as well as the unfair sharing of costs between employee, employer, and taxpayers. In his Foreword to the Report, Lord Hutton said that he believed it would be possible to balance taxpayer's legitimate concerns about present and future costs of pension benefits with continued access by public sector employees, "to good quality, sustainable and fairer defined benefit pension schemes."

Reform, "must not simply become a race to the bottom" Hutton said. "Establishing a relationship of trust and confidence," would be very important, with a process of dialogue, "fundamental to build consensus over long term pension reform in the public sector." How people are treated in this process, he stressed, "will be as important as the changes to the pension schemes themselves."

Bringing Hutton's recommendations to the heart of its policy, the Department of Communities and Local Government (DCLG) began a LGPS consultation process in the summer of 2011. It established a Project Board consisting of employers, represented by the Local Government Association (LGA), trade unions, including UNISON, GMB and Unite, and government representatives in order to begin a process of negotiations.

It was at this point that administrators from regional pension funds began to actively participate. Their involvement through the LGA was vital because of the defining characteristics of the LGPS. It is a scheme supported by investments and assets administered by the regional funds, which also act to distribute pensions across the UK, because the LGPS administration is based on where members worked, or where they paid into the fund. Not where they live. For those reasons the views of the regional funds were essential to a successful delivery of the new scheme.

In the South West, the Avon Pension Fund and the Cornwall Pension Fund both became involved in the consultations. The differences between the 2 funds in scales of operation, and amount of assets held highlighted the fact that while the scheme itself has to be uniform, the structure of LGPS administration across the country is not.

Avon for example, while administered by Bath and North East Somerset Council also works on behalf of three other unitary authorities: Bristol City Council, South Gloucestershire Council, and North Somerset Council. The approximate value of the fund in 2012/13 is £2,766m. It serves over 89,000, active, retired and deferred members, has 33,648 employees enrolled and currently represents 174 employer organisations – an increase from 66 in just 6 years. [2]

The Cornwall Fund in comparison administers the scheme within the county alone. According to fund's annual report, in 2013 it had 26,600 pensioners (active and deferred), and served 97 employers and just over 15,300 contributing employees. It held assets of approximately £1,400 million. [3]

The LGPS 2014 consultation and negotiation process came to successful conclusion in May 2012, with proposals being accepted by up 93% of employers and over 80% of UNISON, GMB and Unite union members. [4]

The changes agreed include a move from a final salary to a career average scheme; an accrual rate of 1/49th of pensionable yearly earnings; a revaluation of active members' benefits with the Consumer Prices Index; and the introduction of a new lower cost savings option allowing 50% benefits on 50% contribution rate.

While agreement was reached at national level, communicating the changes to scheme members and applying them after April 1 remains a local responsibility, which is where the disparity in resources across the individual funds may actually have an impact on how LGPS 2014 is finally delivered.

The LGA has tried to assist with advice by issuing a series of communication plans to administrators and by releasing videos and leaflets [5]. Avon has been able to respond with plans for a series of pension clinics for members at all employer sites – including one-to-one consultations. Avon is also able to call on recent improvements in its use of technology in gathering employer and employee data, including self service web based systems, and a new payroll software package called i-Connect.

The Cornwall Fund on the other hand faces the introduction of LGPS 2014 with fewer resources, and the need for rapid new investment. As its 2012/13 annual report acknowledges, while "communications issues around this new scheme will be important to both employees and employers," it continues, "Our computer administration software system will also need to be updated to process the new benefit calculations and the pension team administrators will need to be fully trained on the new rules and computer systems".

Despite consensus nationally, it is the ability to deliver LGPS 2014 locally that in the end will prove decisive. Without sufficient resources the individual funds will not be able to efficiently deliver the new scheme, and Hutton's wish for a relationship of trust and confidence may be put in jeopardy. ■

[1] www.gov.uk/government/uploads/system/uploads/attachment_data/file/207720/hutton_final_100311.pdf

[2] www.avonpensionfund.org.uk/default.htm

[3] www.cornwall.gov.uk/default.aspx?page=23221

[4] www.lgps.org.uk/lge/aio/18539108

[5] http://www.local.gov.uk/documents/10180/11975/workforce-pensions.+communications+Plan+LGPS+2014+-+V5+Jan+2014.pdf/abe3e4f2-6d66-48bf-915c-a5ed0f6

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Investing in infrastructure: A compelling opportunity

Infrastructure investing is gathering widening appeal and with a growing level of interest it appears to be here to stay. Martin Lennon, Head of Infracapital, M&G's infrastructure equity investment platform, tells us what investing in infrastructure can do for a pension funds' portfolio.

Infracapital is a leading European infrastructure investor with over £1.7 billion of funds under management. The team is focussed on creating long term value for its investors through the acquisition and active management of a diversified portfolio of core infrastructure businesses across Europe. Infracapital is the infrastructure equity investment arm of M&G investments, Prudential Plc's European investment manager.

Infrastructure is receiving a lot of coverage, but what does Infracapital define as infrastructure?

We focus on core infrastructure, which most would tend to agree covers utilities, essential transport assets such as airports and ports, and social infrastructure. The key ingredient is that you typically have steady, predictable, long term revenues. Generally you have a physical asset that's an essential part of society, such as a hospital or a utility, which has significant barriers to entry providing structural protections against competitors and hence a significant degree of earnings visibility. Revenues are frequently underpinned by specific regulation or concessions with pricing adjustment mechanisms that give stable, inflation linked returns.

What are the main drivers for investing in infrastructure?

The need for infrastructure investment is extraordinarily compelling, without it mature economies grow increasingly inefficient and uncompetitive and emerging economies struggle to emerge. The scale of the investment needed is phenomenal and the public purse simply will not, and to a certain extent cannot, meet the investment levels required. This all adds up to an attractive scenario for private investment in infrastructure.

With a focus on core infrastructure and correct investment structuring, these investments can offer institutional investors the long dated predictable earnings required to match their long term liabilities to policyholders.

And why invest with an infrastructure fund?

Infrastructure funds have real expertise in executing deals and a hands-on approach to managing these investments which is required for successful infrastructure investing. They can also offer a diversified portfolio of investments that provides investors both yield and capital growth. The combination of investments across different sectors – some that can be high growth such as our ports business (ABP) with steady, predictable companies like Kelda Group (a regulated water utility) provides diversification as well as good mix of both income and capital returns.

How do you find the right companies to invest in?

Finding the right companies to invest in necessitates a strong pipeline of opportunities to allow the fund manager to be able to be selective in the opportunities it pursues. We are very proactive in meeting with corporates across different sectors to discuss their strategies to help us understand where the short to medium term investment opportunities will be. This does require an extensive network of relationships and a strong reputation so that you are approached on opportunities. Being part of the Prudential, one of the largest lenders to infrastructure companies and utilities across Europe, and having an experienced team with a mix of European nationalities to access our target markets, generates a strong set of opportunities for Infracapital.

