

80%
of ethnic minorities are under 25

only 10% of the UK's energy is from renewable sources

Workplace Habitat 2013

a report into the changing
UK workplace, explored through
six key industries.

Two-thirds of tech companies can't find top
performing employees

More successful medicines are
created in UK R&D labs, than the
whole of Europe combined.

A graduate could now leave education with
a debt of
£53,400

Workplace Habitat 2013

orangebox

Welcome to **Workplace Habitat 2013**,
an 'under the skin' report into the current UK
workplace and six key industries that populate our nation

Researched, written, designed and produced by Nathan Hurley for
Orangebox, **the report delves deep into today's workspace to uncover
key issues shaping our working habitats.**

Emerging trends of our working
landscape are investigated, from both
the perspectives of the organisations
and the workforce within them.

A collection of key statistics from our
most successful industries will give
Orangebox and readers of Workplace
Habitat 2013 a clear understanding of
what unique factors affect our work
environments of today.

**The Workplace Habitat 2013 focuses on six key UK industry sectors
which include Education, Energy, Pharmaceuticals, Finance,
Technology and the Public Sector.** Through the accumulation of
primary research, the heartbeat of these industries are fully discovered.
Understanding the social and economic landscapes of the United Kingdom can
allow Orangebox to examine the successes and shortfalls of today's workplace.

Orangebox has recently celebrated it's
10th anniversary, a journey that has
seen the organisation grow from
strength to strength.

As Orangebox grows ever dynamic,
industries and organisations
nationwide are experiencing similar
journeys. The most recent economic
collapse, of which the country is still
feeling strain, had some serious effects
upon industry and households.
Workplace Habitat 2013 maps these
changes and presents comprehensive
insight into how the land lies in 2013.

**Central to Orangebox is the belief that the more in-depth
understanding we have of workplaces and the people within them,
the more Orangebox will be able to deliver innovation for today's needs,
but perhaps more importantly, the changes tomorrow will bring.**

page **02 Higher Education**

The university systems in which our young adults progress through are a hotbed of debate. Rising fees mean rising expectations, and an analysis of the UK university network makes for interesting reading.

The increasing number of international students and the exportation of our largest educational brands are just the surface of this ever-changing and dynamic industry.

With extensive research throughout the industry, insights gained allow Orangebox to grasp the key vibrations pulsating through our educational environments.

page **14 Pharmaceutical**

The UK is one of the global epicentres for the development of cutting-edge pharmaceuticals. With a worldwide market valued at \$880bn, this vast industry represents a huge achievement for the United Kingdom.

Understanding the dynamics of this industry allows Orangebox to help facilitate the work patterns of this significant piece of the UK economic puzzle. Research and lab environments are workspaces many are unfamiliar with, but dissecting their functions can be vital to understanding an industry that invests staggering amounts of capital in a development process lasting up to 15 years.

page **26 Public Sector**

The UK's public sector is responsible for some of the oldest institutions in the world and ones that we rely upon daily. Although such institutions have come under scrutiny from the public and the press in recent years, their role within society is unprecedented. The NHS, police force, education systems and governing bodies are just some of the pieces that make up the public sector puzzle.

Attempting to explain the variations between the public and private sector workforces and work processes can be a potential minefield, but this chapter attempts to unravel the key differences between the two. Working hours, wage structures and environmental cultures are just some of the topics analysed.

page **38 Finance**

The financial industry is one of the largest contributors to our economy, but in recent years has been affected by negative media and political coverage. This chapter highlights some interesting movements within one of our oldest and most successful global contributors.

Only a handful of nations can claim to harbour an international financial hub, and ours is envied for its dynamism and power. The City and Canary Wharf now battle to take ownership of the capital's financial epicentre.

page **52 Technology**

The tech industry has changed in the past decades – no longer do companies need to manufacture millions of TVs or radios to own a leading brand. The Internet has allowed certain social movements to gain miraculous power within the marketplace. Although the largest tech companies may not be British, they have a very real presence here.

This male-dominated sector is predominantly located in London and the South East. For many years technology has shaped our office environments. The introduction of cloud technology is one of the largest movements in workplace history. This sector will help Orangebox comprehend the real workspaces of the tech industry and predict future environments.

page **64 Energy**

From the extraction of essential fuels to searching for an endless supply network, the UK energy industry is a varied but vital service that allows our economy to function. Without it, we are reliant upon foreign economies and their fluctuating market prices. Societal consciousness has led to a need to switch from dirty, un-renewable fuels to clean, sustainable sources, leading to a monumental shift for the future of the industry.

Some of our largest organisations are implementing significant measures to reduce their footprint. If we were to fully embrace the power of wind energy, the UK could be self-sustainable on clean energy.



Higher Education

Number of Employees

380,000

Most popular subjects

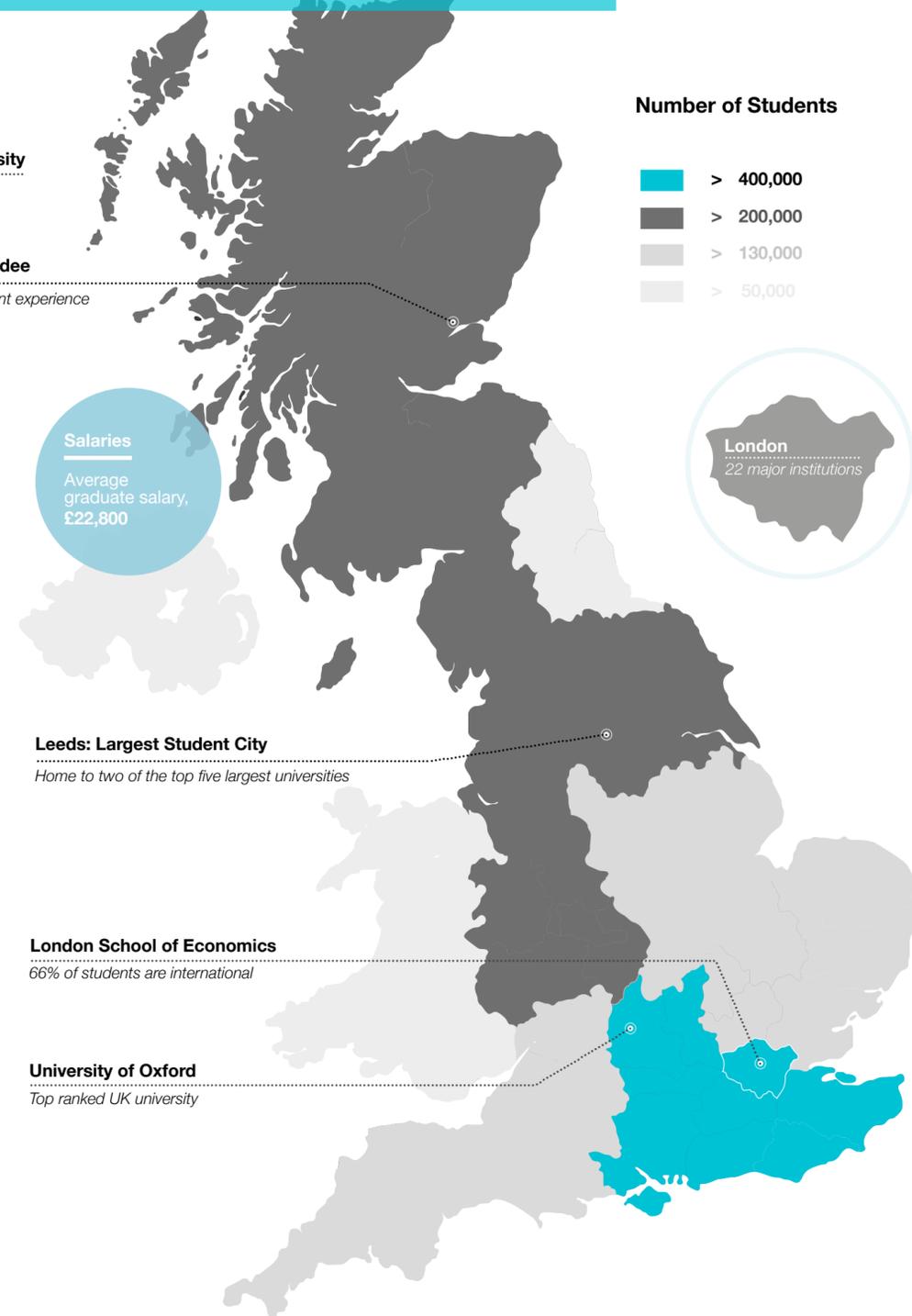
Business Studies

Nursing

Design Studies

England is now the most expensive country in the world to attain a public degree

OECD

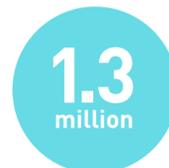


The Open University
253,000 students

University of Dundee
Voted greatest student experience



of students are female



undergraduates currently have student loans



of students are accepted

The United Kingdom's higher education system is one of the most reputable and recognised in the world.

More than 475,000 school leavers decide to attend one of our 280 university institutions every year.

According to the Times Higher Education rankings, Britain has three of the top 10 universities globally; University of Oxford, the University of Cambridge and Imperial College London. What is more significant, however, is the strength in depth of the entire tertiary education system. Within the same ranking list, the UK boasts 32 universities in the top 200, more than any other country except the US.

The amount of young people graduating university has increased dramatically in the UK. Since 1990, there has been a 134% increase in the amount of students attaining a degree.

This has impacted youth employment, the qualifications needed to gain entry level positions has now risen. Young people without a degree often find the employment difficult to meet their expectations.

Over the last ten years, there has been a significant increase in universities and higher education institutions throughout the United Kingdom. Thirty-five new universities have been created since 2001, and there are now 280 tertiary academic institutions. Prior to 2001 the Further and Higher Education Act 1992 was passed, allowing polytechnic facilities to become universities and award their own degrees.

The steady escalation of students applying for university over the last decade has triggered the creation of new institutions. Campuses are expanding at an accelerated rate and competition between universities is fierce. Each university department is funded by the amount of students they recruit and not by a central board. Universities will specialise in certain areas of academia and research can allow those departments to flourish. Newcastle University's 174 year old Medical School, for example is a recognised centre of excellence for medicine and health sciences. That department is willingly funded by its large number of local and international students.

Many centres of excellence are built on decades of innovation and research. Newer universities often specialise within a certain academic or technical subject to grow their reputation and brand. The last decade has seen a rise in art, media and design institutions to cope with the student demand for these subjects. Data, however, shows that in 2011 more than a third of art and design graduates are without full-time employment three years after graduating.

A high rank from either Times Higher Education or the Guardian provides healthy competition between all the British universities. Another way institutions will battle it out is during the annual feast of 'open days'. Prospective students and family members travel around the country in search of the most appropriate, and for them the most impressive institution.

Although the student will spend the next 3-5 years at this campus, only an hour or so tour is provided to assist with this critical decision for this critical decision. From an institution's perspective, facilities have to be impressive as well as practical to attract their most precious asset: students.

Some universities find it easier to attract talented students than others. According to an NUS report, 35% of students wanted to go to university 'for the experience'. Along with the reputation of academic credentials, the student experience is largely important to prospective students. How far the university is from the beach or how large the student union is, are a vital component in the decision making process. Cities like Brighton, Newcastle, Swansea and London would have a greater potential for attracting students than Gloucester, Northampton or Bangor, based on the student experiences that can be gained.



of art & design graduates are without full-time employment three years after graduating

The Great Student Import

International students flock to UK universities for quality of education. In the 2010 academic year, there were 428,225 international students enrolled in the UK. Over a period of 12 years, there has been a 154% increase in non-EU students, with China being the largest exporter of students to the UK. It is projected, however, that India will take the lead over the next decade.

428,225

International students enrolled in 2011

Institutions welcome international students who pay elevated tuition fees. In 2012, annual tuition costs for non-EU students were as high as £18,000; double the fees of British students. However, these students are not accepted solely for financial reasons – these individuals must attain the same if not higher qualifications than domestic students.

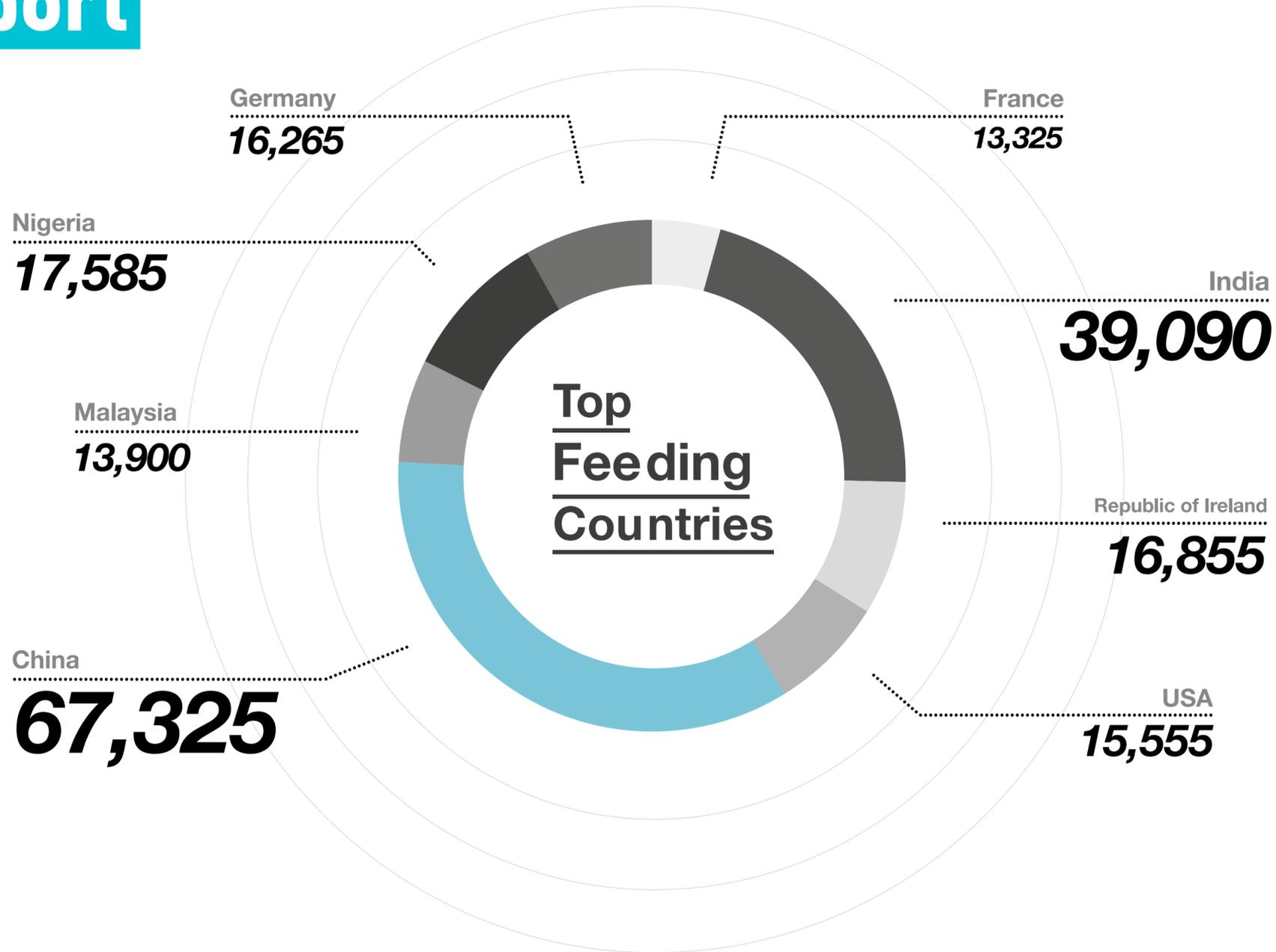
Business studies, engineering and social studies are the most popular courses with non-EU students. Many families must make sacrifices to be able to send their child to a British institution, but the booming economies of China and India will provide students trained in business with strong employment opportunities, granting them a return on their educational investment.

London has cemented its position as the most popular destination for international students, seeing off competition from New York and Sydney. While the prospect of gaining an education from a British university is a good one, many prospective students have a pre-conceived image of life in the UK which is different from reality.

Australia has recently liberalised all their student visa rules to accumulate a higher proportion of the student import market. They realise that attracting students now will generate life-long ties for business and culture, enhancing the economy in years to come. It is vital for the UK to remain attractive as other countries try to exploit the market.

London

is the most popular destination for international students, beating New York and Sydney



Ethnic Analysis of Staff



£11,435

average international tuition fee per year

Some individuals experience 'Paris Syndrome' when traveling or living in a different country. A form of culture shock, expectations gathered from films or other media lead to a disappointing and unsettling experience for some. For example, over a dozen Japanese individuals have to be repatriated yearly from Paris; their romantic vision of beautiful women seated at cafes and cobbled aromatic streets clashes with the reality of shouting Parisian waiters and rude taxi drivers, leading to psychological discomfort.

Many UK universities offer a foundation year for international students, allowing them to improve language skills and to settle comfortably into a new culture, much like a parachute gently gliding to the ground instead of a disruptive thud.

The importance of these 'parachute' courses is that students who may otherwise feel isolated and vulnerable will transition more easily into overseas study. An easier transition leads to higher retention rates, meaning a significant amount of capital can be invested back into the institution.

Understanding cultural differences is vital when providing an educational platform for talent to flourish. It's misguided to assume students from all corners of the globe have the same study habits or language skills. These differences present very real personal and professional challenges, from socialising to academic achievements.

To help overcome barriers, international consultants work with universities to encourage foreign students to join societies, local sports teams and study groups. Some international students find themselves socialising with fellow international students, creating a separate social group within campuses. Efforts to integrate foreign students into UK student culture is painstaking, but services such as student mentoring indicate how important international students are to institutions.

In 2012, London Metropolitan University had their license to accept non-EU students revoked. The institution failed to fully account for their international students. Many were accepted onto courses after entering the country on the basis of full-time study. Overseas students were applying for courses and either not attending or not returning home after their study had concluded. These are regulations that universities need to control. As the license was revoked, 2,000 of London Met's non-EU students needed to find another recognised UK institution or return home.

Rising Fees Rising Expectations



28%
Increase in applications
for Irish institutions from
UK addresses
BBC



of students pursue university
for the experience

One in five parents said:

**“Part of me hopes my child
won’t get into university
because of the costs
I could face.”** *KPMG*

In 2012, UK tuition fees increased from £3,375 per year to £9,000 as a consequence of cuts to the higher education sector, despite angry protests.

The rise in fees has resulted in falling UK applications; universities have experienced an average 10% decrease in applicants, hardly surprising when England is now the most expensive country in the world to attain a degree. Some universities have seen a crippling 30% reduction in applications.

A £6,000 tuition increase must be a bitter pill to swallow for prospective undergraduates, knowing that others have had the ‘same’ educational experience for a third of the cost.

The problem for institutions is that students will expect £6,000 worth of improvements to their educational experience. These perceived improvements could include more teaching hours, refined accommodation and an improved quality of their study habitats. This perception is an increasingly critical issue for the sector, as fees are designed to cover government funding cuts and not an improvement in services.

Both undergraduate and postgraduate tuition was free until 1998, when annual tuition fees were set at £1,000. A subsequent increase came in 2004 when fees were raised to £3,000.

In the span of 14 years, the cost of attaining a public degree has increased from being free to costing a UK student £27,000.

Going to university is regarded by many as a rite of passage, seeing an individual grow into an adult through the student experience, where they learn how to manoeuvre social situations on their own.

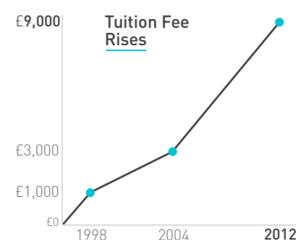
The rise in fees will result a focus shift from the university experience being a social and laid-back adventure to one of hard work and value for money, according to a survey by UNITE. Students will expect teaching and academic facilities to improve, with staff and spaces more accessible and accommodation more refined.

A KPMG survey found that parents are feeling the strain of higher tuition fees: 77% of parents said rising tuition costs are a barrier to their child attending university. One in five parents said: “Part of me hopes

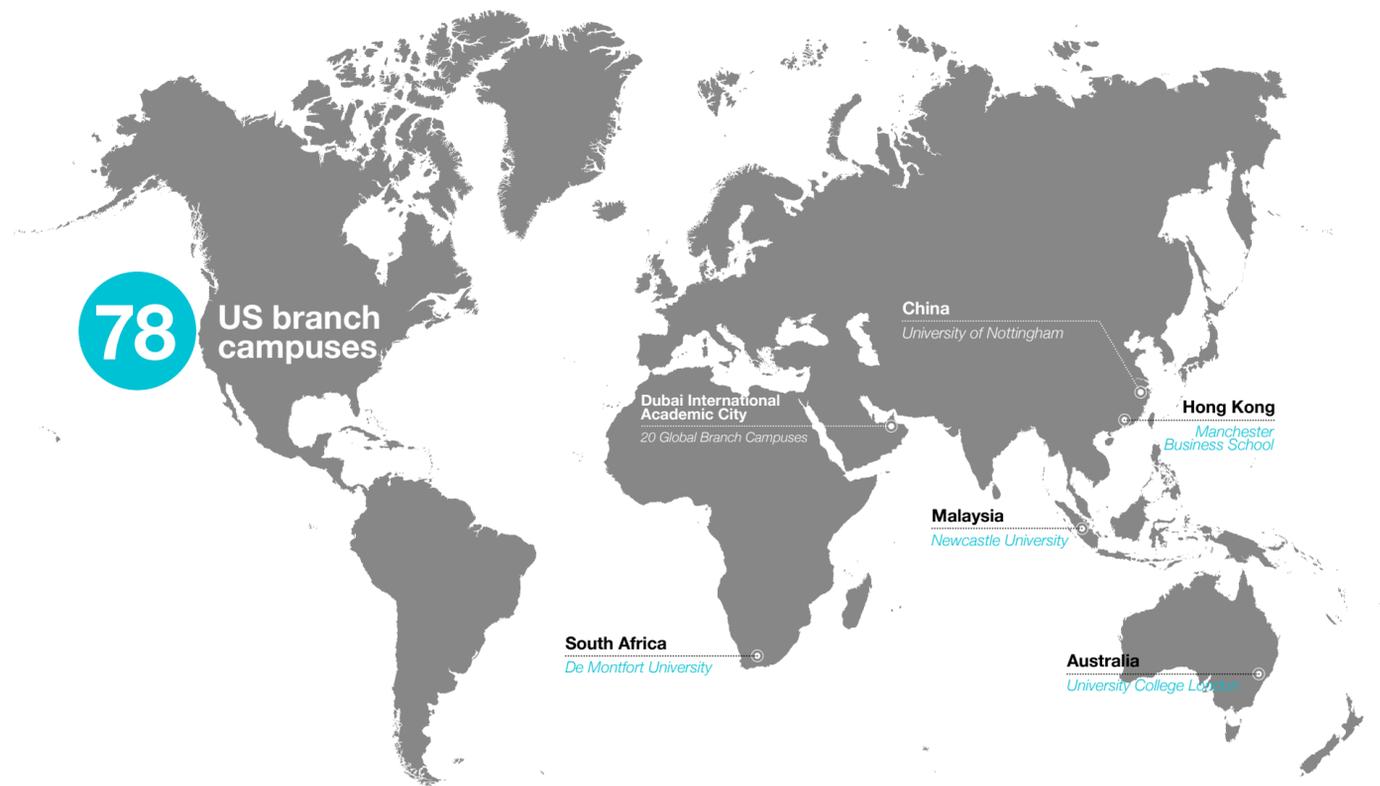
my child won’t get in or hadn’t got in to university because of the costs I could face.”

While university applications from UK students are falling at home, they are rising abroad: applications by UK students wishing to study at Irish institutions, where fees are one-fifth less, have risen by 25%.

Institutions are finding it hard to meet the expectations of the prospective students, but one way to satisfy their needs is to increase industry input into academic courses. According to the KPMG report, 89% of student respondents want to see increased support from employers in the form of internships, industry workshops and collaborative apprenticeships.



Exporting the Education Brand



There will
be **237** branch
campuses
by 2013 *BIS*

UK students wishing to study at the
University of Nottingham would find
it cheaper to study at its branch
campus in China *Guardian*

Established universities the world over are constructing campuses as branch extensions to parts of the world which might not have an established academic system. The UK, USA, France and Australia are pioneering this transition from domestic to international campuses. At the end of 2011, there were 200 branch campuses and a prediction that a further 37 will be created by 2013.

Britain is home to some of the oldest and most prestigious universities in the world. Thousands of international students annually flock to our shores to attain a degree from the British higher education system. The University of Nottingham has created a campus in Malaysia, which alone is ranked 75th in the QS World University Rankings.

The education export concept seems to be a winning formulae. The opportunity allows the university to recruit further students, leading to increased revenues. It also expands the reach of their brand, heightening its reputation around the globe. For the host nation, it’s a quick way to increase the standards of their higher academic system. Most importantly, however, the benefit lies with the student. It is now possible to attain a globally

recognised degree without having to travel huge distances at an extortionate price. In fact, now domestic fees have risen, prospective students in the UK wishing to study at the University of Nottingham would find it cheaper to study at its branch campus in Malaysia.

The United Arab Emirates is the desired destination for the education exiles which account for 37 of the 200 international campuses. The UAE are followed by Singapore (18) and China (17). Other destinations include Rwanda, Mexico and Cyprus, among others.

Within these nations, a new type of educational infrastructure has occurred. Dubai, along with Malaysia and Qatar, have created academic ‘cities’, where clusters of domestic and international universities have fused to form super campuses. Dubai’s International Academic City (DIAC) houses 27 different institutions, supplying 20,000 students from 137 different nations. These cities are a vibrant indication of efficient education designed for developing countries. Students are allowed to study a variety of modules from the whole range of institutions on the site.

35 new universities have been created since 2001

UCAS



The Student Union

The real workplace

The heartbeat of British campuses lies deep within the student unions. Some time ago, **the union was a sanctuary for flat beer and optimistic posters.**

Today, the SU houses societies including a mixture of martial arts, wine tasting and tech clubs, **but why the transformation?**

What matters most to the modern student? Is it the amount of quality teaching hours or the extent of the library facilities? Or is it the size of the Starbucks and the bar in the SU?

Students can now write entire dissertations from their laptops. Textbooks and other reference materials are online and mobile, the SU offers comfort and connectivity with a smile rather than the familiar library frown.

What contemporary academic institutions strive for are flexible spaces than can be easily transformed in a short period of time. Environments that can quickly evolve from a quiet exam hall to a bouncing night club.

Modern universities that may be lacking space within their campuses are now looking at flexible walls, bespoke lighting systems, acoustic pods and

manoeuvrable furnishings to allow a fixed space to facilitate multiple needs.

The student's union is one place where multi-use, flexible spaces can be found. Whole floors will feature a maze of intertwining partitions easily adaptable to the next event that will be taking place.

The SU allows students to break away from the lecture theatre and library for some relaxing and socialising. Spaces within the SU have the potential to transform a university campus experience for students. Library traffic has dropped due to secluded yet comfortable study areas, allowing students to be academically active 24 hours a day.

Group study pods and touchdown internet bars are what the modern student wants. Whether it's a quick walk to a Starbucks or because it's just 'cool', the SU has become a recognised study space.

The Horizontal Generation

The academic habitat needs to be a durable and flexible environment capable of withstanding extreme levels of usage. This practical need must be balanced with the need to provide innovative spaces which encourage collaboration and creative expression. Furniture can also play a key role in the extension of an institution's brand.

Alongside the needs of inhabitants, durability of space needs to be considered when designing campus environments. Students using Britain's university spaces can treat areas as an extension of their student digs, sprawling across a soft seating unit or lying horizontally on a lounge chair.

In a recent report, 57% of Cambridge University students said they spend more time on Facebook than they do studying. This Facebook time usually takes place in interpersonal areas, with furnishings subject to extreme amounts of care-free traffic.

The furniture at a higher education campus could last only two or three years in comparison to the same furniture being installed within a commercial workspace.

Students expect and have been supplied with comfortable, social arenas to work and play. If organisations that employ graduate talent don't adopt similar workspaces, that may discourage the horizontal generation to be less expressive or even reclusive.

Cambridge University students spend more time on Facebook than they do studying. 57% said it's affecting their studies *Telegraph*



Sir James Dyson says that 70% of engineering and technology postgraduates are from overseas,

many of them taking their skills with them when they return

Something's missing:

the growing gap between student degrees and employment needs

Sir James Dyson claims that 70% of engineering and technology postgraduates are from overseas, many of them taking their skills back with them when they return home.

He stresses that housing research and development facilities within the UK is vital for UK PLC. Currently Dyson look abroad to facilitate their growing needs.

Four of the largest UK accountancy firms have manufactured a solution to their current talent gap. Collectively, they hire several thousand graduates annually and their recently formulated solution involves replacing universities all together.

By establishing a school-leaver training programme, which provide successful A-level students with the opportunity to complete a five or six year structured course that will filter them successfully into employment. Students enjoy probable employment, while the firms benefit from the process of moulding students into a more relevant and talent focused workforce.

A high level of personal capacity and professional competence is required for graduates

to enter today's workforce. The responsibility of a successful transition from education into a work environment would lay with the university. Employers would expect higher education institutions to provide the training and workplace skills needed within a graduate's repertoire.

A recent ONS report stated that 36% of recent graduates are employed in lower skilled jobs compared to 27% in 2001. Last year, one in every five graduates were unemployed, and the problem is compounded for arts graduates, whose hourly wage is 21% below the graduate average.

Employers tend to lay blame with universities for unpolished and unfocused graduate. In the UK, a third of companies cannot find suitable candidates for graduate positions. Prospective employers are demanding more of candidates than ever before. Training or bedding in time will effectively cost the organisation money in the short term. It's a difficult situation for graduates, knowing that to be successful in attaining a job they must have relevant experience.

2001

27% of graduates are employed in lower skilled jobs

2012

36% of graduates are employed in lower skilled jobs

ONS

Students enrolling in 2012 will leave with an average debt of £53,400

Telegraph

Life Rich, Cash Poor

Individuals wishing to improve career prospects know that it may be necessary to obtain a degree, but unless they've stumbled upon a small fortune in the school yard or their mother or father is an executive board member, they'll be likely to need financial assistance or loans. The level of debt that will be incurred over a course of study can be enough to keep some from participating in tertiary education, despite the life enriching experience university study can provide.

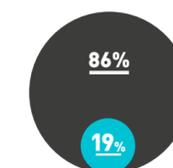
Tuition fees are just the tip of the iceberg. Maintenance loans and student overdrafts are all significant financial burdens for graduates. With the rise in tuition fees, students beginning study in 2012

will leave with an average of £53,400 of debt (compared to £26,100 in 2011).

The socio-economic issues after graduation must also be considered; because the average student loan repayments take approximately 11 years to repay, potential first time home buyers will find it difficult to gain a foothold on the property market and one in three graduates are reluctant to start a family.

In the past, the benefit of achieving a degree qualification was to enhance the chance of following a preferred career path with higher wages. Today, 25% of graduates are unable to find an entry level position, with 68% of all university leavers underestimating how much money they owe. A sobering statistic shows that 86% of students have taken out some form of financing aid and 19% of those students believe that those aids are interest-free.

25% of graduates are unable to find entry level positions ONS



86% of students take out some form of financing aid while 19% of those students believe the aids are interest free



average time student loan repayments take to clear



1/3 of graduates are reluctant to start start families due to financial constraints

Quick Read Insights

- 35 new universities have been created in the UK since 2001.
- Competition between all universities is now highly competitive.
- Dramatically rising fees mean dramatically rising student and parent expectations that are proving increasingly challenging.
- China is currently the largest exporter of students into the UK.
- Our key universities increasingly have satellite campuses worldwide.
- There is a growing disparity between graduate degrees and employers needs.
- The average graduate debt will rise to £53K in 2013 and will take 11 years to pay off.
- Flexible and adaptive spaces within the campus have become vital.

Pharmaceutical

Number of Employees

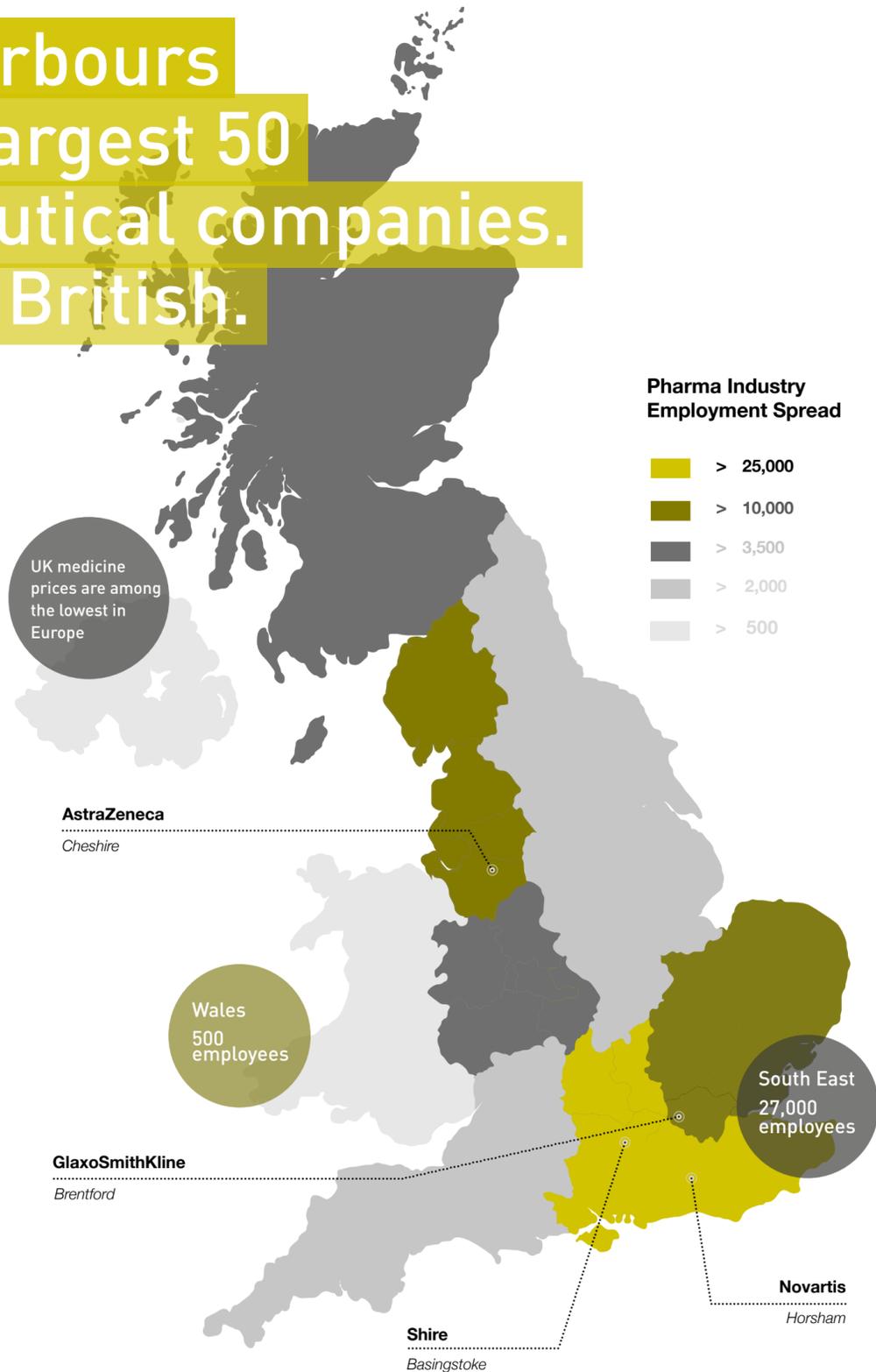
67,000

£31.8 billion

annual UK industry turnover

The UK harbours 37 of the largest 50 pharmaceutical companies. Only 3 are British.

ABPI



33%
of the UK pharmaceutical workforce conduct research and development

£12 million
daily investment in research & development

90%
of 2010 pharmacy graduates were employed six months after graduating

From 2000 to 2010, the pharmaceutical sector was the UK's second fastest-growing

BIS

The way in which the sector innovates and collaborates is ever-changing, much like the weather and its winds. The pharmaceutical industry thrives due to fierce competition and an unwillingness to become complacent.

The global pharmaceutical industry is estimated to be worth \$707 billion, and the United Kingdom is a key player with over 67,000 employees.

Revenue per employee is the largest across any industry. And, in comparison to other UK sections, the geographical spread is well-balanced. Unlike other sectors, pharmaceutical organisations don't benefit from close proximity with competitors, so the tendency is to position themselves closer to educational institutions with a pedigree for medical science, teaching, and research. Hubs of industry in the UK are the North West and South East of England, and the West Midlands.

Investment within the UK over the last several decades has been significant, although continued efforts are needed to secure this vital, knowledge based industry – it is a sector with a constant need for replenishment of talent.

Educational facilities need to continuously do more to meet the demands of an industry that could easily find itself looking to other economies to support their investments. Not only is a thriving talent pool necessary to secure strong investment, improved regulations and tax benefits also are constantly assessed.

The UK harbours 37 of the largest 50 pharmaceutical companies globally, with three of those having headquarters here. GlaxoSmithKline and AstraZeneca are the largest UK owned pharmaceutical companies, but it is investment from abroad that significantly enhances Britain's global presence in this industry.

An intriguing question to ask is: why the UK?

How have we developed a gravitational pull for such powerful, multi-billion pound organisations?

France and Switzerland have rich pharmaceutical pedigrees, but neither sees as large an influx of investment as the UK. Between 2000 and 2010, the pharmaceutical industry was the second fastest growing sector, behind financial services.

Britain has successfully crafted an environment in which life-science organisations flourish, and it's far from billowing drug factories: 33% of the UK workforce apply themselves to research and

development, and 54% of these individuals are scientists or engineers.

Four of the top 10 global universities are here, annually producing talented graduates. A healthy student stream allows an already rich medical sector to continue the discovery, development and commercialisation of drugs. Companies contribute to the education of promising graduates: in 2011, 644 PhD studentships were awarded and 287 post-doctoral grants were issued.

A testament to the spirited investment in these UK universities, statistics show that over 90% of 2010 pharmacy graduates were employed within six months of concluding their studies.

It isn't just our talent pool which attracts leading pharmaceutical players. An outstanding legal system also helps to patent potential market-leading discoveries. Combine this legal strength with government-aid measures such as tax credits, and an attractive haven is established.

More successful medicines were created in the UK than the whole of Europe combined, and globally our sector is only junior to those of the US and Japan.

More successful medicines were created in the UK than the whole of Europe combined.

In 1994, the number of prescription drugs in circulation totaled 560 million. In 2011, that figure reached 1.17 billion. Those statistics may indicate that more people are consuming prescription drugs, yet what is in fact happening is that the number of prescriptions issued per person has increased from 9.7 per person in 1994 to 18.8 per person in 2011.

Cardiovascular prescriptions have been on the rise in the last 15 years, even though respiratory, infectious and gastro-intestinal prescriptions remained constant. The investment and development within this therapeutic area has led to increased revenue flows for the UK pharmaceutical industry.