Once a company has been bought, what happens to it?

While buying well is important, so is the ongoing asset management. It is increasingly becoming recognised that these are proper businesses with a lot of customer interface where you can make real improvements. Infracapital has a dedicated team of asset managers who come from operational business backgrounds and take a very active approach in running the portfolio companies.

We work closely with management to support them in delivering against our strategy, driving best practices and creating efficiencies to enhance performance and value. It's a delicate balance to ensure the management feels in control of the company but is also aligned to the long term goals and strategies of Infracapital.

What do you think makes a good manager?

My advice to anyone looking at making an allocation to the sector, would be to look at five things:

People – A full spectrum of skills is essential to be able to originate and execute deals and then manage the assets well. I have been in the infrastructure sector for over two decades and the team has over 240 years of infrastructure experience, with a diverse mix of skill sets, from commercial transaction experience to managing businesses.

Track record – The manager needs to be able to demonstrate experience in executing all types of deals, and success in managing the assets as well.

Access to deal flow – A strong pipeline enables a firm to be highly selective in the opportunities that it pursues. A strong network of industry contacts and reputation tends to be key.

Ability to manage well – A hands-on, operational strategy will help to enhance yield and value while mitigating investment risk. A dedicated asset management team with extensive operational and commercial experience is therefore essential.

Alignment of interest – It is important that the fund is managed by a team who has full control over all investment decisions and whose long-term incentive compensation is solely based on the performance of investments.

What are the biggest risks in infrastructure investing?

Regulation is one of the big issues. As infrastructure sectors go through regulatory reviews it can significantly enhance or reduce your return so it is a risk. It's a double-edged sword because these are essential assets, which is positive but it also means that you have to care about the customer and you should be cognisant of the general environment. There is pressure on the purse and you need to be mindful of that.

What do you think about some of the larger pension funds choosing to invest directly in infra themselves?

I think that it is completely rational for large institutions making significant allocations to infrastructure to consider a direct approach. However, as infrastructure investing is a complex and resource intensive activity a direct approach demands the creation of a well resourced, experienced (and expensive) in-house team not only able to source and make investments but also to manage them on an on-going basis to successfully deliver such a strategy and for anyone other than the largest institutions this just isn't a viable option. For this reason, I think the market will continue to develop with infrastructure funds playing a significant part.

Is infrastructure just another trend asset class?

I firmly believe the infrastructure asset class is very much here to stay. We see an increasing amount of investment opportunity in the years to come, and a continuing and growing appetite from investors.

Whilst infrastructure can legitimately be called a relatively new asset class, it has already demonstrated continued growth not only through the bull market preceding the global financial crisis, but in the more challenging environment since. Further evidence can be pointed to by the investment into dedicated infrastructure resources that an increasing number of investors are making, and the increased allocations that support such investment. Furthermore the capital that is being committed is in large part long-term capital.

Infracapital

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What treasurers can do to enhance yield

Enhancing the capacity for income growth

Government bond yields may have moved marginally higher in 2013, but many of the challenges facing local authority treasurers at the start of this year are the same as they were 12 months previously: interest rates are low and likely to remain so across all major developed markets; the banking sector has made steps to improve, but insecurities remain; while lack of liquidity in some parts of the fixed income market is an ongoing problem.

Equally, while the economic climate is improving, significant risks in the banking sector still remain. The latest quarterly report by the European Banking Authority identified improvements in market confidence, funding and capital positions, but cautioned about ongoing uncertainties on asset valuations and future profitability in a fragile economic environment. The report also drew attention to the risks of 'detrimental business practices' as scandals continue to hit parts of the banking sector. Counterparty risk remains a concern.

In this environment, treasurers must balance the management of liquidity and counterparty risk adequately, while ensuring that cash holdings are not idle, income is maximised where possible and capital is secure.

The immediate aftermath of the Icelandic banking crisis saw a substantial narrowing of Treasury Management Strategies (TMS) and huge inflows into the Debt Management Office (DMO). Several years on and now, many local authorities' Annual Investment Strategy have widened in scope to include not only money market funds but also enhanced cash and short-dated bond funds. While money market funds provide daily liquidity and preservation of capital, treasurers should consider enhanced cash and short-dated bond funds as a means to enhance yield incrementally.

The Royal London Cash Plus Fund, which carries a AAA Fitch rating, invests a significant portion of the fund in low risk, short-dated cash instruments and adds value through: strategic allocations to highly rated, short-dated corporate and supranational bonds; and very short term, small tactical positions in medium-dated (10-year) gilts, as and when our fund managers believe they offer sufficient risk/reward. Additionally, interest rate sensitivity is kept low through allocating to 3 month floating rate notes.

For treasurers willing to take greater credit and duration risk, RLAM offers a range of short duration funds: the Royal London Short Duration Gilt Fund, the Royal London Short Duration Credit Fund and the Royal London Short Duration Global Index Linked Fund. Each of these funds has core holdings of bonds with a maturity of 1-5 years and investors can select the type of strategic risk they want to take, either by isolating individual funds or combining two or more funds into an aggregate strategy.

Equally, RLAM's property fund offers treasurers a means to generate stronger income and participate in a recovering economic climate. With increasing interest in property it is timely for councils with longer term cash (3-5 years) to allocate to a regulated property fund in order to achieve higher yields and a greater income stream.

Across the board, RLAM's approach emphasises value. We need to be properly rewarded for every risk we take. We deal only with the highest quality cash counterparties. We want to create transparency and certainty for clients, striving to balance capital preservation with the capacity for income growth.

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Managing local investments

Mike Jensen, Chief Investment Officer at Lancashire Pension Fund gives an overview of the fund and the challenges they foresee...

The Local Government Pension Scheme (LGPS) plays a vital role within the public sector. In total there are around 99 regional pension funds that make up the UK's LGPS. Lancashire Pension Fund administers the pension fund for 120 employers in the Lancashire area, including; Lancashire County Council; Blackburn with Darwen Borough Council; Blackpool Borough Council and a number of higher and further education colleges and other scheduled and committed bodies. Here Mike Jensen, Chief Investment Officer at the Pension Fund explains to Editor Laura Evans key details about the fund.

How is the investment fund managed?

The investment fund has a standard governance structure, with a trustee board (the Pension Committee) made up of councillors from Lancashire County Council and other member councils, representatives from other employers – such as colleges and care organisations, and union representatives. The board meets quarterly and is responsible for administration, procurement and the broad investment and liability strategy.

An Investment Panel is made up of 2 officers, 2 independent advisors and the fund treasurer. Unanimous investment recommendations made by the Chief Investment Officer (CIO) and the two independents, and cleared by the compliance officer, are approved (or rejected) by the treasurer, as the Section 151 Officer for the Fund.

The portfolio management team, under the direction of the CIO manages 4 'buckets':

- Public Equity;
- Private Equity;
- Real Assets;
- Credit.

The fund uses combinations of external segregated fund management, listed or unlisted funds and direct investing.

We construct an overarching investment/asset allocation strategy triennially after the results of actuarial review and there are strategies for the individual buckets, for which Pension Committee review and approval is sought.

Asset allocation strategy takes the form of 3 ranges:

- Equities 40-60%
- Property 10-20%
- Lower Volatility 20-40%

How does the fund manage sustainable investments?

The Fund is active on governance issues through its membership of the Local Authority Pension Fund Forum (LAPFF). The Fund also uses the services of Pensions Investment Research Consultants (PIRC), which is a leading independent research and advisory consultancy providing services to institutional investors on corporate governance and corporate social responsibility.

As a long-term investor with extended holding periods for most, if not all of its assets, sustainability is high on our list of investment criteria.

How is risk managed within the fund?

Traditionally, local government pension schemes, advised by general consultants, have concentrated on asset side risks supposedly using the "efficient frontier" thesis and passive diversification within asset classes; making the assumption that as long-term immature funds we can smooth away risk.

We have taken a fresh look at diversification as the allocation shows and are well into a full liability analysis which will be followed by a risk management strategy (assisted by Mercers as actuary and Redington as ALM consultants).

We will utilise measures such as:

- VaR;
- DV01 risk;
- Contribution at risk (CaR);
- Required rate of return at Risk (RRaR);
- Custodial Risk measures.

We use these measures to assess and manage scheme risk using portfolios of interest/ inflation rate and index options, swaps and securities.

What types of investments are held and how are they managed?

After the creation of asset allocation and individual bucket strategies, there is a 3-stage investment decision process:

- Portfolio Managers (PM) request Investment Panel (IP) clearance to research a particular allocation;
- PM brings results to IP with a request for authority to undertake Due Diligence (DD) on particular allocation derived from the research;
- PM brings allocation recommendation to IP based on DD undertaken – if the Investment group on the IP (CIO +2 independents) agree unanimously and the recommendation is cleared by the compliance IP member, the Fund Treasurer can authorise (or not) the allocation.

How are assets allocated in order to reduce the reliance on more volatile assets such as equities?

In creating the main strategy we had 3 main themes:

- Globalise exposures;
- Reduce reliance on equity beta;
- Utilise the regulatory discomfort of other providers of long term capital.

An over-reliance on mainly passive UK equity beta (pre 2010 78%) was dealt with by new or increased allocations to:

- Infrastructure equity via funds and direct investment;
- Increased property allocation;
- Non-investment grade credit.

What long term investments is the fund including within the investment strategy?

We have sought illiquidity premium in:

- Credit – long dated property and infrastructure debt;
- Infrastructure equity – especially through direct investments;
- Direct and indirect property.

What does the fund see as challenges for 2014?

The 2013 actuarial valuation demonstrates how the fund is becoming more mature and that this trend will continue as Comprehensive Spending Round 2 begins to bite. As the funding position has improved, hedging liabilities has become cheaper and more in line with prudent management of the scheme.

Dealing with implementation and governance issues of our sector and novel hedging strategies in the Local Government Pension Fund sector will be challenging.

How will the fund be affected by the new consultation of LGPS for 2014 and how will you prepare for this?

Whilst agreeing that co-operative working in some areas is desirable for all LGPS and for smaller funds in particular, we believe that some of the base assumptions around the benefits of scale are shaky. A root and branch re-drafting of LGPS investment regulations, to create a “fit for purpose” investment landscape would have been a more effective and less potentially disruptive way of achieving many of the same aims.

We continue to leverage our in house team of investment professionals (drawn mainly from the private sector) and our specialist consultancy partners, in fee and cost negotiations, investment structuring, risk management: we will not be deflected by external “noise” from fulfilling our fiduciary duties. ■

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The Robeco approach to low-volatility investing

Balanced, innovative investments

Low-volatility investing is becoming more popular. Many institutional investors currently explicitly allocate a significant portion of their portfolio to low-volatility stocks. But what is the best approach? Get to know Robeco Conservative Equities strategies in just seven steps.

Robeco is a Dutch, Rotterdam-based asset manager with a history of low-volatility investing since 2006. As one of just a handful of low-volatility pioneers worldwide, it has played a major role in this field -for example, by writing many academic papers. The research-based approach resulted in an impressive number of new mandates, including Lancashire County Pension Fund.

1. Insight: risk and return do not go hand in hand

Robeco Conservative Equities strategies are based on a revolutionary insight: risk and return do not go hand in hand. The strategies capitalize on one of the oldest anomalies studied: the low-risk anomaly. Stocks with low beta and low volatility realize higher returns than can be explained using the Capital Asset Pricing Model (CAPM). This anomaly has been proven, not only in the United States, but also in Europe, Japan and emerging markets.

2. Unusual: lower absolute risk is part of the strategies

The unusual thing is that low absolute risk is the starting point of the strategy. The aim of this strategy is to realise equity returns with clearly lower downside risk. The result is better risk-adjusted returns. The Conservative approach does not look at relative risk, but at absolute downside risk. Average historical volatility is more than 20% lower than the reference index, the MSCI World. For institutional investors, such as pension funds, this lower downside risk is attractive because it can help stabilise funding ratios.

3. Trend-setting: contributor to low-volatility investing

Robeco is a trendsetter. Ten years ago few were interested in low-volatility investing, but now it is a widely accepted phenomenon. Indeed, many institutional investors currently explicitly allocate a significant portion of their portfolio to low-volatility stocks. As one of just a handful of low-volatility pioneers worldwide, Robeco has played a major role in this field – for example, by writing many academic papers on this topic.

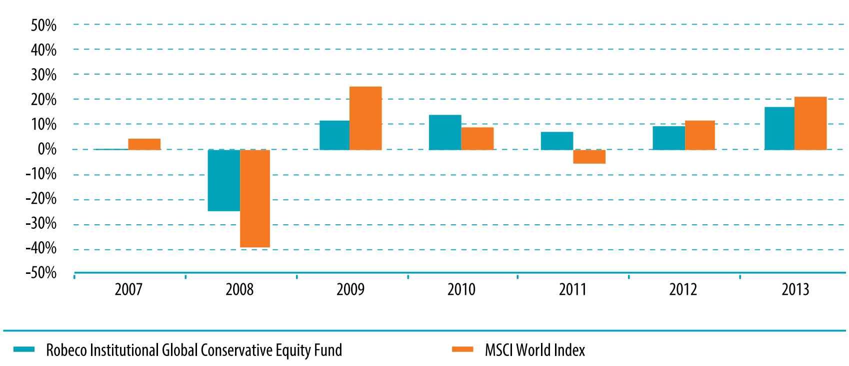
4. Balanced: innovative investment approach

Moreover, the strategy leads the market because our proprietary selection model is superior to generic low-volatility strategies. The selection is not only based on volatility, but also on low distress risks and valuation- and momentum-driven factors to enhance the risk-return profile. This balanced approach distinguishes us from other providers who only focus on historically low volatility.