Pharmaceuticals take 12-15 years to research, develop and patent

The 15-Year Cycle: successful drug discoveries can turn revenue streams into oceans.

Successful drugs will gain market exclusivity and make billions of pounds in revenue, while unsuccessful drugs won't cover their development costs. An industry that manufactures and supplies millions of drugs daily constantly battles a bureaucratic war with patenting bodies over exclusivity of drugs.

Successful drug discoveries can transform streams of revenue into oceans of income, which is why an irrepressible amount of time and capital is invested into R&D. In 2011, £4.3bn was spent across the UK in trying to replicate the success of prior discoveries.

The most successful drug to date is Lipitor, discovered by US pharmaceutical Pfizer. Lipitor has generated over \$125bn in revenue for Pfizer since 1997. A patent allowed Pfizer to reap the benefits of market exclusivity, as it prevented competitors from recreating the drug until 2011, when other pharmaceutical companies were able to manufacture and sell the drug for a fraction of the original market price.

The average cost of bringing a new drug to market stands at \$4 billion, yet staggeringly, only three out of every 20 drugs that are patented and brought to market will cover their development costs.

17 out of 20

drugs brought to market will not cover their development costs

Organisations can only sustain large investment gambles by discovering a drug like Lipitor that will offset the shortcomings of other underperforming discoveries.

The length of a patent is critical, but often will cost millions of dollars to attain. The longer the patent period, the greater the potential profit that can be generated.

There are ways around this conundrum. As Schering-Plough's antihistamine drug, Claritin, approached the conclusion of its exclusive patent, the company repacked and renamed the drug to allow it to continue profiting. Rather than solely allowing generic pharmaceutical companies to duplicate the drug unchecked, Schering-Plough applied for an alternative patent which sported a new name: Clarinex.

\$4 billion

the average cost of bringing a new drug to market

We are currently in a time of transition - in 2012 and 2013 seven of the world's 20 best-selling drugs will lose their patents. The cost of prescription medicines for blood pressure, asthma, diabetes, depression and HIV will decline as generic competition steps in, slashing the brand price by around 80%. This equates to large pharma companies losing billions of pounds in revenue, leading to a continuous cycle of research and development of new drugs.

One-third of the UK pharmaceutical workforce conducts research and development at hundreds of laboratories. Our education system allows R&D departments to blossom, and pharmaceutical companies know that to generate profits, investments need to be made on an ongoing basis. Over £12 million is invested in R&D daily in the UK, hailing the pharmaceutical industry as the heaviest investors in research & development within the UK.

The most successful drug to date, Lipitor has generated \$125bn in revenue for Pfizer.

The Testing Labs

The pharmaceutical industry has suffered the blows of a faulty perception of cruel animal testing. This has prompted companies such as AstraZeneca to relocate and conceal the location of new development laboratories from protesters.

Animal testing began as a fail-safe method for confidently bringing new drugs to market. By law all new medicines must first be tested on animals in order to ensure patient safety. Controversial as this may be, this law provides security for the wellbeing of human beings. Testing can take place for years and is a substantial drain on resources.

Medical achievements have had a significant effect on global mortality rates. For women in the UK, life expectancy stands at 82 years of age, in 1912 that figure stood at 54. Some of these achievements are due in part to pharmaceutical discoveries such as insulin, Thorazine and aspirin, leading the human race to control and manage biological conditions that would otherwise be destructive for millions.

Penicillin was discovered in the 1870s, yet only when it was tested on mice in 1940 were its benefits fully understood, as the first antibiotic was born.

Without its monumental discovery, 75% of the world's population wouldn't be alive today.

Animal testing plays a significant role in the development of drugs, yet it has growing opposition, with many activist groups targeting pharmaceutical companies as well as cosmetic companies. Despite the UK's strict animal testing regulations, attempts have been made to disrupt research, leading to the

choice of some companies to hide their laboratory locations by de-branding their facilities entirely. Unfortunately, these targeted attacks may encourage organisations to outsource testing to other nations where regulation isn't as thorough.

Corporations have spent millions of pounds securing their premises and protecting their staff from the minority who take illegal action against them.

Animal testing for cosmetic advances seems to raise the temperature of public opinion, and unfortunately this puts undue pressure on positive pharmaceutical research. In 2012, all ferry companies and all but two airlines have refused to import animals into the UK for research purposes. The government is currently intervening.

87%

of the UK general public support animal testing for medical purposes

The current alternatives to animal testing, which include using cell cultures or computer technology, don't reveal the full impact of drugs on the major organs in the body. You may believe that an animal's construction differs entirely from a human's, but their similarities are quite amazing. A reduction in the amount of animals used during the testing process has been of paramount importance to the industry and it is purely a myth that more animals than necessary are used in the process. These laboratories are the most monitored in the country, as the industry thoroughly regulates itself.

Securing Pharma

Physical and intellectual protection is critical in an industry that invests billions of pounds.

Each and every one of us has come across workplace measures and practices designed to secure us from dangers. These measures may take the form of a simple key fob to enter the lift, or a finger-scan system on every door of the building. The measures can be sometimes trivial, but the dangers can be very real.

In the pharmaceutical industry, security remains a key focus. Drug development has some obvious risks and there is certainly a need to secure premises. Working within a lab with chemicals can be dangerous, hence controlling measures. Allowing certain personnel to access environments while restricting others is a priority.

The development and manufacture of medicinal products cannot be done without the storage of chemicals desirable to others seeking to abuse their uses. This justifies the security precautions taken by pharmaceutical companies, whose campuses provide a staggering amount of security and privacy. Round-the-clock manned gates and perimeter-securing patrol teams are measures taken by not only large pharmaceutical organisations but most security-conscious companies.

Large greenbelt sites provide space for research departments to go about their business, breathing easily. Drug development is vital in this fiercely competitive industry, and security is of the utmost importance not only from a physical standpoint, but an intellectual one. Intellectual property protection is critical in life science industries. Highly sensitive materials are controlled by video surveillance systems, elevator access and smart card technology. Of course not all workplaces provide these measures, but not all workplaces store confidential data with a potential value of billions of pounds.

Counterfeit drugs couldn't be more serious, with 8.4 million found by just one organisation in 2010. BIS

Counterfeit medicines are a very real threat to society, not only do they undermine patents, but they pose serious health risks to users exposed to them.

Counterfeit drugs are on the rise and it's almost impossible for consumers to know what chemicals they are really ingesting. In 2010, 8.4 million illegitimate drugs were found by just one pharmaceutical company. The medicinal blind spot seems to occur between the re-packagers and the wholesalers, where the industry is under-regulated.

Global companies are increasingly seeking outsourcing options to increase profitability, but this comes at a security cost. New measures have swept the sector, including no disc use, memory drives or even mobile phones with cameras. These are the necessary steps to protecting valuable assets.

Data protection is critically important to those who work in life sciences, but with increased communication to third parties, the pharmaceutical sector sees a large number of incidents of data loss. A staggering 25% of entire data loss cases across all sectors occurred in the pharmaceutical industry, according to KPMG. Compare that to just 5% in the technology market and 12% in financial services.



The Campus Workplace



R&D tasks need an environment that differ from traditional office workspaces and new 'campus' workplaces are increasingly popular for large multinationals. **What do they offer and how efficient are they?**



It's hard to ignore the workplace strategies of some of the largest multinational organisations. Sub-urban, large scale campus dwellings, which offer employers an environment which can foster productivity and innovation. These mammoth sanctuaries increasingly cannot be located in city centres.

These new corporate campuses possess the square footage that inner-city work environments can only dream of. Workforces ranging from 2,000 to 20,000 are facilitated across several buildings, intelligently integrating functionality and comfort.

A greater work/life balance can be created by eliminating negatives that inevitably arise with inner-city working, such as commuter congestion, noise pollution and elevated property prices, to name a few.

Initiated in the 1980s, these campuses allowed corporations to control and manipulate their environments more easily. The cost of land was an obvious attraction, but other benefits far outweigh

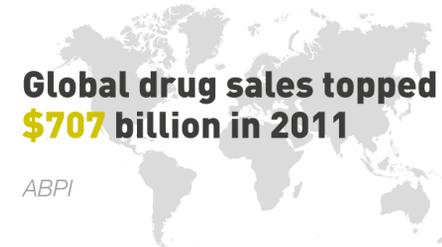
the drawbacks. Village habitats can be created to enhance the work experience, including services such as parking, libraries, children's crèches, pharmacies, bicycle & vehicle workshops, grocery outlets, banks and gymnasiums to provide an invaluable and concentrated working habitat.

These out-of-town landscapes are usually secluded and accessible by car or organized bus connections, minimizing the travel chaos that consumes the daily city commuters.

Seclusion brings concentration to a workplace. Distractions are extinguished, providing a more focused atmosphere. Most UK pharmaceutical companies now operate within campus communities, with laboratories and research departments benefitting from this strategy.

Global drug sales topped \$707 billion in 2011

ABPI



It isn't a coincidence that some of the most **innovative, powerful** and **creative** companies in the world have intelligently strategised their workplace around the **campus concept**.

Pharmaceutical companies, tech giants, and creative houses thrive on collaboration and community to spark discovery.

Creativity may leap from any interaction, and by structurally and culturally enhancing the chance of these interactions, organizations benefit.

Success is achieved from having a physical and organisational structure of a campus designed to realise efficient, human-scale collaboration. Via the crafting of a habitat that allows users to be comfortable and responsive, organisations are able to achieve a 'togetherness' that isn't as prominent in other, more traditional facilities.

At the innovative and highly respected GSK global headquarters in Brentford, a self sustaining environment has been created within a sub-urban location. Designed to be comfortable and highly social, an internal, large scale urban space allows employees to 'shop' and mix within a street setting.

It isn't all smooth sailing for the pharma industry upon our shores however, Pfizer built a state of the art manufacturing and R&D campus in East Kent. The site was opened in 2005 and famous for discovering the anti-impotence drug, Viagra. At the sites height more than 5,000 Britons were employed on the campus. Manufacturing soon stopped in 2007 and now the site is completely empty. Pfizer claimed that the move was purely strategic and nothing remotely to do with the health of the UK science industry.

The campus model has also been successful throughout the US from the 1960s on, perhaps as a consequence of their commitment to personal transport and the rapid explosion of businesses outside of the city centre through new urban expansion.

Today the Googleplex is arguably the world's most famous corporate campus. Google's \$319-million, 22-acre complex in Mountain View, California, consists of four core buildings with more than 500,000 square feet of space. The complex houses around 2,500 employees, and includes swimming pools, gymnasiums, a volleyball court, laundry facilities, and 11 restaurants where meals are free.

The Googleplex houses 2,500 employees within 500,000 sq ft. Facilities include swimming pools, laundry services and complimentary meals at 11 restaurants.

It isn't a coincidence that some of the most innovative, powerful and creative companies in the world have intelligently strategized their workplace habitat around the campus concept. One of the most energetic brands of this new generation is Abercrombie & Fitch, a fashion company. Their facility in New Albany, Ohio, lies within 400 acres of rural woodland.

The campus tries to capture the culture of the brand. Spaces are designed to be social and intimate, increasing the chances of face-to-face collaboration. Transportation can be dull and tedious, however necessary, but A&F have provided scooters for their employees to flit around campus. Open-desk spaces and large meeting areas emit a relaxed and casual tone. Sports fields are popular in the summer, while log fires rage in the winter. This campus caters for its inhabitants.

Quick Read Insights

The UK houses 37 of the largest 50 pharmaceutical companies in the world, but only three of those companies are British.

The South East of England is a hotspot for life science companies, with 24,000 employees based in this region.

A third of the pharmaceutical workforce apply themselves to research and development, which sees £12m invested daily.

As many as 90% of 2010 pharmacy graduates were employed within six months after graduating.

The average cost of bringing a new drug to market stands at \$4bn, and 17 of 20 drugs brought to market will not cover their development costs.

Retirement Requirements



According to the Office of National Statistics, **the average man and woman now retire at 65 and 62 years of age, respectively.**

In late 2011, the government abolished the default retirement age of 65, meaning that more and more companies will have an older workforce. We know that we are an ageing population, but what measures are employers deploying to cater for older individuals in the workplace?

Around 12% of men in work are aged 65 and above, and that percentage has been rising steadily for decades. Regardless of financial reasons why people formerly perceived as 'pensioners' cannot retire, the experience they have to offer is vital for organisations. A recent survey by the Chartered Institute of Personnel and Development found that 93% of employers agree that the knowledge and skills of older workers are highly valuable to their business. What is slightly baffling is that the same survey discovered that only 14% of managers considered their organisations well placed to cope with the issues of an ageing workforce.

On the flip side, a common theme emerging across several UK sectors seems to be a shortage of young

lifestyle changes and information on managing a pension plan. In 2005, BT abolished its retirement age and now has 2,000 employees over the age of 60.

Another example of best practice includes the German airline Lufthansa, which has 3,000 employees on a flexible retirement agreement. For cockpit and cabin crews, there is an intermediate pension scheme covering the years between the end of flying and retirement. Similarly, Guernsey Post offers in-house physiotherapy and redeployment for ageing staff if needed, along with offering annual contracts to staff over the age of 65.

For many, retirement occurs when it is affordable to do so. Traditionally, an employee would accumulate a 10-year pension, but this has steadily increased to 20 years as average lifespans increase.

With the removal of the Default Retirement Age, forced retirements can be challenged as unfair dismissals and age discrimination. Employers

93% of employers agree that the knowledge and skills of older workers are highly valuable to their business but only 14% agreed that the business is well placed to cope with the issues of an ageing workforce.

talent entering the workplace. A recent Manpower survey of 35,000 employers indicated that 33% of employers struggle to find employees with the skills to meet their business needs. A skill gap at the 'bottom' end of the age range makes the knowledgeable masses approaching retirement age extremely valuable.

The communications giant, BT, has a programme in place entitled 'Achieving the Balance'. Its aim is to help employees transition from full time work to retirement. A course for hundreds of its workforce covers

will not be able to continue with fixed retirement age policies unless they can justify them as being positive business aims. A decade ago, Marks & Spencer abolished its compulsory retirement age of 65. A review of the retirement practice revealed that the company needed to attract and retain highly skilled sales advisors, the removal of a retirement age came hand in hand with a flexible working drive, enabling older staff to reduce working hours rather than completely retiring. M&S now employ 700 retail staff aged over the age of 65.

Public Sector

Number of Employees

5.89 million

Approximate Annual Budget

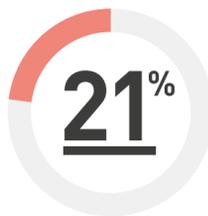
£700 billion

One million more people are working in the Public Sector now than in 2002

BIS



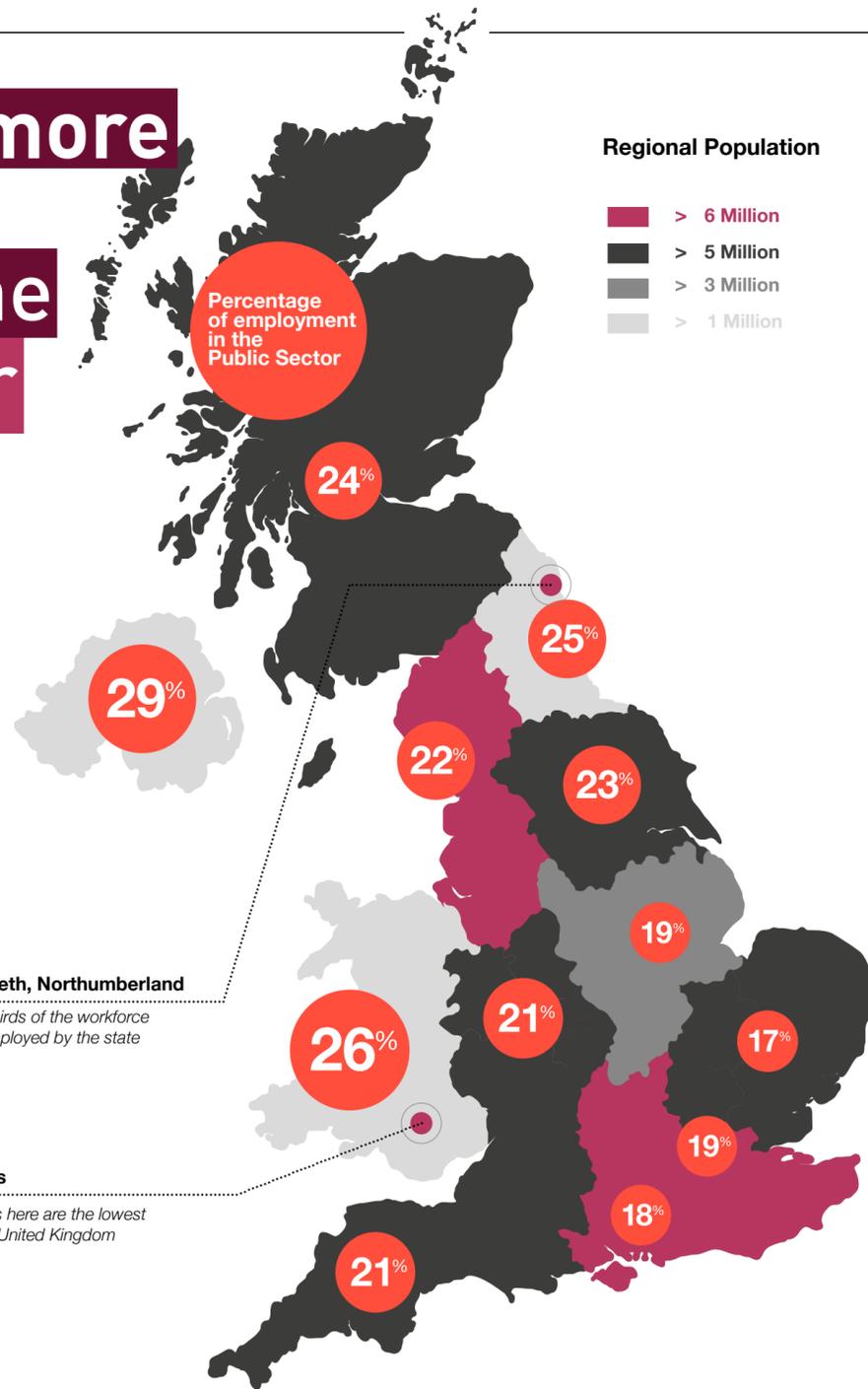
65% of Public Sector employees are women



21% of the UK workforce are employed in the Public Sector



Employees with a degree will earn 6% more in the Private Sector



Morpeth, Northumberland
Two-thirds of the workforce are employed by the state

Wales
Wages here are the lowest in the United Kingdom

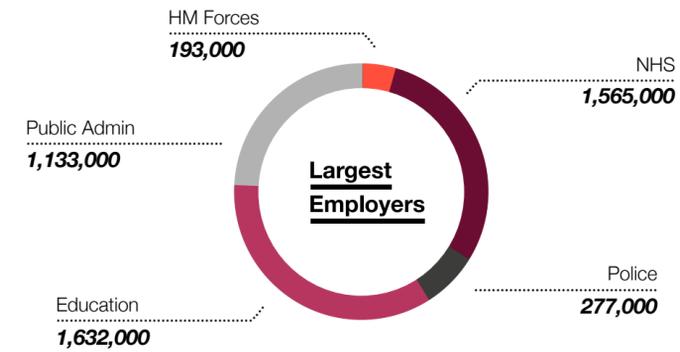
The Public Sector is pivotal in sustaining economic stability within the United Kingdom.

The sector's influence stretching across every inch of our economy, with six million of the UK's working population employed by the government. This accounts for a remarkable 21% of our workforce.