5. Broad: experience with a range of funds

Robeco has plenty of experience with the Conservative Equity strategies. We have had many positive experiences with this form of cautious investment. With the launch of Robeco European Conservative Equities in 2007 and Robeco Emerging Conservative Equities in 2011, two new Conservative strategies were added to the range. All three strategies have been successful,

Performance 2007-2013



Source: Robeco Performance Measurement. Inception date October 2006. Gross of fees, based on net asset value of Robeco Institutional Global Conservative Equity Fund. The fund and reference indices are hedged for currency until June 30, 2012.
The value of your investments may fluctuate. Results obtained in the past are no guarantee for the future.

'Lower downsize risk can help stabilize funding ratios'

showing excess returns over their reference indices with substantially less risk (volatility). At the end of December 2013, the total assets in Robeco Conservative Equities amounted to £5bn.

6. Research: evidence-based investing

Our investment philosophy is based on an evidence-based approach, integrated risk management and prudence. We are building on a research heritage dating back to Robeco's first CEO Lodewijk Rauwenhoff in the 1930s, who said that "Every investment strategy must be research driven". Academic literature is often our starting point for research projects and we have also made contributions to the ongoing academic debate.

7. Returns: strong track-record since launch

The results of Robeco Institutional Global Conservative Equities have been strong since its launch on 28 September 2006. The bar chart shows that the strategy has performed very well, both in terms of returns and risk, and in relation to the MSCI World as its reference index. Measured from inception until the end of December 2013, the average annual net return of the strategy was 4.84%* (2.25% MSCI World) with an average annual volatility of 10.97% (15.96% MSCI World).

*The value of your investments may fluctuate. Past results are no guarantee of future performance.

Robeco at a glance

Robeco is an international asset manager founded in Rotterdam in 1929. The company offers investment solutions across a broad range of strategies, from equities to fixed income and alternative assets, in both developed and emerging markets, quant and fundamentally driven strategies, from low volatility up to high yield end beyond. The international institutional client base consists out of international parties in the corporate as well as in the public environment. The group is a global leader in sustainability investing, working closely with its specialist RobecoSAM business in Zurich to invest in the equities of the world's most sustainable companies, and in the bonds of sustainable governments.

Since 1994 Robeco's quant specialists have been successfully running rules-based portfolios. Our proprietary models leverage in-house research to exploit market inefficiencies in equities and fixed income markets. At the end of September 2013, Robeco had €197bn in assets under management and currently employs 1,400 people in 15 countries, with hubs in Rotterdam, Zurich, New York, Boston, Dubai, Mumbai, Sydney and Hong Kong. Since July 2013, Robeco has been part of the Japanese ORIX financial services group.

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Delivering efficiency – lowering costs

Adjacent Local Government details how the Crown Commercial Services (CCS) is having an impact on services within the public sector...

The government is committed to creating efficient and effective public services whilst ensuring savings are made. As well as improving the quality of commercial activity across the public sector, they aim to deliver value for money throughout the UK whilst keeping an outstanding quality of service.

The public sector is able to positively change the way services are operated by using procurement framework agreements. This enables relationships to be developed between providers and the private and third sector. Framework agreements are an excellent way to deliver a service in a cost-effective way. The Office of Government Commerce (OGC) defines a framework agreement as:

'an agreement or other arrangement between one or more contracting authorities and one or more economic operators which establishes the terms (in particular the terms as to price and, where appropriate, quantity) under which the economic operator will enter into one or more contracts with a contracting authority in the period during which the framework agreement applies.' [1]

These agreements are set up throughout the UK by government departments, local authorities, NHS Trusts, and between themselves and a private sector partner. There have been significant changes in the way procurement contracts are handled across the public sector in recent years, and the government aims to improve procurement and the way public services are delivered to ensure the lowest cost for taxpayers.

In a letter to the CBI, Francis Maude, Minister for the Cabinet Office said: "Hardworking taxpayers expect world-class public services, delivered in the most cost-effective way possible.

"Our procurement reforms are stripping out unnecessary bureaucracy to ensure SMEs can compete on equal terms with bigger players. We are already seeing a difference as our spend with SMEs is significantly higher now than it was in 2010. In the digital world, our recently-launched services framework contains 84% SMEs." [2]

Formally known as the Government Procurement Service (GPS), the Crown Commercial Service (CCS) was created in July 2013 by the Minister for the Cabinet Office, to act on behalf of the Crown and improve the quality of commercial and procurement activity across the public sector.

The CCS is an executive agency of the Cabinet Office and managed over £8bn of public sector spend in 2011-12. It plays a vital role in the delivery of centralised procurement strategy, providing sustainable savings for the taxpayer through centralised sourcing, category and data management.

As part of the procurement process, many public sector organisations keep lists – known as Approved Supplier Lists of potential suppliers for certain types of work, particularly low-value contracts.

The key vision of the CCS is to deliver value for the nation through outstanding commercial capability and customer service. Reforms within this area are integral to ensure the changing landscape is acknowledged and new structures including management are key to operating top class organisations within Whitehall.

Key objectives of the CCS are:

- Centrally manage the procurement of common good and services;
- Improve the management of common but complex procurements;
- Allow customers to focus on the commercial activity that is truly unique to them;
- Strengthen the procurement professional and improve commercial capability across government;
- Improve supplier and contract management across government;
- Work closely with the wider public sector to ensure that the benefits of aggregation and centralisation are shared across the public sector.

"Procurement reforms saved taxpayers £3.8bn last year and there's more to come," said Maude. "This year we have launched the Crown Commercial Service to bring together government's central commercial capability into a single organisation.

"This service will ensure we have more informed purchasing, intelligent supplier engagement, and smarter contract relationship management." [3]

Case Study – Estates Professional Services Framework

Committed to creating an effective and efficient government estate, the Estates Professional Services (EPS) framework agreement was created. The Government's vision is to create an efficient, fit-for-purpose and sustainable estate that delivers value for money and facilitates flexible working.

The framework covers a wide range of property-related services which will help public sector customers meet the many challenges they face. It runs for 4 years from April 2013 to April 2017 and is available to the majority of UK public sector bodies including central government departments, non-departmental public bodies, education, emergency services, defence, NHS bodies, local authorities and the voluntary sector.

The services covered within the framework will help public sector customers meet many challenges they face including: continuing to reduce the size of the estate; exiting inefficient leases and, reducing running costs.