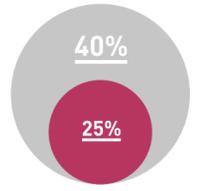
By far the three largest employers within the public sector are education, the National Health Service and public administration. Public administration is a dynamic arm of the government, broken down into local authorities, central government (including the

civil service), and devolved government. The UK houses 483 local authorities, and 47% of its workforce have full time contracts.

There has been a significant increase in the number of citizens working in the public sector over the last 10 years, all of whom experience differing career structures and working hours to those in the private sector. Public sector workers, on average, work 37 paid hours a week. That is a two-hour advantage over their private sector counterparts, who work an



Over the course of a year, Public Sector employees work 12.5 days less than those in the Private Sector



Almost 40% of Public Sector employees have a degree compared to 25% in the Private Sector

Public Sector employees clock up 23% less working hours than those in the Private Sector

ONS

average of 39 paid hours a week. Over the course of a year, that advantage accumulates to over 100 less working hours, the equivalent of 12.5 working days.

The National Health Service's 1.5 million employees all play a vital role in maintaining the pioneering health system. An NHS survey revealed that 60% of nurses and midwives work 12-hour shifts with a considerable size of the NHS workforce committing to more than 48 hours a week.

The UK ranks third in the EU for longest average full-time work hours (42.7), behind Greece and Austria, who both announced 43.7 average hours a week in comparison to our 42.7 hours. That statistic was higher from 2000-2010, but due to the increase in part-time working contracts, the average has been reduced. A TUC report recently highlighted that five million workers attend an extra seven hours, 12 minutes' work a week as unpaid overtime. However, UK working hours declined by 5% in the last 20 years with construction still remaining the sector with the highest working hours.

According to the latest government figures, policemen, teachers, nurses and other public sector staff get paid an average of 7.8% more than the average private sector worker. However, that statistic doesn't quite portray the correct wage landscape.

UK working hours have declined by 5% in the last 20 years, meanwhile construction still remains the sector with the highest working hours.

Almost 40% of public sector employees have a degree or higher education qualification compared to less than 25% in the private sector. Having said that,

if those higher qualified staff were to be compared sector to sector, those who worked in the private sector would earn 6% more than those in the public sector.

Britain's public sector currently offers a national standardised wage for all regional job positions. This means that nurses living in London who are subject to higher living costs earn the same amount as public sector nurses in Wales where the cost of property, food, transportation and council tax is significantly lower.

Regionalising salaries spark fears about the increase in trade union membership, potentially leading to increased confrontation. Despite these fears, regionalising salaries would allow the government to make savings or allow the reallocation of taxpayers' money.

Pensions are a hot topic of debate for many throughout the country. Every decade that passes sees the average life expectancy rise by two years.

With an ageing population and a significant percentage of that population expecting a public sector pension, the debate rages on whether there will be enough capital in the cumulative pot to pay out. The government plans to raise the retirement age from 60 to 66 for public sector workers. The average pension payout for a public sector worker stands at £7,800 from a final salary fund of around £200,000. However, with the rise in retirement age, workers are expected to pay an increase of 3.2% into the public pot.

With shorter working weeks, the public sector does offer a better work/life balance but the stereotype of a public sector job being a secure one might not be correct. Already 270,000 public sector workers have lost their jobs since the coalition government came to

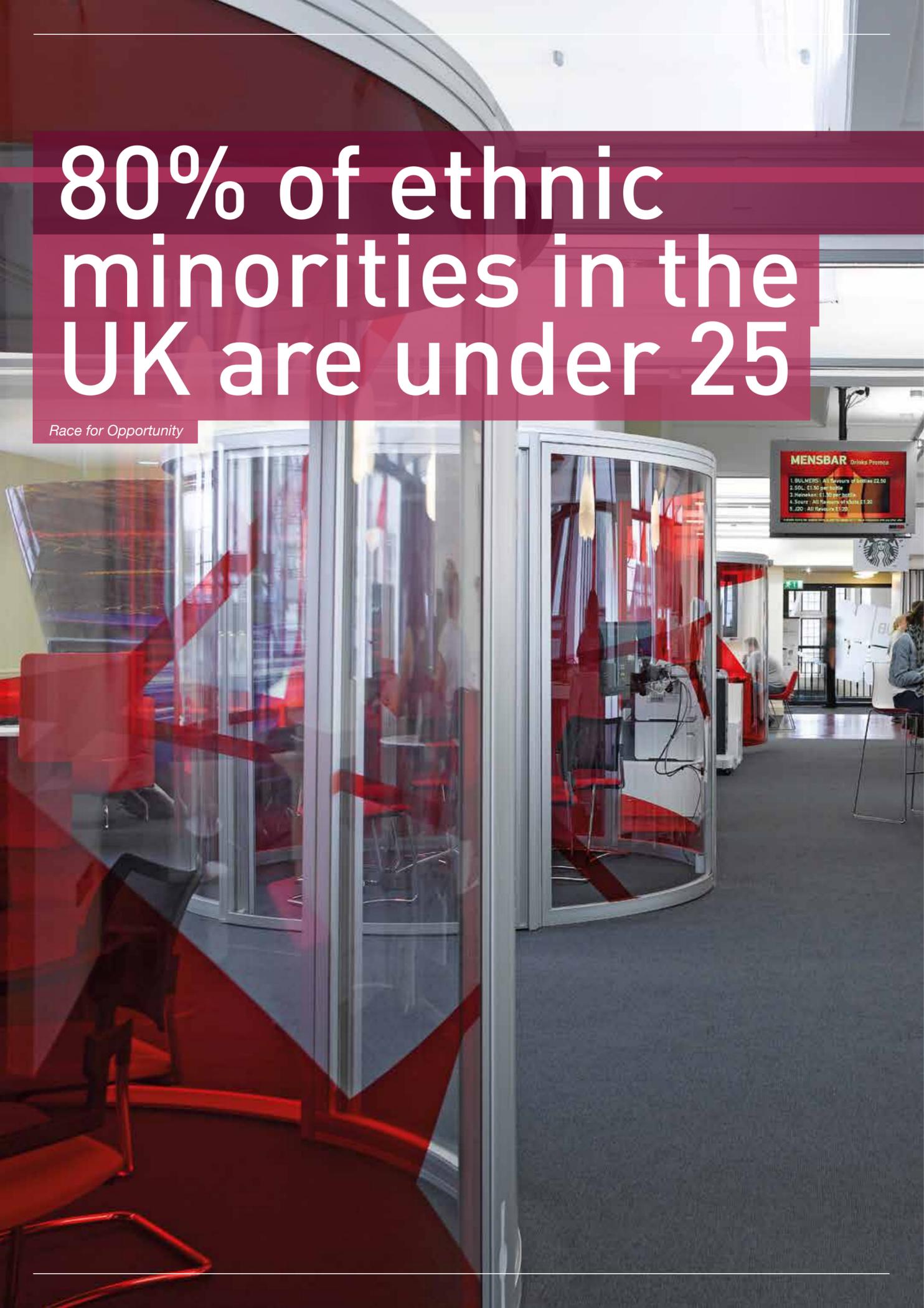
power. Since this sector is disproportionately comprised of women, the cuts have helped push female unemployment to a 25-year high. The public sector's arm reaches to all corners of the British Isles, but the importance of the sector within certain regions can be surprisingly disparate.

In Northern Ireland and Wales, a great number of the workforce is public sector employees, 29% and 26% respectively. Their wages are vital to the socioeconomic health of the regions. In London and the East of England, only 19% and 17% of the workforce are employed by the government, representing a markedly different situation.

If government plans for regional public sector salaries were to be successfully implemented, they would have a severe effect on the economies dependent on the sector, such as Wales, Northern Ireland, Scotland and the North East of England. A decrease in public sector salaries would result in a significant blockage to growth with decreased spending, further magnifying a disparity of wealth.

Wages in Wales are now the lowest in the UK, followed by Northern Ireland. Estimates reveal that women in Wales can earn an extra 19% in the public sector than they could through the private sector with similar qualifications. This pay gap is the largest in the UK and as cuts throughout the sector occur, Wales's unemployment is set to rise as the private sector will not be able to 'soak up' the newly unemployed; since 2001, the private sector has been declining in terms of the volume of workforce, especially in areas like Wales, which has a considerable number of small businesses.

Women in Wales can earn an extra 19% in the public sector than they can in the private sector.



80% of ethnic minorities in the UK are under 25

Race for Opportunity

Colourful Horizons

Today, Britain is one of the most multi-cultural nations on the planet.

From 2001 to 2009 the ethnic minority population in England and Wales has risen at a rate of 4.1% yearly, from 6.6 million to 9.1 million, and 80% of ethnic minorities are under 25 years old. The growth in ethnic minorities throughout the UK has implied a natural surge in these groups trying to enter into the workplace.

Alarming, despite a wish to be employed, one in seven ethnic persons aged 25 to retirement are unemployed. This statistic is lower than a decade ago, but still significantly higher than that for Caucasians.

The steady increase in ethnic diversity upon the shores of Britain combined with high birth rates for those communities now means that schools are representing races and tongues from all over the globe. Research from King's College London indicates that 57% of secondary school children in England are from backgrounds that are black, Asian or other non-white. In some boroughs of London this figure is as high as 80%. In turn, there are more minorities within the higher education system: admittance of these students has more than doubled in the last decade.

Workplace environments throughout the UK are already ethnically diverse, yet as they become more so, understanding how ethnic minorities

efficiently and effectively work, will make all sectors more productive. Organisations can benefit largely from language and culture differences as well as an entrepreneurial spirit. A higher than average statistic illustrates this: 20% of the working Asian population are self-employed.

There seems to be no argument that the public sector is an important employer to minorities. Of the growing ethnic communities in the United Kingdom, almost 33% are employed in the public sector. The breakdown of where these employee works varies: 10% are civil servants, 5% are in the police service and 41% of NHS doctors are from an ethnic background.

Disappointingly, a study of all major ethnic groups including white Britons showed that almost 50% believed that the police had racist elements. More than a fifth of all surveyed said they had been offended by a racial remark in their workplace. Also 44% expressed that they believed a career in politics was unapproachable due to perceived racism.

41% of NHS doctors are from ethnic backgrounds while 20% of the working asian population are self-employed

57% rise
in black, asian or other non-whites in English schools over the past 10 years

King's College London

The Feminine Workplace

Throughout Europe, the UK has the fourth highest employment rate of women after the Netherlands, Finland and Estonia.

A staggering 65% of the public sector's workforce are women, yet over the last decade there has only been a slight rise in the number of women at work in the UK.

Seven in ten employees within education, health and public admin are women *Economist*

A refreshing change is the number of board members and senior manager positions now held by women. Seven in ten employees within education, health and public admin are women.

What is currently evident is that women are misallocated and underutilised. One in two women are working in low paid, part time jobs. And 500,000 UK women are qualified in science, engineering or technology, but two-thirds of those do not work within those sectors.

Although the British female employment rate is high, the gender pay gap is currently the largest in Europe. Our culture allows women to earn less than men from the age of 18 in every occupational group. Women earn 82.8p for every pound men earn. This translates to women effectively working November and December for free. There has been a culture shift over the last several decades, however. It is incredible to think that millions of women who only a few decades ago

were once financially dependent upon men are now taking their economic security into their own hands and flourishing in professional careers.

Of significance is the mentality of young women. The undergraduate male-female ratio is increasingly feminine and is now larger than it has ever been, rising co-efficiently with the growing service sector. Manufacturing was once a large contributor to the GDP, but now that brain has prevailed over brawn, women are achieving more in their careers than ever before.

Not surprisingly, women are delaying the process of starting a family in order to achieve career goals. Women are marrying later (average age 30) and falling pregnant later. The average in 1972 was 26, but today that average age has risen to 29. In a culture shift, the number of "house husbands" has risen by 115% in the last five years.

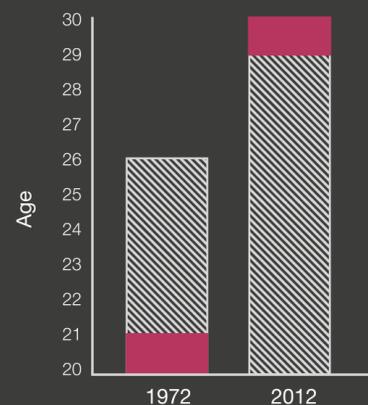
Figures now show that more women are taking their rightful place in senior positions, but is it enough? Females hold 22% of executive positions, making an 180% increase over the last decade. But at the current rate of change, it will take a staggering amount of time to create gender-balanced boardrooms. And alarmingly, the public sector lags behind. Over the last decade many lower-skilled jobs occupied by women have been outsourced to the private sector, creating the largest female-unemployment levels for 25 years.

115% rise in house husbands over the last 5 years

82p

For every £1 earned by a man, a woman earns 82p

■ Women's average marital age
▨ Average age of first pregnancy



Energising the Public Sector

The public sector is a hot bed for debate, a breeding ground for disputes and raging trade unions. The sector's role itself is a positive one: daily, it saves lives and supports livelihoods, but due to decades of unrest the overall outlook of the public sector is a negative one. The "clock in, clock out" culture refers to employees who are trained in an industry that lacks dynamism and pace.

Public sector workers strike far more often than those in the private sector. Since 2000, the number of days lost to strikes, per worker, has been 30 times higher than in the private sector, even though public sector earnings have risen faster.

57% of businesses were 'not at all interested' in hiring public sector employees

Financial Times

Our newspapers are filled with government cuts, rising unemployment, slow economic growth and trade union strikes. The British public sector brand is wounded. This is reflected by the perception of its workforce. Challenges that face sector management are high workloads, bureaucratic attitudes and an unmotivated workforce, according to the Institute of Leadership & Management (ILM).

while industry and culture roar ruthlessly. Due to its size, how can we expect anything else? Six million Britons are employed within this organization, and with politicians competing with one another every four years, why would they take a risk in tackling this monumental task?

Many suggest that its workforce are unmotivated or have been numbed by the "clock-in, clock-out" culture. Decisions are made without them, so why should they feel a part of the process? The issue is progressing, however. The public sector is more commercial than it was, borrowing entrepreneurial qualities and innovative traits from the private sector.

Now is an ideal time to change the 'job for life' mentality that can lead to a loss of productivity. With the public sector shake up that has been occurring over recent years, it seems vital to change core principles. Public workspaces are evolving and it's important that so do the inhabitants.

Public perceptions of the sector are hugely damaging to its inhabitants. A major report from the British Chambers of Commerce has indicated that four in 10 UK companies would not consider hiring former state employees, implying that they would not make the right 'cultural fit'. This is business related thinking rather than personal heartlessness; companies interviewed said that it makes sense for their organisation to construct a workforce that doesn't need to be retrained.

Since 2000, the number of days lost to strikes, per worker, has been 30 times higher in the public sector

Financial Times

Myths and misconceptions certainly exist regarding sector management and employees within them, but are any of these true?

Many say that due to set budgets, the sector is inefficient in comparison to the private sector. A maze of red tape faces every application or decision, which can take a significant amount of time.

If the private sector were a sports car, many would see the public sector as a 1930s double-decker bus. Change needs to take place, innovation needs to be injected, but the bus seems to move slowly,

'Public Sector Commissioning' is an intriguing trend sweeping the governing state at present. Outsourcing is now a common practice in the sector and it's not seen such a surge in contracts since the 1980's. Prisons are now being run under private contracts along with the police force having strategic partners. On the one hand this creates dynamism and innovation, but on the other it allows services to be run by the lowest bidder, weakening the service and investing in unskilled lower paid staff.

If you were to envisage a public sector workspace as rows upon rows of stationary cubicles with a sprinkling of unapproachable offices, you are visualising offices of a previous decade.



Today's work habitats, in contrast, can promote collaboration and flexibility in work habitats in any sector. The public sector, however, in times of austerity, may face budget constraints that mean periods between environment updates can be long, and may have to face revolutionary leaps.

It can be reassuring to have surroundings that we can familiar with, and comfortable with. Updating habitats may be difficult to justify, but for organisations to truly reach their potential, workforces need a variable, dynamic environment.

Over a stage of working life, environments in which we work need to evolve. What worked a decade ago is not as efficient as what works now. Organisations and individuals can evolve with the

Spaces within our work environments are changing quicker than they ever have before.

space around them, which can be inspiring and motivating, easy to use and comfortable in a new way.

It can indeed be challenging to unveil change on individuals who are used to their surroundings, or those who are at the latter stages of their careers.

15% of private sector workers are aged between 16-24, compared to only 5% in the public sector. Similarly, 44% of the public sector's workforce

are aged between 35-49, compared to only 38% privately.

As you read this, architects, product designers, and nano-tech engineers are all collaborating to create stimulating and intelligent habitats for a contemporary workforce, releasing the physical self from the desk while keeping your functions work focused is the leading aspiration for today's space designers. Encouraging inhabitants to use innovative, alien spaces is a task in itself. An employee who is comfortable with his/her environment, and has been for the last 20 years, will find psychological barriers to embracing newer ways of working.

The gauge of success used to be based on the size of your personal seclusion. The Public Sector workplace has changed.

The public sector needs guidance with changing working environments more than any other sector due to the lengthy periods between workplace gentrification. Because of this, inhabitants are more likely to become attached to their surroundings. Significant guidance and support for a space's legitimate use is needed; encouragement combined with example setting from senior level staff is vital for the success of collaborative solutions.

A generational gap exists in terms of workplace goals and solutions. Employees who began their career in the 1980s would consider a corner office as a sign of status and gauge of success, but unfortunately the size of the office may also match the magnitude of seclusion from other staff.

In today's public sector, managers are leaving their cocoons and entering the 'floor'. A number of roles within the public sector require substantial stretches of time seated at a desk and computer within a typical office habitat. Developments to these workspaces are happening, there is

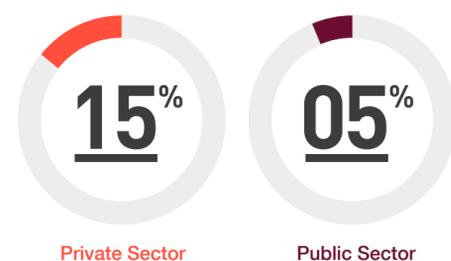
acknowledgement that productive work can take place away from the desk for many job roles. New ways of working are implemented less frequently in the public sector than other industries, and as a result employees may feel reluctant to use unfamiliar installed work areas. Although they may be more dynamic and layered, research has uncovered that some may not feel comfortable using these areas without proper encouragement and acceptance by staff. Guilt was named as a component, as individuals said they would not like using breakout areas within sight of desk spaces. They felt that coworkers at their desks would assume those in the breakout areas were not working, since they weren't at their traditional station.

Inhabitants away from their desk are still able to be productive despite certain beliefs in the Public Sector

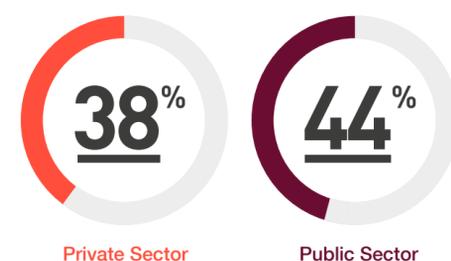
Younger generations within the work environment are more likely to be enticed by these spaces as a result of experiencing something very similar in their educational background. Younger employees in the public sector, however, may hold entry-level positions and look to senior colleagues to lead by example. If senior members of the workforce team are seen to be adopting more collaborative, softer ways of working, then real change can begin to take place.