An example of this is a contract with the Department for Education (DfE) under the Estates Professional Services. The successful supplier of the contract was GVA Grimley. Under the contract, by disposing of the majority of the ex-government Office Network accommodation and other surplus properties, the Department has managed to significantly reduce the cost of its estates since May 2010. [4]

Private sector partners such as GVA Grimley offer expert property services to government departments such as DWP, Ministry of Justice, HMRC and multiple local authorities.

Framework agreements and partnerships such as these are crucial for public services to be cost effective and deliver best practice customer services. ■

[1] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/62063/ogc-guidance-framework-agreements-sept08.pdf

[2] http://www.cbi.org.uk/about-the-cbi/business-voice/february-march-2014/francis-maude-letter/

[3] Ibid

[4] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/36419/2216060.pdf

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A portfolio for savings

A supporter of the Crown Commercial Service EPS framework

GVA is one of the leading providers of estates professional services to Central Government and the wider Public Sector. The firm is also a strategic partner on the Crown Commercial Service framework RM928 through which it has been appointment on multiple direct awards on a national basis. We're:

- Ranked No 1 (by fees) by the Estate Gazette within our peer group in advising Central Government departments backed by the Government Transparency Agenda; and

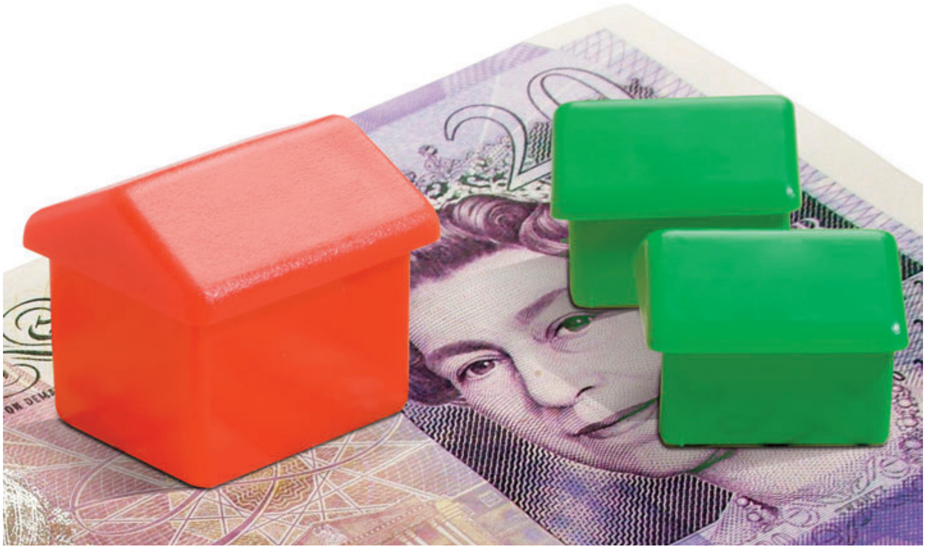
- Ranked No 1 for favourability and repeat business by Public Sector respondents to the Sharps Brand Acritas Survey.

GVA has 12 UK offices providing multi-disciplinary advice to the public and private sectors and our Client's include DIO, MoJ, DCLG, DfE, HM Land Registry and HMRC as well as Birmingham and Manchester City Councils and multiple London Boroughs amongst others.

At GVA our dedicated teams exploit options to enable property to contribute to business strategy. Savings here can have a direct impact on the bottom line and opportunities include:

1. Lease restructuring

Certain properties will be considered core to the business, even in a downturn. An early renewal should generate a rent free or capital contribution.



Maximising your Public Sector covenant that suits your operational needs can generate a positive result.

2. Break options

These can be a very cost effective way of reducing cash burn. However, plan early for them because many breaks have onerous conditions, and landlords might fight hard to frustrate you exercising your break options. A looming break option has a depressing effect on a landlord's investment value. If the premises are core, consider 'selling' the break to the landlord for a rent free period or cash contribution.

3. Lease expiry

Exiting on lease expiries is an extremely cost effective way of reducing cash burn, but, again, plan well in advance in order to reduce the operational impact on your business. Dilapidation claims should be strongly challenged.

4. Surplus or underused assets

An accurate portfolio assessment will also allow you to properly assess the merits of potential deals on surplus space; be that assignment, subletting or surrender.

Co-locating together can have a positive effect on the overall cost saving that can be achieved. MOTOs can help provide flexibility and certainty for all parties.

5. Assets sales

It's important to have a realistic expectation of price, and knowing the local markets is essential. It's also worth considering a revised planning zoning/consent to enhance value depending on how 'time critical' the generation of a capital receipt might be.

Always consider the long term impact of such activity against the short term benefits of cash injection.

6. Property cost audit

Many organisations do not have a clear overview of their property costs because payments come from different budgets but the core areas are:

Rates

Challenging the current assessment with a view to securing a rate refund and reduced future payments needs to be considered for every property, including checking transition relief calculations and other relief. Many occupiers employ GVA rating surveyors to negotiate reduced assessments and this is a great way of generating cash quickly at no net cost.

Forensic Rates Audit

Reviewing historic information and payments in a forensic manner can often yield discrepancies that can be discussed. GVA has saved over £500m.

Service charges

Thoroughly questioning budgets and reconciliations provided by landlords frequently yields cash savings. That should include revisiting historic service charges to check for errors which may lead to cash reimbursement.

Energy/utility use audits

Are your buildings and services running as efficiently as they should and are you paying the lowest price? Thinking, acting and 'going green' can and will save you money and minimise the impact of pending and future energy-related taxation/charging.

"GVA has 12 UK offices providing multi-disciplinary advice to the public and private sectors and our Client's include DIO, MoJ, DCLG, DfE, HM Land Registry and HMRC as well as Birmingham and Manchester City Councils and multiple London Boroughs amongst others."

Portfolio analysis and data management

Tactical decisions need to be informed by quality data and sound analysis of the relevant benefits when site by site tactics are being considered. Comprehensive property data is unfortunately often lacking. This forms the springboard for analysing the portfolio to identify savings.

Cost-in-use analysis

A relative comparison of each of your facilities will quickly highlight those that are most expensive on a price per head, price per unit of production or any other business metric relevant to your organisation. This will demonstrate where the greatest savings can be achieved.

Space utilisation audit

How efficiently you use your space – or remodel the business through any restructuring – will be key to freeing up more space for your own use (or that of the wider public sector) or for disposal. By clearly understanding your internal key drivers will either reduce your occupational running costs of generate a capital receipt for potential re-investment.

On the Crown Commercial Services framework RM928, GVA acts across all mandatory and non mandatory services without the need to sub contract. We are therefore able to provide a holistic and comprehensive service to existing and new clients particularly where GPU interaction is needed to reduce costs and further rationalise an estate to deliver efficiency savings and/or capital receipts.

For more information on how GVA can assist, please contact Nicholas Freeston (Nicholas.freeston@gva.co.uk or on 0121 609 8867) or Adam Williams (Adam.williams@gva.co.uk or on 0121 609 8809) within their Government and Public Sector Services Team.

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People, Place and Process

Matthew Hunt, Head of Corporate Facilities at Southwark Council gives an overview of cost effective estate procurement strategies within the council...

With 350 buildings delivering vital frontline services such as libraries, leisure centres and social care, Southwark Council has faced a significant challenge to ensure its accommodation is not only maintained and cost effective, but fit to deliver modern ways of working.

Although big now, in 2008 the inner city council's estate portfolio was significantly larger, with separate and often independent teams working in isolation across the borough in buildings unsuitable for their needs. From as early as the late 1990s, Southwark predicted that an estate of this size and condition was not sustainable with ever increasing pressure on budgets. Like many similar organisations, devolved building management arrangements, and a lack of consistent, targeted investment threatened to present an increasing financial liability over time and further deterioration to buildings and services.

The solution was clear – reduce the estate to make buildings more cost efficient and improve the councils working environment to support up to date, flexible facilities.

With strength of will and a political leap of faith, Southwark delivered a new headquarter building in Tooley Street in the north of the borough to house 2,400 staff as a base for all departments. The move kick-started the council's Modernise programme and coincided with a major shake up of the council's facilities management service. Tooley Street became the model of change and newly defined, modern ways of working.

The move to the new headquarters, completed in 2009 under a 25-year lease, and the associated property disposals and efficiencies realised £40m in savings. Further savings of over £1.5m per year would be

realised when, in November 2012, the building's owners put it up for sale and the council bought it. The sale meant the council was no longer paying rent, which would have undoubtedly gone up in future years, and is therefore expected to make savings of at least £68m over the next 20 years.

From full occupation of Tooley Street, the council has continued with its estates programme creating a new campus in the south of the borough of fully fitted out accommodation and a range of refurbishments to a significant number of buildings. The programme included 3 new central, energy efficient and up-to-date offices in Queens Road, Peckham, which currently house around 600 officers.

To meet the demands of this rapidly changing estate we have also had to take another look at our facilities management strategy. From an early stage it was clear that the pre-existing raft of FM related service providers of over 40 was inefficient, not cost effective and required a significant management overhead to manage. The aim was to reduce this number to low single figures through the bundling of services achieving single points of contact for service areas, reducing management layers on the supply side, and the benefits of economies of scale and a reducing management overhead.

The majority of the councils FM services e.g. cleaning and security had been outsourced some time ago. Across the estate there was a lack of joined up asset data and management information. To mitigate the risks of a 'knee jerk' outsourcing strategy it was decided to start with what we knew – the requirements for the main HQ in Tooley Street.

Following the successful procurement of a single supplier, hard and soft FM contract, and a full year in operation, the council is now rolling out this arrangement to up to 50 of its key operational buildings. By the end of 2014 all soft services and compliance for the remaining buildings will be incorporated in the main contract and there will be a new hard services contract for the wider estate based on similar specifications.

The service will deliver compliance based maintenance and quality soft services through modern, up to date output based service contracts. These have been procured as, and will be managed as forward thinking relationships aiming for innovation and continuous improvement to provide services at an economic cost, with the agility and flexibility to meet the evolving needs of the organisation.

So in terms of procurement the council will have moved from an unwieldy 40 facilities contracts to 2 co-terminus contracts. This means a measurable transfer of risk to the supply side at a known cost with full and transparent management information allowing and supporting delivery of the Modernise programme.

The work that has been put in now provides an opportunity for the council to become an informed client over the course of this contract term to make the really big procurement decisions for the arrangements in 6 years time, armed with a full understanding of what we need to buy for – what will be a much reduced and improved estate. ■

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The digital transformation

Maia Beresford, Researcher at the New Local Government Network (NLGN) discusses the government's 'Digital Strategy' and how local authorities should benefit...

In the UK 82% of adults are online. Today, the average household owns not just 1, but more than 3 types of internet enabled device, and 1 in 5 households own 6 or more. We buy our groceries and bank online, we use digital technology to share content and to work on the move.

In an attempt to harness the public's appetite for convenient digital services, and reap the substantial cost benefits from doing so, over a year ago the government published their Digital Strategy. This committed them to a programme of 'Digital by Default' across public services.

Since then the Government Digital Service (GDS), a special unit sitting in the Cabinet Office, has been busy driving change across central government: transforming exemplar services such as electoral registration, consolidating government websites to a single streamlined GOV.UK site, and working on procurement and digital inclusion. But what has the GDS meant for local government?

The establishment of the GDS has certainly been influential in raising the profile of 'digital by default' in local government. 'Channel shift' from face-to-face to online contacts is on the agenda for most councils, and is understandably viewed as a way to save money and improve services. Many local government websites have been transformed so that online transactions are centre stage: whilst not yet the norm, 'Pay it' 'Report it' and 'Apply for it' buttons are now increasingly common on their websites.

The GDS has also been important in sharing good practice and setting standards across the public sector. Their principal aim is to drive change in central government, but they do have a remit to share learning and collaborate with local bodies to encourage digital development across wider public services. In conjunction with DCLG, the GDS has run 'Really Useful Days' where GDS staff share learning with their local government colleagues. They have also published useful web content standards[1] and digital inclusion checklists[2] that are being picked up by local government[3].

But perhaps the biggest benefit of the GDS is that it has been stimulating debate about digital leadership across local government. Unlike all other departments, DCLG has never published their own departmental digital strategy, and there is no single cohesive 'engine room' driving digital transformation across England's councils. And in blog posts[4] across the web, digital leaders are now looking enviously to the GDS and asking why not.

This is unsurprising since whilst change is happening, the scale of transformation necessary for councils can seem overwhelming. They are not just dealing with transactional services, web content and digital inclusion, but with issues surrounding investment in smart city infrastructure, ICT architecture, mobile working, and integrated and open data. And they are dealing with these issues in isolation and with limited individual budgets. Furthermore, as NLGN's forthcoming research will show, they are facing stark challenges relating to local politics and risk appetite, and with deficiencies in leadership, strategy and in-house skills.

Networks such as Local Gov Digital, NESTA's Code for Europe and DCLG's Local Digital campaign are attempting to overcome some of these issues by sharing good practice, building and maintaining momentum, and growing skills in the sector. But these initiatives are piecemeal and insufficiently resourced.

Councils need buy-in from the top, a clear direction, more regional and sector-wide collaboration on contracting and skills development, and more support to leaders investing their time in digital development across the sector. NLGN's upcoming report attempts

to fill part of this gap by piecing together a roadmap for the sector. But councils and chief executives in particular have to step up to support their digital leaders and seize digital as an issue at the forefront of their agendas. Will your council be one to rise to the challenge?