While conducting research within the public sector, one particular case study illustrates the challenges within the sector with embracing new ways of working. A member of staff was reported to senior management for being unproductive at work, the individual was accused of spending excessive time in the cafeteria. When the issue was brought to the attention of the individual, it was discovered that he had been sending emails, making phone calls and conducting other roles of his job while enjoying a cup of coffee. It may take some time, but with some effort and thoughtful direction, these areas will become acceptable workplaces.

Percentage of workforce aged between 16-24



Percentage of workforce aged between 35-49





Cultural Cocktail

The UK's workforce is constantly diversifying and religion plays a vital role in today's work environment

Religion	United Kingdom	London
Christianity	55%	49%
No Religion	40%	38%
Hindu	1%	2%
Jewish	1%	3%
Muslim	1%	4%
Buddhist	0%	1%
Sikh	0%	1%
Other	2%	2%

Our history has allowed ethnic minorities with varying religions to live and work peacefully within the United Kingdom. Certain religions need provisions or working practices to cater for their spiritual beliefs, so employers need to attain knowledge about cultural variants and act accordingly.

The spiritual makeup of the nation consists of beliefs from all over the globe. According to a YouGov census, 55% of UK citizens are Christian while 5% are Buddhist, Hindu and Jewish, and 40% of the population are not religious. Organisations need to actively engage with such an important cultural differential. Open and tolerant workplaces can enrich other employees' lives as well as improve recruitment and retention.

Many aspects of religion differ, and those differentiations need to be considered however large or small an organisation. For example, some beliefs have distinct prayer times. Currently, there is no compulsory requirement to provide facilities or time for prayer, but many workplaces provide a prayer room or common staff area. The correct environment has to be provided for all faiths in this ever diversifying economy. Faith discrimination can have negative effects upon workplace morale and cost the organisation in future. Other examples of religious practices that need to

be taken into account may include food and fasting, holy days and religious dress. Many faiths differ and although it is not legally required that a workplace accommodate religious variables, it is important that cultural needs be considered. The public sector provides knowledge and shows understanding in regard to religious practices, but smaller organisations have to act responsibly as well.

Somewhat similar to religious belonging, professional belonging is a key part of our identity. We invest so much time at our workplaces that for many of us, work is more than a means of subsistence. At this moment in time, as a collective society we have strived to reduce cultural and religious discrimination. It is difficult however, to accommodate a 'one size fits all' practice. A balance needs to be struck to create an environment that is concise and compassionate regarding spirituality, while lessening the impact on business operations and inconvenience to other employees.

"Asking someone to leave their belief in God at the door of their workplace is akin to asking them to remove their skin colour before coming into the office."

Archbishop of York

Quick Read Insights

- 65% of the Public Sector workforce are women.
- Education is the largest state employer with a workforce of 1.63 million.
- Over a year, Public Sector employees work 12.5 days less than those in the Private Sector.
- Employees with a degree can earn 6% more wages in the Private Sector.
- 80% of ethnic minorities in the UK are under the age of 25.
- 57% of secondary school children in England are black or other non-white.
- Wages in Wales are the lowest in the United Kingdom.
- Four in ten private companies would not consider hiring former state employees.
- House husbands have risen by 115% in the last 5 years.
- The Public Sector workforce has a higher average age than that of the Private Sector.

Finance

Number of Employees

1.1 million

10%

of the UK's GDP is produced
by the Financial Sector

The financial sector contributes more tax receipts than any other sector, approx £63bn.

PwC

33 million

Britons are now signed up for online banking

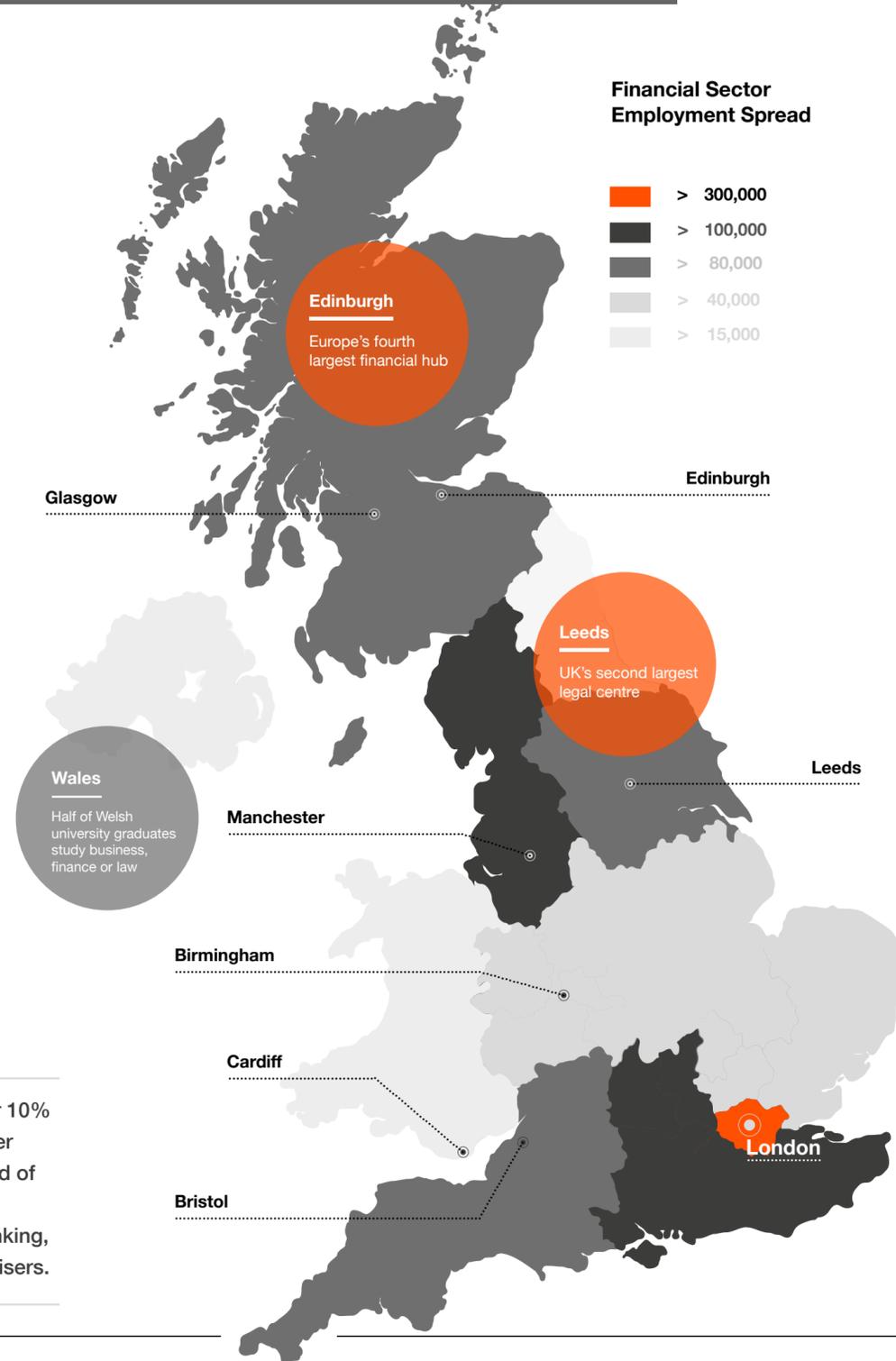
£230 million

daily pay-outs by insurance companies

251 foreign banks

251 foreign banks in the UK, more than in any other country

The UK finance sector accounts for 10% of national GDP and employees over 1.1 million Britons, and is comprised of financial services such as retail banking, insurance, investment banking, building societies and financial advisers.



London may only occupy 33% of the financial workforce but it produces 95% of the sector's revenue

City Of London

London, along with New York and Hong Kong, is one of the largest financial centres on the planet.

The economic crisis of 2008 and 2009 demonstrated how vital this sector is to the both UK and global economies. In 2011, the finance sector contributed £63bn to the UK government and while London may only occupy 33% of the sector workforce it produces 95% of the revenue. Those statistics make this sector the largest contributor to the UK's GDP.

London, New York and Hong Kong are the top three global financial centres. One-third of the UK's financial services employees are located in London, in The City and Canary Wharf. Other UK financial hotspots include Edinburgh, Manchester, Leeds and Bristol: these are dwarfed, however, in comparison to London.

Globally, London's time zone allows it to become a midway point between the US and Asian financial centers, and this factor has helped London to grow into the largest financial district in Europe.

Another reason why London has thrived in this industry is the far-reaching reforms of 1986, which transformed the stock exchange and secured London as a centre for trading international equities. As the weight of the global economic activity shifts to Asia, it is vital that Europe sustains an epicenter for finance. The eurozone would prefer to replace London with a unified European centre in Frankfurt, allied to Paris. Within Global Financial Leagues, however, Frankfurt languishes in 16th and Paris in 24th, making it less feasible to do so.

The City and Canary Wharf have become economic clusters, and organisations benefit from this. Having international banks, insurance and law firms in such close proximity to one another is proving healthy for business.

The beehive of London's finance district allows for cross pollination across the sector, and the elevators,



cafés and restaurants of the square mile are abuzz with shared opportunities. This landscape allows businesses large and small to take advantage of all the services that this 'hive' offers. As the district increases in mass, its draw only becomes stronger.

The district nurtures talent that underpins the hive itself. International firms located in London can draw on a specialist workforce, further enhancing enterprise.

Scotland is the second largest financial hub in Britain and is headquarter to some of the UK's largest banks, such as the Royal Bank of Scotland, Lloyds Banking Group, Clydesdale, Tesco Bank and Virgin Money.

Districts such as Edinburgh, Manchester and Bristol prosper within their regional economies, and specialist services attract international corporations. Local universities provide premier financial education programmes, supplying companies with an excellent talent pool to choose from.

Regional financial districts offer specialised services. Edinburgh, Manchester and Bristol prosper within their regions.

Despite the contributions to our economy and society, the sector has faced public scrutiny in the years following the 2007-08 financial crisis that brought economic instability around the world. The cause of the meltdown centred on the impetuous bankers and investors who fill our financial sector. Perilous investments, overzealous lending, complex and little understood financial innovation has led to financial workers bearing the brunt of the nation's anger, and the reputation of the industry has suffered.

Recovering from Disaster

1.3 million Britons were made redundant in the recent recession. Somebody needs to be blamed, of course.

The financial sector contributes more to the UK economy than most other industries. Tax receipts of £64bn and a 20% share of the total national income make the sector a formidable force. The success of the UK's financial centre and its ability to generate jobs and income is enviable to other nations around the globe.

It's understandably argued that the UK needs to look after the City. It is one of the success stories of the UK PLC, and illustrates the fact that a medium sized country can achieve greatness in specific and perhaps unexpected areas. It's important to reinforce and encourage this success, not undermine it.

As the UK suffered with the rest of the world, the government and the media pointed to banks, firmly laying blame for the crisis at their door and creating a villain for taxpayers.

As unemployment rose, government spending decreased, house prices fell, and some banking institutions floundered. British taxpayers were asked to save the banks from bankruptcy. The media reported that financial executives across the City had a 'business as usual' mentality, which prompted politicians to target them as scapegoats, using imagery of the 'fat cat' banker. Protests and movements emerged which illustrated public discontent with the industry. The most well known protest was 'Occupy London', and a group camped at St. Paul's Cathedral for 218 days.

The bonus culture of the financial sector draws public criticism, but what is not understood is the need to attract the brightest of talent in order to create the most dynamic and powerful financial district on the planet. All the blame doesn't lie with the banks and

the bonuses of successful individuals. As a consumer collective, many borrowed money with no secure means of paying back these loans, yet this fact is shadowed by the predominant idea that the financial crisis was the result of irresponsible and greedy bankers. A lack of public trust in the industry has resulted.

Indeed, companies made errors which led to catastrophic events, but the sector overall is one of the UK's strongest, and without it our nation would not have seen the growth it had prior to the crisis.

The rate fixing that led to the crisis was unearthed in 2012, and it was concluded that a multi-billion dollar commercial bank had deliberately raised and lowered its interest rates, disregarding industry regulations. This collusion further adds to reasons the public, politicians and media distrust the industry.

Many countries are envious of the sustained success of the United Kingdom's financial industry

In the later stages of 2012 it seemed the UK economy was finally on the verge of recovering from the largest double-dip recession in more than 50 years. The economy saw significant growth in the service sectors allowing the economy to rise up from its previously flat state. As the UK is so closely linked to mainland Europe, there is little wonder as to why our economy has spluttered in recovery. The single currency had its problems in 2012 and while Germany can enjoy a healthier recovery than the UK, other nations in the EU such as Spain and Greece all face prolonged negative growth.



One third of Tesco's transactions now pass through self-checkout systems

The Independent

Automation Nation



self-service checkout stations in the UK



of Britons have admitted to cheating the self-checkout



the number of McDonald's restaurants due to introduce self-servicing interfaces

The rise of clever machines over humans in Hollywood films are seen as impossibly futuristic, yet we connect with automated systems every day in the present.

Manufacturing has used robotics since the 1980's, and the automation movement has swept across the UK ever since, occurring in airports, libraries, supermarkets, service stations and post offices. Tesco has 2,975 retail outlets in the UK, and one third of the retailer's transactions now pass through automated self-checkout systems.

Systems have been introduced by retailers and organisations, and in some cases replace human beings. Replacing a cashier with a self-checkout system will initially have cost implications, but over time the system will save the organisation money.

Consumers are expected to input actions and carry out tasks, saving multi national companies money. Some consumers are willing to sacrifice scanning and bagging by another person, if the process makes their lives more efficient.

Along with online banking, self initiated computers in banks and building societies decrease the requirement of staff. The automation equation does have adverse effects on the workforce being replaced by these systems.

The workforce of building societies in the UK are comprised of 63% female, and a reduction in staff because of automated systems has helped contribute to the highest unemployment rate for women in 25 years.

The trend is only going to continue. It is true that there are consumers who will always prefer

cashier controlled environments and will choose that service option if provided, but some consumers, especially those from younger generations, get less frustrated with the systems, as they have come of age in a time when these touch screen solutions are predominant in many settings.

McDonald's, the world's largest fast-food restaurant, plans to distribute food even faster. Across their 7,000 European outlets, touch screen terminals have been given the green light to allow customers to order and pay electronically. The system will make the restaurant process more efficient, and will also allow the company to increase their profit margins. Customer may embrace this change, but may not consider the employees who may lose their livelihood.

In contrast, Albertsons, a popular American supermarket chain, is reinstating cashier-controlled tills after automated systems were found to be detrimental to their business. Albertsons found that customers did not like the lack of human interaction within stores, so self-checkout lanes have been replaced. The company said that the reevaluation of their services will allow members of staff more working hours and will build and retain customer loyalty.

Automation is now an intrinsic component of our economic environment. It may be that within certain businesses, the human touch will remain a selling point in this customer service world, yet language processing within websites and phones will lead to further developments in the automated service world.

Online Banking

Nationwide were the first to introduce Internet banking to its customers in 1997.

More than 15 years later, the popularity of the online service has skyrocketed: over 33 million Britons are using equivalent online services.

Online banking is faster, cheaper and more efficient than traditional banking, but is it more reliable? There is no doubting the convenience that online financial services offer, but many consumers retain anxiety over security measures. In 2009, Internet fraud peaked at a cost of £60 million. In the US the same year, that figure was \$560 million.

and older are hesitant to embrace online systems. Many customers believe that by keeping their transactions offline, their deposits are protected and more secure.

For many customers, though, the positives of banking online far outweigh the negatives. An entire financial portfolio can be managed from a mobile device around the clock, meaning there are no surprises when a monthly paper statement is received or when an individual pops in to the bank. Opening times used to dictate when transactions could occur, but now transactions can happen any time of the day.

In the UK, 84% of people are already online. Growth within the Internet banking sector is due to grow, a staggering 72% of Britons aged between 24-35 bank online. This indicates that online banking is now seen as a necessity.



of the nation is online

Banks are taking increasing measures to reduce online banking fraud. HSBC and Barclays both offer customers virus protection for their personal computers when they initiate an online account.



of online customers use their smartphones for financial transactions



Internet fraud peaked in 2009 at £60 million

Change can be difficult to instill in some customers who are comfortable with the traditional, face to face banking system, and some in the Boomer generation

Smartphone sales would imply that more of us are accessing financial accounts on our mobile devices, yet Ernst and Young statistics show this is not the case. Only 5% of online customers use their smartphones for financial transactions, and only 2% upon a tablet.

72% of Britons aged between 24-35 bank online

Financial Fraud Action

Quick Tech,

Quick Finance

In the United Kingdom, 307 people are declared insolvent or bankrupt every day as total personal debt stands at £1.5 trillion. Credit Action

Total personal debt in the United Kingdom stands at £1.5 trillion. Contemporary culture encourages an indulgence in the consumption of material possessions, resulting in too many living beyond their means, and alarmingly, 307 people are declared insolvent or bankrupt each day.

Many Britons think nothing of taking on huge mortgages, and individuals struggle to gain a foothold on the property ladder without borrowing. Many first-time buyers would struggle to generate enough funds to purchase a home outright.

Aside from mortgages, the amount of personal consumer debt that has been amassed by Britons over recent times is concerning. Average consumer borrowing, which includes credit cards, motor and retail finance deals, overdrafts, and unsecured loans stands at £5,973. The figures become increasingly alarming when mortgage debt is included, and in 2012 the average household debt amounted to £53,912.

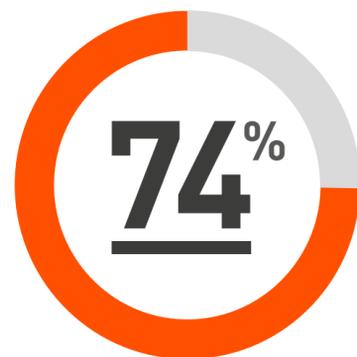
Personal debt is one of the most severe social problems facing the UK. We live in a 'now' nation, and our culture has become more materialistic. The 'buy now, pay later' mindset and the consumption of material possessions led to dramatic increases in personal debt, as individuals bought goods they could not afford. Instead of saving for big purchases, individuals will buy products to sustain a certain image or lifestyle, despite the difficult situation it places them in financially.

Many may believe that buying high-end goods will help them gain social acceptance, and this plays directly into the lender's hands. Credit cards are joyfully convenient, but they allow users to pay for products and services without having the funds to repay the debt. Spending can quickly spiral out of control, and monthly repayments can become overwhelming to many Britons who borrow haphazardly.

During the economic meltdown, unemployment rose, yet loans and credit card bills still had to be paid. The UK debt situation worsened as millions scrambled for safety, but the damage had been done. Becoming highly indebted can have serious psychological effects, and the stress of harrowing personal finance troubles has significant implementations upon home and work life.

Citizens living in government provided housing are more than twice as likely to have been in debt than those who do not

According to a recent study conducted by The Bank of England, 74% of British couples find that money is the most difficult subject to talk about, and 35% have been kept awake at night due to financial issues. Low income households, who contribute to around half of the debt issue in the UK, are the most vulnerable. Citizens living in government-provided



of **UK couples** find that money is the most difficult subject to talk about, **even more so than sex** FSA



4474%

'TXTLOAN' APR after date of repayment

£53,912

average household debt including mortgage

Credit Action

housing are more than twice as likely to have been in debt than those who live in private accommodation.

An argument for the cause of this social misjudgment could be blamed on financial institutions. Before the economic downturn in 2008, respondents to a YouGov poll indicated that it was too easy to gain credit and accumulate debt. Banks are not necessarily targeting vulnerable people, but aggressive credit marketing with little detail regarding the cost of borrowing may add to the problem.

Within the same poll, 86% of people agreed that debt advice should be given at a secondary school level, and 92% of respondents proposed that guidance be provided for those considering bankruptcy.

It is clear that certain spending and borrowing tendencies within the British culture need to be addressed.