NLGN's 'Shaping the Digital Agenda' inquiry is supported by O2 and is culminating in a report that will be launched on 20th March. ■

[1] https://www.gov.uk/design-principles/style-guide

[2] https://gds.blog.gov.uk/2014/01/13/a-checklist-for-digital-inclusion-if-we-do-these-things-were-doing-digital-inclusion/

[3] http://sites.idea.gov.uk/localgovdigital/work-streams/content-design-and-development/content-standards/

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Entering the digital age

Adjacent Local Government sheds light on the Government Digital Service (GDS) and what the Digital Strategy means for public services...

We live in an age where digitalisation is all around us – shopping online, banking, and even booking appointments online. In a world where technology such as the Iphone has become an essential in every day life, there are still many people who are yet to become internet savvy.

The Government Digital Service (GDS) was launched in 2011 in response to recommendations made by the then Digital Champion, Baroness Martha Lane Fox, in her report 'Directgov 2010 and beyond: revolution not evolution'. GDS is moving to a digital-by-default model for public services, in line with Martha Lane Fox's call to deliver "the absolutely best citizen experience".

In the first wave of digital transformation, the GDS is creating or redesigning 25 high volume key exemplars from across government as digital services; building and maintaining the consolidated GOV.UK website – which brings government services in one place; and, changing the way government procures IT to support digital services. [1]

The GDS is at the forefront of moving public services into the digital age and by doing so helping to reduce costs. This month the UK government were on course to deliver new online services that are better and more convenient for citizens and businesses. These online services will also save the taxpayer money and help Britain to compete in the global race.

Minister for the Cabinet Office, Francis Maude has always been committed to delivering simpler, clearer, and faster digital services.

"In just over 2 decades the internet has become a huge part of our everyday lives. Today 82% of adults in the UK are online," he said

"Completing transactions online has become second nature, with more and more of us going online for shopping, banking, and information and entertainment. Why? Because online services tend to be quicker, more convenient and cheaper to use." [2]

By digitalising public services, the GDS estimate the government is on track to make cumulative savings of £1.2bn in this Parliament. This Digital Strategy is not just encouraging more people to log on and become more digitally aware, but also saving money for the key people who use these services.

The Digital Strategy outlines how the government aims to make these savings by moving services from offline to digital channels. At the Sprint14 event in January, government departments showcased 5 digital services. One of the services included was how to register to vote online. This service affects 5 million people, and will move 46 million voters from household to individual registration.

Other services showcased at the event include: Applying for a Visa; viewing your driving record; allowing PAYE employees to manage their income tax records and information; and, prison visits.

The event marked the halfway mark into the 400 working days that the government set itself to put 25 significant public services online. The digital change is also one of the major contributions to reducing the deficit, explained Francis Maude.

"As the Chancellor highlighted recently, every part of the public sector will continue to need to face up to the challenge of reduced budgets for some time to come," he said.

"And we know much more money can be saved – staggering savings potentially – while actually improving quality online. Last year we saved the taxpayer over £500m by stopping projects not aligned to our IT spending control. Digitalising public services could save citizens, the Exchequer and businesses £1.2bn over the course of this parliament, rising to an estimated £1.7bn each year after 2015." [3]

The work the GDS is doing in terms of making services more accessible is bringing public services into a whole new world – making them available to users wherever they are, and at times convenient to them.

"The Government Digital Strategy is just the start of the process that will transform how we provide services," said Maude.

"New technology also means that for the first time individuals, entrepreneurs and businesses can now access and exploit data in a way that increases the accountability, drives choice and spurs innovation." [4]

The efforts made by government and the GDS are enormous in terms of making public services better and more efficient. Digitalisation not only creates a more customer friendly world, but also gives you more 'bang for your buck.' The government is achieving a great deal for taxpayers and, those bold ideas put forward when the GDS were created back in 2011 are now coming alive.

Executive Director of the Government Digital Service, Mike Bracken believes that Digital by default is becoming a reality right across government.

"A year ago we gave ourselves 400 days to transform 25 of the most significant services in government. Our strategy is delivery and, 200 days in, we're delivering. We have great services up and running, most in beta, some of it live.

"Departments are rapidly getting skills and resources they need to deliver digital services that rival the best in the world. We're making digital public services as easy and convenient as online banking or booking a ticket online." [5] ■

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[2] https://www.gov.uk/government/publications/government-digital-strategy/government-digital-strategy

[3] https://www.gov.uk/government/speeches/sprint-14-speech-by-francis-maude

[4] ibid

[5] ibid

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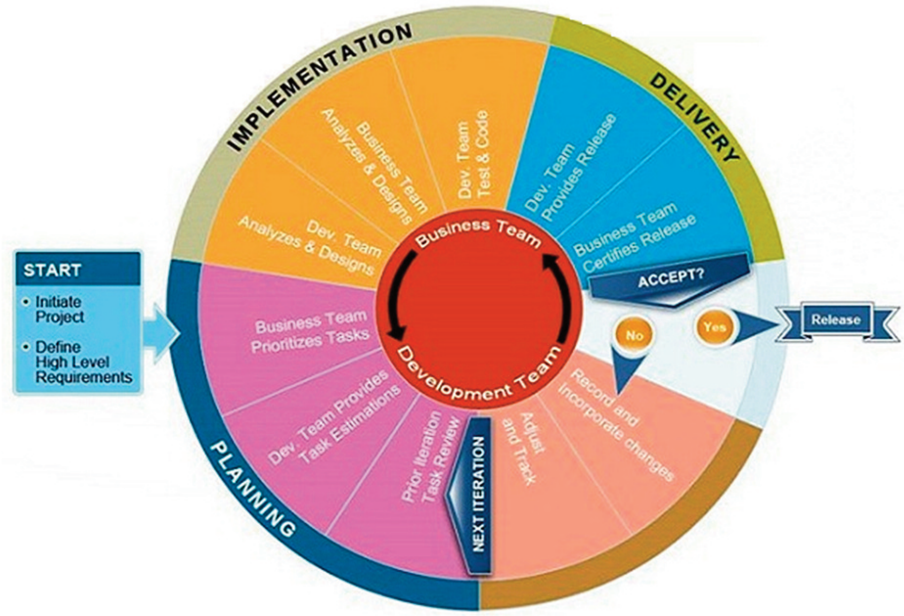
Specialised Consultancy firm for the DSF digital store

Bringing about a change to public services



Aryaa Associates Limited (AAL) is a specialist supplier on the Digital Services Store as a Digital Services Framework RM1043 (DSF) supplier. DSF has kicked off a major domino effect that will bring about a huge change not just to the procurement channels in the public sector but also the way software products, specifically cloud products, are packaged, bought, sold and serviced. This change will positively affect both the public sector buyers and the suppliers to this market. The DSF also facilitates a fair market engagement for the small specialist companies like ours who have a unique skill set to offer and are willing to engage directly with the public sector bodies, instead of the traditional route, embedding ourselves through layers of tiered supplier networks thereby increasing the cost of these specialist services.