We are not alone with our personal debt issues. Denmark, the Netherlands, Norway and Sweden have a greater percentage of household debt as a share of disposable income than the UK. But, our personal liabilities are worse than all other G7 economies, including Japan, the United States and Germany. In fact, our lending situation is more than twice as bad as Italy's.

Personal lending in the UK is the largest of all the G7 nations. Double that of Italy's.

As the commercial banking sector still has its belt pulled relatively tight, the market of short term loans has seen tremendous growth. These 'payday loans' have been popular since the financial crisis, and in the last four years, the number of people taking out these loans has quadrupled to 1.2 million.

With high rates of interest, the industry is thriving, and conventional commercial premises are not even needed. 'Txtloan' lends customers up to £1,000 for 31 days. Very little credit information is needed for a loan application, the process simply requires bank account details, an email address and a working phone number. A 'Txtloan' customer will pay £17 interest on every £100 paid back in 15 days, at about 4474% APR. Charges and fees will soon amass if loan repayments don't occur, furthering the debt issue.

Payday loans have quadrupled in in the last four years to 1.2 million annual users

In some US states, these payday loans have been prohibited, and the industry is deemed to be detrimental to socioeconomic growth. High street payday operations such as The Money Shop and Cash Converters have been present in the UK for many years. The use of online businesses such as Wonga has surged in popularity with very little regulation. Although the payday system does serve a purpose, that purpose can sometimes lead consumers into a monetary mess. The speed with which online vendors can tempt people with quick cash is cause for concern.

Glass Cathedrals: The Financial Workplace

Global skylines are dominated by banking branding. Their decision to go skyward has effected their workplaces dramatically.

There are many varying workplace practices and work spaces in financial sub sectors such as investment banking, personal insurance, accounting, etc, and it would be unintelligent to analyse them collectively.

Gender balance fluctuates in these sub-sectors. For example, within building societies, women constitute 67% of the workforce, but that statistic is reversed when attention is focused on fund management. Similarly, there is a disparity between the majority age group between the two genders. Women throughout the entire sector are predominantly aged under 25, while the age of the majority of men is between 30-34. This indicates that in years to come, women will have an increasing presence of power within an industry that has been dominated by men for centuries.

In picturing a financial trading floor, many of us would conjure images of bright digital banners and raucous men waving their arms trying to gain leverage over the next man. The work environment isn't always as high octane as that, and when the smoke clears and trading closes, employees return to their desk where they are greeted with a series display monitors, finding themselves fixed in position like a train driver or supermarket cashier. Satellite working or breakout

practices simply do not apply here or in other areas of the financial sector where desktop displays and a fixed workspace are required.

The trading room is unique and unlikely to change in the near future. The IT requirements and support needed for this space is overwhelming, as most vertical faces will have digital screens mounted upon them. Working hours are elongated, as financial districts around the globe work across time zones. While employers in other sectors have recognised the benefit of allowing individuals to apply themselves away from the office, many financial service roles cannot implement this ideal.

Trading floor staff are fixed to displays while working hours can be elongated due to time-zones.

A century ago, the tallest buildings across our landscape would have been cathedrals. That has all changed. Multinational banks and other financial institutions have dwarfed the cathedrals of old, preferring glimmering skyscrapers. Canary Wharf is a testament to the imported practices of America. Towers of 50 floors and more have been the finance

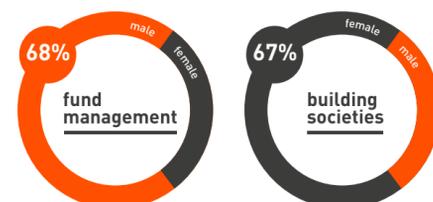
fashion for decades. Sky towers with nearly identical floor plans across stories make it easy for large organisations to replicate workplace strategies around the globe.

Canary Wharf is now a testament to the North American financial footprint. Towers soar to maximise space like no other sector.

What kind of an environment can be created hundreds of metres from the earth? We know that industries adopt certain workspaces to suit their specific practices, pharmaceuticals have large greenbelt laboratories, while communication agencies plonk themselves in 'cool' urban centres. The finance world sees fit to congregate its workforce into a singular tall tower and brand it for all to see. A 'floor' culture comes into effect. If a department is situated on the 31st floor and the venue for a monthly meeting is on the 32nd floor, then any individual's interaction with any other floors or personnel upon those floors will be limited. Collaboration and creativity can be thwarted by this limited interaction. Although they allow space for large organisations to headquarter efficiently, duplicated floor plans could lead to a static and somewhat sterile space without efforts to infuse personality and inspiration.

Such effort has been applied at Capital One in Nottingham. Indoor grass areas with deck chairs and sand pits are unexpected breakout spaces for a financial institution. The mentality to change the way financial centres operate internally may affect the way they operate externally. At this location, garden sheds are provided for private meetings, and fresh organic fruit can be crushed to provide the staff with a healthy snack. Large, open auditoriums of glass house the hundreds of staff who occupied the space, showing that stereotypes can be challenged with innovative spaces.

Due to economic uncertainty we understand that many organisations are now making great efforts to condense their office portfolios to one singular work habitat. Not only will this reduce costs it will fuel a more collaborative and unified workforce. However, condensing many offices into a singular one does create 'space' issues. Environments need to be intelligently crafted to maximise inhabitants productivity. We have more employees working from home or from third spaces now that ever before but square metre per employee will be compromised due to the merging of spaces. Reducing the number of secluded offices and an increase in collaborative, flexible spaces is a real trend evident within the financial sector.



Quick Read Insights

- The financial sector is one of the top contributors to the UK economy and one of only a few global centres.
- Majority of women in the finance sector are aged under 25.
- Majority of men in the finance sector are aged between 30-34.
- Our capital has two large financial hubs, Canary Wharf and The City. Between them they occupy 33% of the financial workforce but produces 95% of the sector's revenue.
- Workplace attire has generally become more casual but the finance sector remains formal.
- 74% of UK couples find money is the hardest subject to talk about.
- 314 people are declared bankrupt everyday and the payday loan sector has thrived.
- 72% of Britons aged between 24-35 bank online. While the risks remain, Internet fraud peaked in 2009 at £60 million.

The City & The Suit

Workplace dress has been evolving for many years but there is severe disparity between what is acceptable across the industry sectors.

With our workplace environments becoming softer and our business relationships becoming warmer, are we dressing accordingly?

There was a time when suits and ties were compulsory in the workplace, no matter the industry, but workplace attire has been changing in recent times. 'Smart' has morphed into 'smart casual', and the age of the open collar is upon us. Organisations have relaxed policies on dress in order that employees can work effectively and comfortably.

psychological acceptance that dressing more comfortably doesn't imply unprofessionalism.

The start-up era of the 1990s ushered jeans and t-shirts into the workplace. Large tech companies helped create a mobile workforce, and emphasised that looking smart isn't as crucial as being smart. The most innovative and



"In my industry, it's vital to present yourself with the best of your ability. People don't take long to judge you and so inappropriate attire can have negative affects."

Jay Heisdal, Property Manager

Dark suits and crisp ties are still alive and present in many industry sectors, but while professionalism is essential, how we present ourselves at work is becoming increasingly more varied. The 'uniform' suit and tie of a City stockbroker may be just as appropriate as the open shirt and jeans worn by an advertising creative. It isn't the specifics of how workers dress that is important, however. It's the

creative workplaces are littered with people who dress 'cool' and uber casually, which is as appropriate for that industry, just as ties and blazers are appropriate to the finance sector.

As technology has de-chained some industry workers from their desk and work spaces have become softer and more inviting, the same can be said for workplace attire. The parameters of

"I've always been driven and so dressing to impress has been something I've done for a long time. That will never stop."

Sam Writchley, IT Manager



"I work just as hard as I did ten years ago, the only difference is now I can wear what I want."

Chris Parslow, Sound Engineer

workplace attire have become greater, in turn making it possible for employees to dress more comfortably.

Insight gained from a case study revealed that when employees relocated to a contemporary work environment from a stale and dated one, their work attire changed instantly.

to colleagues or customers having assumptions about their personality or profession. Casual clothing can be associated with creativity and friendliness. Business attire would usually lead somebody to authority and competence.

"Looking professional is always important but I've noticed that my workplace has become more relaxed and comfortable, so has the dress code."

Jenny Green, Visual Effects Supervisor



The older work habitat of Ordnance Survey was built in 1969 and had had several remodels over time. The older space was dated and uninspiring, and when the decision was made to move, into a more contemporary and varied workplace. Interestingly, this change in environment also changed how employees dressed. In the old space, jeans, sports shoes and t-shirts had wriggled their way into the acceptable parameters of dress at the

Companies can introduce clothing parameters to which their staff have to comply but the essence of presenting yourself smartly or casually is a personal process. Dressing like your workplace superiors has always been a good way to gauge the appropriateness of your attire. But does this make you more susceptible to success? Of course it does. Looking as smart as possible while performing efficiently will bode well



"Being comfortable in the clothes I'm in makes me more confident to carry out the job I'm paid to do."

Pierre Maslow, Recruitment Consultant

organisation. The new space, however, inspired the workforce to wear shirts, blazers, heels and blouses, a clear example of how habitats can inspire and influence users.

Casual attire doesn't necessarily mean a casual performance. Dressing in a comfortable way leads to exactly that; comfort. There is no evidence that casual clothing affects the productivity or punctuality of the staff. Certain workplace fashions can lead

against others who perform just as well but pay slightly attention to their appearance.

It may not be proven that workplace attire affects the performance of employees but it certainly effects the culture of an environment. If the workforce are understanding of the goals of it's employers then that is surely the driver for attire. Every component of the 'brand' which includes the workforce, has to assemble a focused image.

"First impressions are everything. I put a tremendous amount of work into the way I look professionally."

Lisa Sutton, Media Account Handler



Technology

Number of Employees

1.5 million

09%

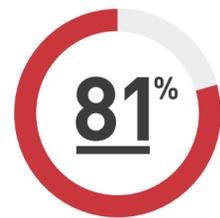
of the UK's GDP is produced
by the Technology Sector

44% of tech companies are situated in London or the South East

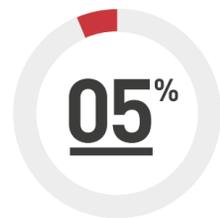
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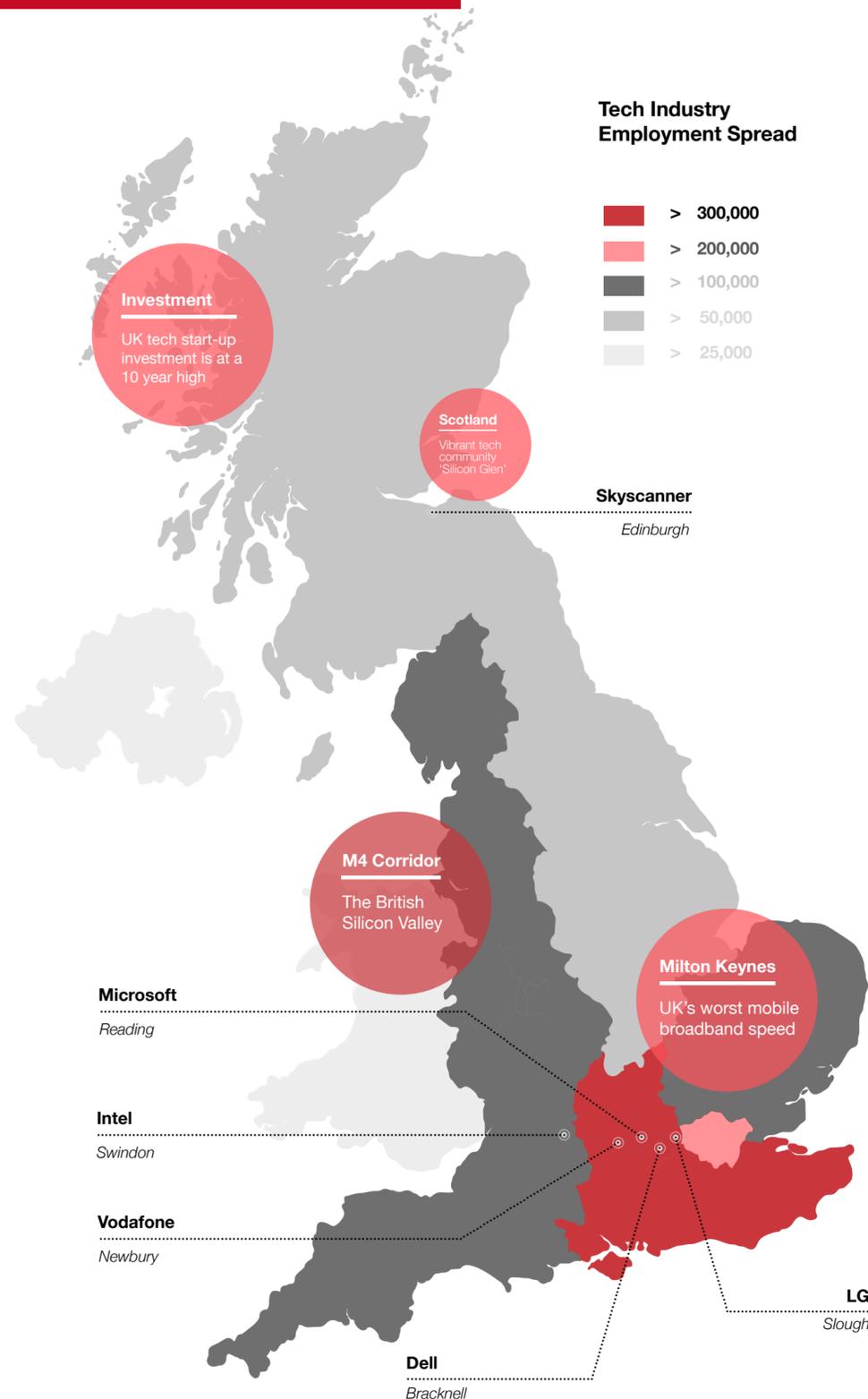
of Tech Sector employees are male



of the workforce are aged over 29



employment growth over the last 5 years



Seven of the top 20 companies in the world are technology companies

Technology has allowed us to work almost anywhere, any time – human beings now have a social and professional fluidity unlike any other time in history.

The advances made over recent times make this one of the most powerful and profitable industries on the planet. Over the past decade, global communities have become increasingly hyper connected; businesses and consumers, governments and citizens communicate instantaneously as our ever-dynamic environment redefines the term 'connected'.

Globally, seven of the top 20 organisations lie within the tech industry, with Apple currently the largest company in the world. Domestically, the industry generates revenue of £140bn, approximately 12% of our GDP. The size of the sector is also highlighted by its employment statistics. One in eighteen Britons are employed across 150,000 business, however the geographical distribution of those businesses is imbalanced. 44% are situated in London and the South East.

The tech industry is built and sustained on the replenishment of ICT graduates entering the sector, more tech students graduating in the UK than anywhere else in Western Europe. Graduates know they are safe in the hands of an industry that is growing. The UK is Europe's leading market for software and IT services, with an annual market value of £58 billion a year. Research by Microsoft indicates that this vibrant sub-sector will drive the creation of 78,200 new jobs across 2,500 new businesses in 2013 alone. Not that the software development sector needs a growth spurt, it is a global powerhouse, attracting £930 million a year in R&D investment from all over the world.

Cloud technology is also expected to grow on these shores from £2.4bn to £6.1bn by 2014. At the moment, 18% of small and medium enterprises use cloud solutions, but in the next 12 months a further 30% plan to utilise this service. It's the early adoption of tech advances such as cloud services that the UK prides itself upon.

Amidst the good news of this growing sector, a worrying trend is beginning to occur. Since 2002, there has been a 33% reduction in applicants to computing degree courses. This will eventually lead to a skills shortage that the industry can ill afford. To further compound the issue, the number of IT & telecom professionals under the age of 30 has dropped from 33% in 2001 to just 19% in 2011. A reason for the skills shortage is highlighted by the pure pace and dynamism of the industry. Colleges, universities or relevant 'training' practices are unable to keep up with the technological changes taking place within industry.

In 2001, 33% of IT & Telecoms professionals were under the age of 30. In 2011 that statistic fell to just 19%. e-Skills

One in eighteen Britons are employed across the tech industry

e-Skills

Believe it or not, the UK has a Silicon Valley of its own, in the form of the M4 corridor. Accessibility and proximity to London has allowed this vein of tech services to prosper even during times of recession – Intel, Panasonic, HTC, Vodafone, Microsoft and Adobe all claim a spot in this tech cluster.

It isn't just the motorway corridor that has a tech cluster – an area of east London is being heralded as "tech city" is comprised of both small but creative start-ups and the giants of the industry. Facebook, Cisco, Google and Amazon are located between the Olympic Park and Shoreditch. This 'city' is booming with over 700 digital companies, and with recent government backing, the cluster will continue to grow.

The UK produces more ICT graduates than anywhere in Western Europe e-Skills

Recruiting the Best

Organisations across all industry sectors need to be competitive in this fast moving, dynamic economy. Many factors may differentiate one business from the next, but a key constant remains the workforce within it. Finding and attaining knowledge workers is critical for an organisation to create, innovate and prosper.

A recent international survey conducted by Towers Watson concluded that nearly two thirds of companies are facing difficulties attracting top performing employees. There are many factors leading us to this conclusion but it isn't solely the education system. The misallocation of skills and under stimulated training programmes are just some reasons why organisations are struggling to find what they need.

manifesting innovation. Lively atriums of connectivity and comfort dissect work floors with colossal workbenches and seating units ideal for sharing.

The divide between work life and home life seems to have become blurred. Social activities and comfortable furnishings have moved into the workplace, while 24/7 phone calls and emails intrude on personal time. Attaining the correct work/life balance is important for knowledge workers and now, due to the fuzzy blend, they need to feel connected to their habitat more than ever before.

Technology has ultimately shifted from a tool that was used when necessary to an extension of all of us, and the world that we live in has become a constant stream of information. Workplaces that

Two-thirds of tech companies are facing difficulties finding top performing employees

Towers Watson

But simply bringing the brightest talent to your company doesn't guarantee the wheel will spin faster. Creating an engaging and motivating work culture is vital to the success and productivity of a company, and those who create habitats that inspire will give themselves a competitive edge over those who neglect the needs of their workforce.

During the 1990s, the 'dot-com' boom created a more relaxed and ultimately more creative workplace. Ping-pong tables, informal dress codes and flexible working hours all contributed to a playful and productive environment. These workplace components appealed to knowledge workers, people who think critically and creatively to solve business problems. Team collaboration tends to feature heavily within a knowledge worker's role, where group collaboration becomes a catalyst for innovation and the idea development. A transition from individual, fixed positions to open, softer spaces will aid this process and help businesses become an employer of choice.

One of the world's largest software manufacturers provides a workplace habitat with a focus on

embrace technology and the flexibility that it allows, will create an environment that entices and inspires those within it.

Within the tech sector, creativity and innovation has led to success, and it is important to express this type of mindset in work facilities. In fact, it is vital,

Google, Facebook, Red Bull and Pixar employees expect a certain vision and flexibility in their workplace.

considering the type of employees successful organisations wish to attract. Is it a coincidence that some of the most inspirational and creative work environments are housed at some of the most creative and innovative companies in the world? Google, Facebook, Red Bull and Pixar. Knowledge workers, and especially Generation Y knowledge workers, expect a certain amount of flexibility and vision in their workplace.

Online Security

It's true, we now use the Internet for everything, and why shouldn't we? We check our bank balances, book holidays, arrange dates and look up medical symptoms. Over 33 million of us 'regularly' use the Internet. The risks, however, are numerous: we leave crumbs of personal information on websites daily, home addresses, credit card details, birth dates and more, but we do very little to investigate the security measures in place to protect this information.