AAL prides itself on our ability to provide specialist resources via our network of professional and highly skilled candidates from blue chip private sector, elite Universities, and proven Government specialists. As AAL is small, we are able to adopt pure Cloud computing and Agile management methods, we do not carry big overheads and therefore we are able to offer very attractive rates to our clients whilst assuring true Value for Money (VfM) from AAL engagement. We have worked with prestigious clients across the country and we are happy to provide testament to this through references. We remain software vendor agnostic to enable client requirement focus across a range of software technologies and benefit from being an approved Microsoft Accredited Partner. We remain abreast of developments in other parts of the globe as part of our global engagement.

At AAL, we focus on four major elements when it comes to providing a service to our clients which we can be proud of and are as follows:

- A high quality of skill set matched to demand, to optimise the project outcome;

- Security – leveraging current industry best practice and client capability;

- Value for Money tested and modeled commercial solutions allow for long term relationships and trust with our clients;

- Maintain a good brand image for AAL – Providing customer satisfaction by going the extra mile.

Innovation and Information Management

The current budgetary pressures within central and local government support advancement in Cloud technology. AAL believes that Cloud Solutions will promote, at pace across public sector, Innovation and Information Management that helps deliver high security, cheaper total cost of ownership (TCO), evergreen products and smarter lifecycle management.

Trends and strategies in the Cloud computing space

The AAL team has the benefit of working across various leading Cloud products for various organisations like Sky News, Fourth Hospitality, British Council, DFG International, Foreign Commonwealth Office Services and Financial Times. There is a growing trend towards the Cloud-computing sector and this has led to a shift in thinking with regard to the way software is now accessed, both in terms of use and also in the way it is developed, implemented and managed across its lifecycle.

It is AAL's belief that organisations that make the smart choice to experiment and evolve will stand the best chance of survival in the rapidly growing Cloud market. Current trends for success with Cloud products indicate a future focus on the following criteria:

Commoditisation

Commoditisation allows for repeatable building blocks of Cloud products and solutions, which when packaged by AAL is able to meet our clients specific needs through client focused solution optimisation. This covers four key business attributes:

- Lifecycle Service model (both internal and external factors);

- Flexible, holistic and evolving pricing;

- Improved functionality and Operational effectiveness;

- Commercial solutions that recognise our segmented client market.

AAL is proud to have supported the Foreign and Commonwealth Office Services with the design, development and commercialisation of their flagship Cloud product, PSN 360, which is a strong example of commoditisation in the public sector.

Business Intelligence and Data Mining

Offer better Business Intelligence through Data Mining dashboards

Client systems have access to vast amounts of data and in turn can inform decisions about how to prioritise improvements and highlight opportunities. AAL believes that Data Mining capability offers clients a level of transparency that allows for a strong level of trust and we thrive to believe this allows us to foster customer loyalty.

AAL's experience on the Fourth Hospitality's platform for the hospitality sector was invaluable in relation to the provision of business intelligence.

Agile is the only way to go

AAL has both a proven track record and rigorous experience in embedding Agile Project Management methodology and training our client teams. In its purest form, the "Agile approach" (of which GDS's Gov.uk site is a very good reference site), facilitates and allows for bespoke delivery and highly controlled and manageable change.

Key benefits of pure Agile methodology and AAL engagement:

- Detailed breakdown of the Clients Scope of Requirements, allowing for a more accurate estimation of risk, timescales, costs and obligations of the Client.

- Allowing the operational teams to take ownership of the work delivered, thereby reducing unnecessary governance and controls which can often lead to increased costs and non-value adding activity

- A controlled and collaborative approach to delivery.

- Client remains informed and aware of the projects status using purposeful reporting throughout the lifecycle.

- Client is at ease and can speak plain 'English' while the Technical team engages at an operational level and reports provide the governance and controlled assessment at a senior/director level which facilitates delivery and eradicates workarounds.

AAL is proud to promote its view that there is no "one size fits all" approach to scoping, designing and delivery Cloud solutions. AAL will consider each project on its merits, risks and challenges and ensure that we are able to offer proposals that meet the needs of each client specifically whilst using the economies of our knowledge and experience to offer a favourable and low risk procurement route for their Cloud requirements.

Aryaa Associates Limited

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Lahti is Serious about Getting Green

The city of Lahti has an ideal logistic location in the heart of Southern Finland. It is a city centre for an economic area encompassing over 200,000 people. During last two decades Lahti has evolved from an industrial town into a hub for jobs in the environmental sector and industrial design. The surrounding ridges and lake landscapes provide a natural and verdant living environment for its residents.

Committed to Change

The Lahti strategy defines the success factors that create a path to city's vision to be "a vital, attractive, and environment-oriented city". Lahti has been profiled as a Green City where the city-wide sustainable development is combined with shared targets, environmental expertise, co-operation and positioning in the core of cleantech business. The commitment to sustainability is underscored by the ambitious target to halve Lahti's CO_2 emissions from 1990 level by 2025.

Efficient and Unique Solutions

Lahti has been a pioneer in the development and use of technologies aimed at the utilisation of waste materials. Päijät-Häme Waste Disposal Ltd. handles approximately 200,000 tons of waste annually, and over 90 % of the waste received is reclaimed. The investment in sorting waste has culminated in the new CHP plant of Lahti Energy Ltd. that utilises the next-generation gasification technology to convert waste materials into heat and electricity. The greener local CHP production is the essential tool in the Lahti's climate change mitigation toolbox.

Sustainable Urban Living in Practice

Lahti uses different sustainable measures to make land use planning, buildings, transportation, purchases, and consumption more climate friendly. The city centre is undergoing brisk development, and several large sustainable housing areas will be built in the next few years. The role of cars is reduced by offering residents high-quality pedestrian and bicycle routes, and greener public transportation system. In Lahti the compact urban structure is integrated with the natural environment so that every city-dweller lives under 800 metres way from green recreational areas.

For more information:

Päijät-Häme Waste Disposal Ltd:
www.phj.fi/in-english
Lahti Energy Kymijärvi II power plant:
www.lahtigasification.com/
Lahti cleantech development:
www.ladec.fi/en

European Union
European Regional Development Fund
Leverage from the EU 2007–2013
GreenCity
www.greencity.fi

THE KEY TO COMMUNICATION IN RESEARCH AND SOCIETY

Innovative communication methods for people born both deaf and blind

In collaboration with the Kentalis Deafblindness Center of Excellence, seven PhD students from the University of Groningen, are attempting to create strategies and techniques to help people with congenital deafblindness to communicate at higher levels, by sharing experiences and emotions with their daily carers.

Our research group is concentrating on real life settings and examples to find the key for unlocking effective means of communicating for deafblind individuals.

To find out more, visit: **www.rug.nl/staff/h.j.m.janssen** and **www.kentalis.nl/deafblind**