Computers can be attacked in various ways over the Internet. Viruses or spyware can allow criminals to scan your computer for personal information to be later abused. The UK Serious Organised Crime Agency estimate that online fraud is costing UK internet users £3.5bn a year. An alarming 11% of the UK's online community has fallen victim to online criminals in 2011 alone.

Unsurprisingly, it is the banks that have the most to lose. Their reputation for capital protection can be destroyed with one successful attack from cyber criminals. The most common types of attacks come in the form of 'phishing' or 'malware'. Phishing is a an email which appears to be from a bank or other services, urging individuals to continue to a website that looks identical to the genuine site. Unknowingly, victims will enter their personal information into the faux site with damaging consequences. 'Malware' is a virus that can be downloaded and installed on computers without the user's knowledge. This malicious software is then capable of logging your keystrokes and capturing passwords or other vital information.

Those aged between 35-44 are the most likely to have fallen victim, according to the ONS. Interestingly, Brighton claimed the highest number of online fraud victims, followed by Glasgow, Nottingham and Plymouth.

Brighton is home to the highest number of online fraud victims, followed closely by Glasgow

Just 17% of personal computers don't have protection software, making the anti-virus market in the UK profitable. Not as profitable as it once was, however. In recent times we have seen the performance and subsequent popularity of free antivirus software. In fact, 42% of protection programs installed are free, reducing the market for large brands like McAfee and Norton in half.

Online attacks can cause monumental damage. One of the most infamous hacking groups, LulzSec, have been at large for some time and claim numerous attacks on high profile organisations. In April 2011, the group stole personal information from 77 million Sony Playstation users, including credit card numbers, addresses and login information. In June of the same year, the group also restricted access to the CIA website; in 2012 they attacked Brazil's largest private bank, shutting down its online banking website. These groups cause chaos. Online security teams find themselves being reactive to their attacks rather than proactive and preventing them.

There is a cyber victim every 7 seconds in the United Kingdom ONS

Instagram had 13 employees when it was sold for \$1bn

Financial Times

Starting and staying Small

There's no doubt that the tech industry has evolved in leaps and bounds over the last 20 years. The mass popularisation of the Internet has allowed some companies to burst into life, and it's a different kind of life form than the 'offline' tech giants.

The revolutionary digital age hasn't been beneficial for all companies, however... In the 1970s, Kodak owned more than 85% of the photographic film and camera market. Over decades, they sold 800 million rolls of film, averaging 24 pictures per roll.

Kodak monopolised the market in its heyday, but today, there are 6bn digital photographs on Flickr and 200bn on Facebook. In terms of products and business models, Kodak and Facebook are polar opposites. Kodak didn't try to evolve, they manufactured and distributed products, employing 145,000 people in 1986. In comparison, Facebook currently employs 3,000 people. Yet, it is soon expected to have 1 billion users.

Another example of this evolving business model is Instagram, a photo-sharing mobile application which was sold to Facebook for \$1bn. Its value isn't the astonishing element, Instagram was gaining one million new users a day and was fast becoming a social giant in its own right, and was a clever acquisition by Facebook. What is astounding is that Instagram was launched in 2010 and has only 13 employees.

Times, they are a changing, continuously and relentlessly, giving rise to new products and ways to connect. The mobile application market, for example, has made meteoric strides in the past five years. In 2011, 31 billion apps were downloaded. Software developers can aid and manipulate consumers and their behaviour like never before, all from their bedrooms.

A similar story to that of Instagram, ngmoco Inc, an American video game developer only had 23 employees when it was bought by Japanese based DeNA for \$400m.

For a long time tech giants Apple, Google, Microsoft and Facebook have had disproportionate revenue compared to employee numbers. The services that these companies provide don't necessarily demand large staff numbers and the pension plans that come with them. Decades ago, the most powerful tech organisations were the ones that manufactured products, motherboards, televisions or desktop computers, sustaining large overheads in the growth process.



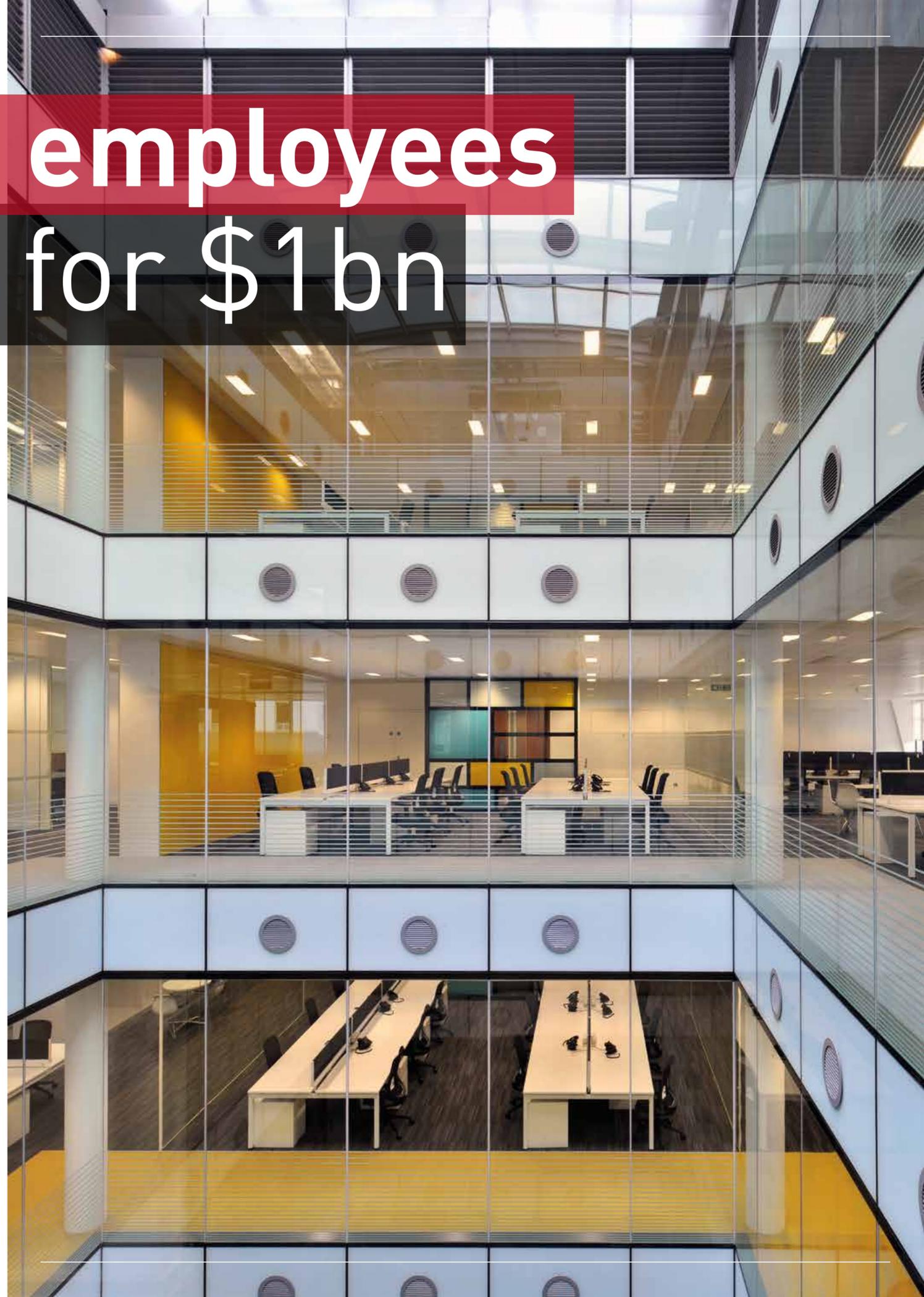
In the 1970's, Kodak owned 85% of the camera and film market



The amount of employees Kodak had in 1986



The amount of employees Facebook currently has



Where are the Women?

Women sparsely populate the technology industry, constituting only 18% of sector employment

e-skills

The UK tech industry is a thriving hotbed for innovation and artistry. It may be in its infancy as an industry in relation to other industries in the UK, but it certainly performs.

So how can an industry that oozes creativity only possess 19% female employment across the entire sector? Other arenas like the public sector boast levels of 65% female employment. A healthy gender balance within the workplace is essential for the success of an organisation. Males and females bring different skillsets to a business. Women tend to be more observant and collaborative, while men can be more direct and single-minded.

The tide, meanwhile, does not seem to be turning. Only 15% of applicants for computer science and other tech-based courses are female, a worrying statistic for an already disproportionate sector. Interestingly, the feminine 15% outperform their male counterparts consistently, suggesting that an increase in numbers on these courses would see an exponential rise in the talent pool for the tech industry.

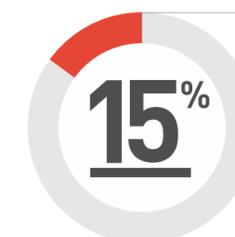
It can be challenging for women to pursue a career with a reputation for male dominance. A lack of female role models across the sector doesn't inspire fledgling academics to entertain the idea of a career in technology. Women within the sector feel they are being passed over for promotion in favour for male

colleagues, and statistics reflect this: only six women were included in Silicon magazine's list of 50 tech CEOs. Studies show that organisations with females at board level outperform those without, so why is there a tendency in the tech industry to neglect women?

A recent survey revealed that women who worked in the industry found their friends perception of the industry was 'geeky' or 'nerdy'. That preconception is unjust, the industry is one of the most creative and innovative around the globe, but may be a barrier to entry for women, disrupting the sector. The top three reasons that women apply for certain careers are salary, progression opportunities and flexible working environments.

The alarming lack of females in the tech workplace has prompted politicians to consider introducing quotas on the employment process. Norway enacted a law in 2008 requiring that 40% of the membership of boards in publicly listed companies must be female. Stiff penalties are in place if these rules are ignored.

Publicly listed companies in Norway are forced to allow women to occupy their boards, a 40% minimum requirement.



Only 15% of tech course graduates are women but those 15% consistently outperform their male counterparts

Guardian



The Tech Workplace

A Virgin Media report found that 69% of FT100 companies are prepared to offer flexible working policies as apposed to only 16% of small and medium enterprises.

The sector is as diverse as it is profitable and this diversity leads to a range of working environments

The UK tech industry has many aspects. Manufacturing giants, the likes of Panasonic or Dyson with thousands of employees across the country engaging in R&D, marketing and manufacturing. Contrasted by market changing start-ups, with no more than four employees located in a loft conversion. You will also find the telecommunication leaders with overseas customer service centres but you will also recognise the online social networks, with no more than 100 staff but over one million users. The sector is as diverse as it is profitable and this diversity leads to a range of working environments.

Working remotely is more accepted inside tech companies in comparison to other sectors. Management understand and trust the technological systems that are in place to make this viable. Working away from the office can make certain tasks more efficient, increasing productivity. Employee productivity is being measured differently, work efficiency is measured in terms of results rather than in hours spent at the office. In the summer of 2012, the company O2 ordered 3,000 of their staff to work from remote locations one day a week, whether that location was the sofa, coffee shop or even the gym. The company saw an increase in productivity and a slight reduction in overhead costs.

Current work culture tends to understand that even when the business day has ended, the need to remain plugged-in is infectious. We feel an insecurity and frailty when our phone battery dies or we lose

Internet connection, and the satisfaction we feel when we're back online is overwhelming, as a stream of emails, phone calls and tweets are bombarding our devices once more.

Telecommunications giant, **O2** ordered 3,000 of their staff to work from remote locations for one day a week.

The company saw an increase in productivity and reduction in costs.

In Germany, Volkswagen's 191,000 employees have a union that represents, and has negotiated terms whereby management have agreed to stop sending emails 30 minutes after the staff have completed their shift, and may only start emailing once more 30 minutes before next shift. A similar situation has arisen in Citizenship and Immigration Canada, where Blackberry devices are banned from usage between 7am and 7pm.

Creating a platform within a company to communicate with employees is essential for expressing the culture and values of that company. Tech companies seem to embrace this, which in turns leads to unification of the corporate message and a foundation of mutual goals.

When a positive execution of internal branding is introduced it can inspire its beneficiaries and become the ultimate retention tool. When weak internal communication is in place, it can lead to employee defections and indistinct messages, and be detrimental to the business.

But internal branding isn't just the accumulation of physical workplace components. It is the culture that is cultivated to effectively streamline the business. Training, workshops, competitions, social events all contribute significantly to a coherent brand strategy. Harnessing a 'vibe' is essential for cutting-edge tech companies. Developments within technology often have a large reach and positive impact on the marketplace. These organisations find it vital to create an atmosphere that resonates fast paced positivity.

The tech sector can be an engaging one to work within. Their habitats tend to be a testing ground

for products and software not yet to be released. The industry seems to be the initial adopters of new workplace communication tools due to the relevance of those tools to the industries growth. For example, IBM has incorporated it's very own Beehive Social Network within its work environment. It allows developers of the product to explore any short fallings or undiscovered benefits. The innovation allows employees to have a constant connection with co-workers and has been a success. Over 280,000 connections have been made, while nearly half a million photos have been shared. The Beehive is now being installed within other multinational organisations.

Netflix has an unlimited vacation program where employees take as many holidays as necessary in return for an aggressive performance level.

Quick Read Insights

- 44% of tech companies are located in London or the South East with a cluster forming along the M4 Corridor and in East London.
- Two-thirds of technology companies are facing difficulty finding top performing employees.
- 81% of the workforce are over the age of 29 and 83% are male, making it the most heavily male sector in the UK.
- The sector has seen 5% growth of the last five years and many reports say that the industry is set to grow further.
- Powerful tech companies now do not have to be large manufacturing ones. Instead small, single office companies can pack a powerful punch with their online services.
- As we know, women sparsely populate this industry but it doesn't look any brighter. Only 15% of applicants for tech courses are female.

Energy

Number of Employees

536,000

Generates Revenue of

£90 billion

Global economies are still approximately 80% dependent upon fossil fuels

DECC



of Energy Sector employees are men



of the workforce are white



wind turbines in the UK

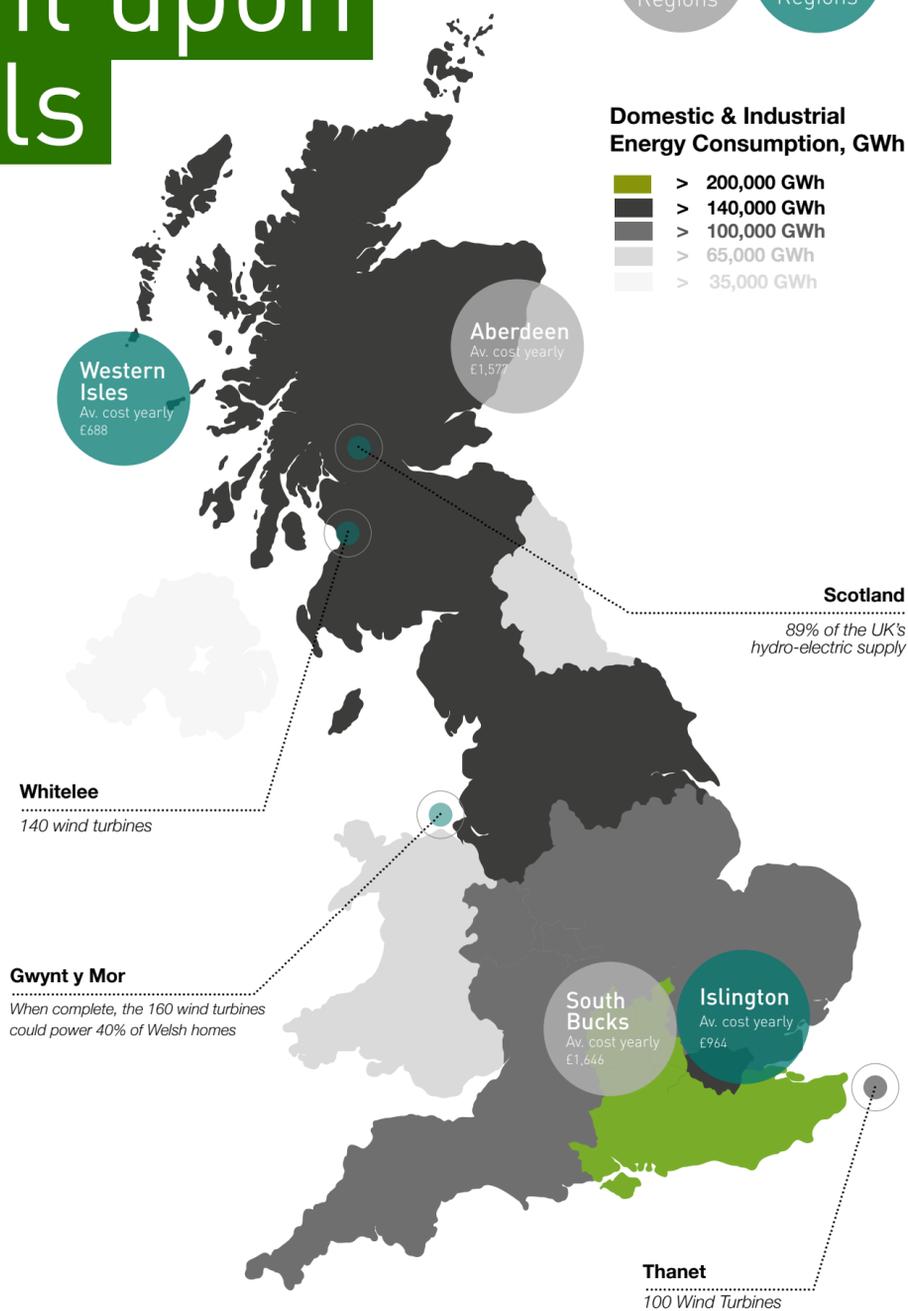
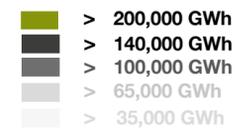
Energy production is undoubtedly the single most important asset in sustaining our global economy.

Since Europe embraced burning coal for heat in the 16th century, we have never looked back. Fossil fuels have been the overwhelming contributor to our growth and prosperity, with renewable sources such as wind, solar and tidal energy, yet our global economy is still 80% dependent upon fossil fuels.

The UK energy and utilities sector is lucrative and multi dimensional, employing over 536,000 and contributing to four percent of our GDP. Sub divisions include electricity, oil, gas, nuclear, coal, water and waste management, along with the fledgling renewable strategies.



Domestic & Industrial Energy Consumption, GWh



The UK energy sector has seen a 15% rise in employment during the last five years

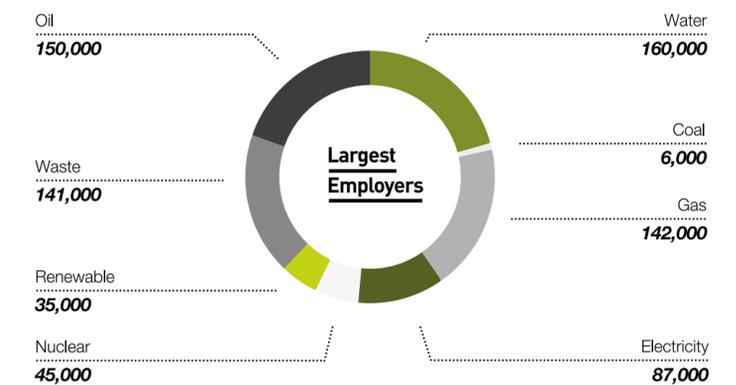
ONS

The British Isles benefits from the North Sea oil reserves that have, until recently, allowed the UK to be self-dependent on crude oil. The largest UK energy companies, Shell and BP, were both pioneers of North Sea drilling.

Domestically, the energy industry has been growing. Prior to 1986, gas and electricity was centralised and controlled by British Gas. After privatisation, competition increased significantly, and there are now six dominant electricity & gas suppliers, all of which create jobs within the UK economy.

Due to increased knowledge and awareness of global warming and its causes, the energy sector, along with all sectors of the UK economy, faces a multitude of regulations. The global energy industry has seen the greatest increase of legislation enforcements over the last 20 years as this awareness grows and the world's governing bodies increasingly act responsibly (if too slowly for critics).

Climate damage has escalated beyond our wishes and without intervention from governments and international bodies in the form of legislation,



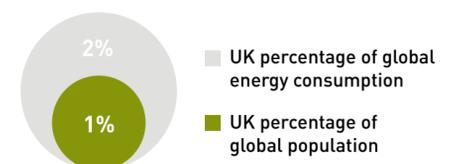
The UK currently consumes 2% of the world's energy usage while only accounting for 1% of global population.

In the last five years, the UK employment rate grew by 0.1%. During the same period, the UK energy sector saw an impressive 15% rise in employment. Truly interesting is the gender breakdown of the employment surge; the number of women working in the energy sector has increased by 37%, while men only saw an 8% rise.

Unlike other industries which can be very central to one geographic point, the energy sector sprawls itself across the nation like the economic juggernaut it is. East Midlands, South West England, Scotland and North West England are the largest energy employers and the regions which have the most employment opportunities. Customer service centres are now returning to the UK from their low cost adventures abroad. Importance has shifted to the highest quality service which is benefiting regional economies.

treaties, investments and policies, the problem would only magnify. The world is so agonisingly dependent upon the production of fossil fuels, however, a transition to renewable energy solutions is arduous but increasingly important within developed economies.

Examples of measures taken within the UK are directives such as: renewable energy targets, an obligation to mix biofuels with petrol, the deconstruction of ageing coal fired power stations, the ban of inefficient light bulbs, support for carbon dioxide capturing power plants, the introduction of efficiency labels on all new appliances, and the development of smart energy metres.



Work environments of today have to express an active interest in sustainability.

It's what we have come to expect within our developed economies. This active interest could appear in the form of a BREEAM Excellent facilities or a workplace cycle scheme. Both of the measures mentioned and everything in between have captured the imagination. Never has our nation been more sustainably conscious. But is it enough?

Greener Pastures

Irresponsible human beings don't recycle, don't ride their bicycle to work, and don't have solar panels on their roofs. This is an exaggeration, of course, but as public awareness of climate change has increased over the last two decades, social pressures to be environmentally conscious have also increased.

'Green' is a buzz word, and we are no longer naïve to the effects of mass consumerisation. Proof comes in support of the UK Green Party, where membership rose 57% between 2008 and 2010.

Along with political party alternatives, Britons are also considering alternatives to traditional electricity usage. A study conducted by Defra highlights that 60% of light bulbs in the home are now energy efficient compared to a decade ago. This has been offset, however, by an increase in consumer electronics in the home, with TV and computer usage increasing.

For the most part, UK environmental legislations are dictated by the EU and supported by the public. Many believe that EU environmental regulations have an effect on the competitiveness of European business on the international stage.

On the front line, energy corporations are facing EU legislation and social pressures, forcing them into an innovation submission. Large oil and gas extractors are pouring billions of pounds into research and development labs to discover efficient renewable replacements to fossil fuels.

Israel is battling an innovation war against fossil fuels. The nation has launched a drive to become a world leader in alternative energy. One of the largest clean tech companies in Israel is rolling out the largest network of charging stations in the world. Some Israeli motorway stretches have tile-like systems which convert the vehicles weight into electrical current. The country has few resources, and relies heavily upon import of gas and oil. This sustainable drive has lead to burgeoning energy and

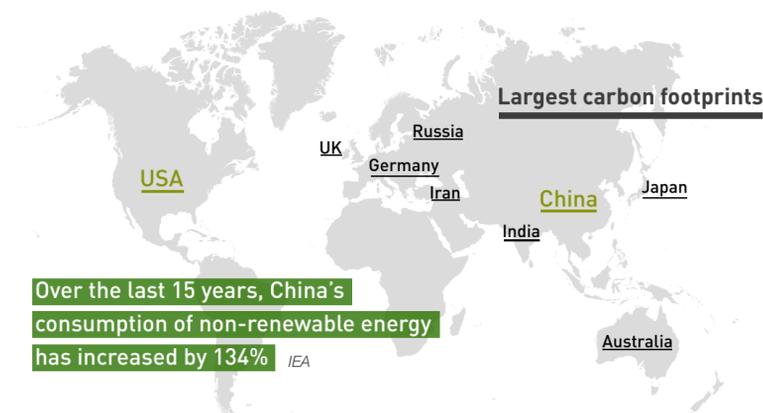


The United Kingdom's carbon footprint has risen 20% over the last 20 years

OECD

technology sectors. In 2006, there were 120 clean tech organisations in Israel, and 120 more have been established each year since that date. Shai Agassi, an Israeli-American clean tech business owner, said: "When China comes to Israel to learn about electric cars, then something amazing is happening in Israel."

Being environmentally active and responsible has given marketing departments a new round of eco-ammunition. The cost of reducing emissions may be seen as a short term negative, but the new sustainable narrative allows low emission propaganda to have an effect on consumer behavior and increase sales.



"When China comes to Israel to learn about electric cars, then something amazing is happening in Israel."

Shai Agassi
Clean-tech business owner

Energy Explosion

Industrialisation, urbanisation and transportation have all led to primary energy consumption rising by a factor of 23 since 1900.

Globally, the energy industry is one of the largest, and due to emerging economies such as India, China, Brazil and Russia, the industry will continue to expand rapidly. As regions explode in economic prosperity, they will need more energy and place a further strain on natural resources. Fossil fuels are finite, and at the turn of the last century, the energy industry reacted to the diminishing supply of oil when prices were hiked. The world's largest exporters flourished financially.

It is difficult to adopt renewable energies when profitability is rife within the coal, oil and gas sub-sectors. We know that burning fossil fuels can be harmful, but the bodies controlling the largest energy organisations and governments rely too much on the capital gained from crude oil and natural gas.

Analysts at BP estimate that American consumption of primary energy sources (coal, natural gas and crude oil) only declined by 1% in the decade from 2000 to 2010.

While the US energy consumption remains steady, the emerging BRIC economies are demanding energy at an astounding pace in comparison. Through the first decade of this century, global energy demands have risen by 28%. China's consumption of non-renewable energy increased by 134%, while India had a 77% growth in usage.

That staggering growth will be dwarfed if China is to reach the energy consumption levels per consumer that Western economies have. Currently in the US, there are 700 automobiles for every 1000 people. In China, that figure is 68 per 1000, and if China's consumption levels rise as projected, the implications for oil and fossil fuel are obvious.



The World Bank

Since 1900 the world's population has quadrupled

The Sustainable Surge

In the United Kingdom, the majority of our electricity is typically produced at a coal-fired power plant. However, renewable sources of energy have seen sizeable levels of growth over the last two decades. Renewable energy now supplies the UK with 10% of the overall electricity mix, while 2001 that figure was 2.5%.

Over 80% of Brazil, Costa Rica and Columbia's energy consumption is supplied by green energy

BIS

Employment figures show that the renewable energy sector is one of the fastest-growing in our nation. Between 2010 and 2011, the sector grew by 11% and is now worth £12.5bn in the UK alone. Employment figures are set to rise this decade, as the government has signed a legally binding document agreeing that 15% of our energy will originate from renewable sources by 2020.

The United Kingdom is the windiest country in Europe, and we've been harnessing that natural energy since 1991 when the first wind farm was created in Cornwall. If we were to embrace the full potential of the wind that howls over our landscape, we could power the country seven times over. During the last decade, wind energy overtook hydroelectric as the largest renewable source of energy, and it now equates to over half of our renewable output.

The UK currently has 3,506 wind turbines and is the eighth-largest producer of wind power in the world, behind leaders China and the US. Britain has more off-shore wind farms than any other country, our largest is seven miles off the coast of Kent, where 100 turbines supply electricity for 200,000 homes.

When it comes to the transition from fossil fuel reliance to renewable dependency, nobody does it quite like the Nordic nations. Iceland and Norway both boast a 100% dependency upon green sources, with hydropower a substantial contributor to the green quota. Some unexpected countries that provide large amounts of renewable energy are Costa Rica, Brazil and Columbia, who all achieve over 80% reliance on green power.

One of the reasons investors are not queuing around the block to pour capital into renewable energy is down to cost. The efficiency of power generated energy does not match that of fossil fuels, so the sector currently must be heavily subsidised. In the coming decades, whether it's tidal, solar or wind, renewable energy is set to surge in Great Britain.



The UK has more off-shore wind farms than any other nation.

DECC

Crude Reputation



A year after the BP gulf disaster, the company posted record profits

The oil and gas sectors underpin the modern society we have come to enjoy in the United Kingdom. It supplies power to industry, fuels our transport and heats our homes, while simultaneously contributing to our tax revenues and the development of technology.

Yet, over the course of the sector's history, it seems to have manifested a reputation for being a political and environmental tyrant. But why?

There is no doubting the importance oil and gas extraction has played in building our global economy: environmental disasters, rising fuel prices, political wars and the continuation of global warming are all reasons why organisations mining minerals are receiving a negative perception.

Consumers rely so heavily on the industry's supply of oil and gas that it's difficult to hide from the media's eye when situations out of the ordinary arise.

When accidents occur, the consequences can be catastrophic for both the environment and the economy. In 2010, the largest accidental oil spill in

history occurred in the Gulf of Mexico through BP. In the initial explosion, 11 lives were lost and over 200 million gallons of oil spilled into the Gulf. The oil travelled nearly 600 miles while BP searched for a solution, while a gathering storm of public rage ensued. BP was blamed for lack of prevention security as well as cleanup strategies, and shares in the company plummeted.

A possible explanation for the hostility directed at these companies may partly lie with the staggering profits they achieve, while consumers face ever-increasing prices at the pump. In 2010, the year of the BP oil spill, their recorded profits were \$1.8 billion, and in the consecutive year, profits rose to \$5.1 billion. This while fuel prices rose and hit British families hard.

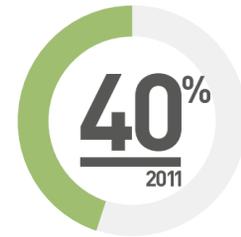
Although oil and gas giants are investing heavily in low carbon and renewable energies, the extracting and consumption of fossil fuels is damaging to our planet. Organisations that are seen to be contributing to this climate damage and making astounding profits will not necessarily be popular.

Sainsbury's are the largest producer of solar power in Europe

Guardian



In 2001, 12% of our household waste was recycled



In 2011, 40% of our household waste was recycled

Industrially, recycling has been in operation for decades, no more so than during the World Wars, when the war effort saw widespread use of drives to collect paper and metals.

Over half of domestic waste still goes to landfill ever year

Post war, an increasingly affluent Britain found it easier to use landfills until 1977, when we saw the first bottle bank appear. Domestic recycling programmes were initiated in 2001.

Before the recycling movement, we lived in a throwaway age, when it was cheaper to buy the product new rather than repair or recycle it. It wasn't

so long ago that journeys to the local bottle and paper banks were bi-annual occurrences at best.

Today, the agenda has changed, and most homes have recycling bins. Initially seen as a nuisance, recycling has become part of our daily routines, and household waste has decreased by over 5% from 2000-2009. What's significant is the proportion of that waste which is being recycled. In 2000, 10% of our household waste was reused, in 2009, that percentage had risen to 37%.

We find the recycling activity frequently dotted throughout our days, in the workplace, at the gym, in the coffee shop and even online. The psychology of consumers has changed, and changed for the positive. No longer is Great Britain a throwaway nation, mass media and government legislation have

led us to sustainable pastures where we are consciously trying to ensure the grass is significantly greener.

Each supermarket carrier bag is estimated to take 500-1000 years to decompose. In 2011, Wales introduced a 5p charge on all carrier bags with the aim to reduce usage by up to 85%. Already some retailers have recorded a 90% reduction in the usage of plastic bags, making the scheme a perfect example of how positive implementation can change habitual consumer behavior.

The recycling movement is now seeing a generation who know no different. Children of today know a life filled with responsible schemes for maintaining a sustainable life. Transferring knowledge on intelligent and responsible waste management to children is

Think Globally Act Locally

as important as recycling itself. Europe is a global leader in eco-efficient waste management, thanks to increasing measures and education.

The United Kingdom has a sustainable pedigree: we are home to 16 companies on a Global 'Green' list of 100, including organisations such as BT, Centrica and Unilever. That's more than any other country.

What measures are these businesses taking to be responsible, and how can it be quantified? Sainsbury's, also inside the Global 'Green' 100, have nearly 70,000 solar panels on 170 of their stores. That makes them the largest producer of solar power in Europe, but more importantly, it has allowed them to cut carbon emissions by 30% since 2005.

Waste management in the UK is a thriving sector. It employs 141,000 thousand people and handles over 26 million tonnes of waste annually. Due to the efforts of householders and local governments, municipal recycling rates have risen from 12% in 2001 to 40% in 2011, yet over half of domestic waste still continues to go to landfills each year.



Recycling bins were first introduced in 2001



Wales have reduced plastic bag usage by 90%

The Energy Workplace

From oil rigs to call centres and all the service engineers and waste managers in-between, the energy industry is a vast and dynamic place to work.

UK Energy Facilities

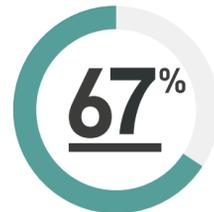
28 Oil Rigs

50 Coal Mines

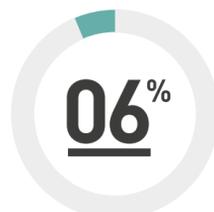
19 Nuclear Power Plants

From rigs to call centres, the energy industry is a vast and dynamic place to work. Services the industry offers are vital for sustaining our fast-paced economy, and these services are conducted in workplaces unique to the sector.

Women constitute 24% of the entire industry, but that figure varies in sub-sectors. For example, within electricity and waste management sub sectors, women have a weak presence. It is the reverse, however, in the administrative, sales and customer service sub-sectors, where presence increases to approximately 67%.



67% of energy sales, administrative and customer service employees are women



06% Ethnic minority employment

The industry has one of the lowest ethnic minority proportions within their workforce. Only 6% of the sector's employees are from an ethnic background.

In the UK, there are over 28 oil rigs, 50 working coal mines, and 19 nuclear power plants. Our lifestyles rely on the extraction or production of raw materials. These environments are dangerous, relentlessly taxing, and relying upon a highly skilled and well-trained workforce.

Engineers who work off-shore on oil or gas extraction rigs can expect to be working a two week on, two week off schedule, with regulations limiting time on the rigs to three weeks.

Living conditions can be cramped on board the rigs, social activities such as drinking alcohol is banned, and the lack of contact with civilisation is a severe downside. The majority of British oil rigs are in the North Sea, which can be two hours by helicopter from the nearest hospital or family member. The workforce deals with volatile fuels, the difficulty of working with heavy machinery, in sometimes adverse conditions.

The dangers are apparent for all to see. Simply uttering the words: "nuclear power plant" can sometimes evoke a trembling response, but for many, it is the work environment they have chosen. While nuclear radiation is certainly a risk, the sector is healthy, with more people working in it than its renewable counterpart. With zero carbon dioxide emissions and efficient capabilities, nuclear is a viable option. If incidents occur, like they did in Japan in 2011, a nation can lose faith. A year after the tsunami, atomic operations have been paused.

Thousands of people are responsible for the extraction of raw minerals, but millions benefit without quite knowing the processes or risks involved. What we may be more familiar with are the energy providers who supply our homes with the energy we need. Organisations such as British Gas, E.ON, Thames Water and SSE all supply and support our energy network. Their work environments contrast to those in the extraction process,

French Energy Facilities

11 Oil Rigs

0 Coal Mines

58 Nuclear Power Plants

they're customer support centres rely on a team focused on delivering a service to those who demand it and supplying information to engineers and technicians on site. Their environments are similar to typical office designs throughout other industries. However, when visiting the water provider, Essex and Sussex Water, a space in their BREEAM Excellent building was dedicated to emergency response. An area that resembles something like a NASA launch control where water flow systems could be managed on the countless number of digital displays. Emergencies can take a large amount of time to be resolved and so the workspace needs to be ready for any eventuality.

Although the energy industry is relatively recession-proof, it can be heavily burdened by the fluctuation in cost of energy extraction. Fossil fuel prices can yo-yo somewhat, which results in more instability than in other industries.

Renewable energy is very much in its infancy in relation to other methods of energy generation. Research and development is a vital step in the exploration for more efficient models of renewable energy. Innovation remains the focus of this growing sub-sector. Lab work, testing sites, wind tunnels and wave pools are examples of what takes place during the R&D process. Small companies aspire for large investments to take their discoveries to a larger stage

and to the attention of the multi-national energy corporations. Significant investment is being poured into renewables due to EU laws mandating sustainability compliance by 2020. Because of this, government investment in the sector has been growing rapidly. There is also growing interest from



22 Universities offer sustainable study courses

university graduates. Over 20 British universities offer sustainable study courses at both undergraduate and post-graduate level. Imperial College London is now regarded as 'the number one Cleantech University' in Europe. This is due to its corporate ties with Qatar Petroleum and Shell International with the mutual interest of developing carbon storage strategies.

Quick Read Insights

Global economies are still approximately 80% dependent upon non-renewable energy.

76% of the energy workforce are male and of that entire workforce, 93% are white.

The water sector is the largest employer in the energy industry, closely followed by oil and gas.

The UK has 1% of the entire population in the world, but consumes 2% of the world's energy.

China's non-renewable energy consumption has risen 134% in the last 10 years.

The energy sector is growing, the UK has seen a rise of 15% in employment just in the last 5 years.

In 2001, 12% of household waste was recycled. In 2011, 40% of household waste was recycled.

10% of the UK's energy mix comes from renewable energy although we have more off-shore wind than any other nation.

Credits and References



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We launched Orangebox just over a decade ago and soon after commissioned our first serious piece of research into the changes effecting technology and the workforce. This was a collaborative project with the technology consultant and author Philip Ross and his Unwired Group, who were highly respected at the time and remain so today. That initial report which we titled Office Wars demonstrated how critical great insight could be, to both Orangebox as a manufacturing company and our clients, who were equally aware of their own changing environment.

More recently Office Wars continued with the now highly acclaimed Boomers & Millennials, a report that has proven highly valued, worldwide. Workplace Habitat 2013, is I believe an equally impressive report and all the more, given the author is a recent graduate, whom we engaged early in 2012 to 'go under the skin' of six market sectors, which are critical to Orangebox. I believe the result speaks for itself and the research uncovered will again stimulate the thinking within Orangebox and our client organisations.

In such a dynamic, challenging and rapidly changing environment, the more light we can shed on the changes underway, the more successful the office environments, we can all realise.

Mino Vernaschi, CEO Orangebox

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The agenda of this report is to help provide insight into todays UK workplaces and the industries that house those workplaces.

To create this report, we have accessed numerous amounts of books, reports, newspapers, magazines articles along with countless interviews with people working within these environments. The key sources are attributed, where used.

If we have inadvertently used an observation, insight or research data without source attribution, we apologise and would like to reassure that we have sought to name each source of information used.

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Seven in ten employees within education,
health and public admin are women

307 people are declared insolvent or
bankrupt every day

Only 18% of technology sector employees are female

spaces within our work environments
are changing quicker than ever before

115% rise in 'house husbands' in the last 5 years

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