

# Leadership & talent must be prioritised for the UK to lead in science and innovation post-Brexit



Odgers Berndtson is a leading executive search firm in the UK and globally, with 58 offices across 29 countries and more than 250 partners specialising in over 50 industry sectors, including technology and related sectors such as interactive entertainment, gaming, e-sports and media. The technology practice has a growing international team led from London with Partners in the US, Europe and Asia. The firm both advises and searches for top leaders and senior executives across technology and related sectors and is this year's sponsor of Cambridge University's TEDx conferences and events.

Michael Drew is a partner of the firm and leads the UK Technology Practice.

## Overview

Society is at a tipping point. Technology has advanced sufficiently to help address the world's biggest challenges, ranging from climate change and poverty to healthcare, and is ready to accelerate – but progress is being held back by a shortage of visionaries and skilled professionals to realise its full potential. Increasingly, the biggest constraint on technological advance is talent.

So, whilst the UK aspires to lead the world's digital economy post-Brexit, its success will depend on an ability to attract and retain world-class talent. Already we are struggling with a dearth of top business leaders with the vision to transform organisations and industries, and also face a lack of highly-skilled digital specialists capable of transforming those visions into reality.

Whichever countries best address these and other talent challenges will reap the benefits of growth across their digital economies in the coming 20 years. Brexit is potentially a great de-stabiliser for the UK as obstacles to international collaboration and greater diversity are presented. Both are the foundation stones for great progress in scientific research and innovation.

In sum, the challenge we now face is ensuring the UK continues to attract the world's top leaders and digital talent. This is vital if the country hopes to take a lead in the digital revolution whilst changing the nature and structure of its relationship with the international community.

## Leading the next industrial revolution

Most of today's business leaders are not digital natives, belonging to an earlier generation which struggles fully to understand the extent of the digital industrial revolution now underway. Unless businesses across the UK can overcome this and related challenges, we risk falling behind international competitors and failing to keep up with the pace of change.

Chief executives regularly tell us that keeping up with the pace of change is an increasing challenge. Even those who do realise the extent and impact of change needed may find it hard to translate their visions into reality. This has given rise to a new cadre of Chief Digital Officer, equally at home in the boardroom and with technology. They play a vital role helping companies to implement enterprise wide digital transformation, connect developments in technology to commercial strategy, processes and business outcomes and translate into action the leadership vision.

However, just as there is a shortage of chief executives with the vision and capability to embrace the scale of change underway, there is also a small global talent pool of top-level Chief Digital Officers. The very best are, as a result, able to command remuneration packages which can run into millions – and for our commercial sector to be in the vanguard, the UK needs more of them. To achieve this, UK-based companies must be able to attract genuine leaders and innovators as CDOs post-Brexit.

The danger of not so doing is that UK businesses increasingly rely on “re-branded” heads of technology – many of whom are responsible for managing legacy systems rather than re-imagining businesses in a digital world.

## Global leaders in tech

Odgers Berndtson works with many of the world's biggest technology companies, helping to find and develop leaders with the skills and abilities to unleash the potential of technology and drive growth.

Many of the most valuable companies today sell technology or platforms, and exploitation of data is at their core. Companies like Amazon, Google, Apple and Microsoft are household names, but there are many other highly innovative companies yet to hit the mainstream that have an equal part to play in this wave of digital transformation. The mass adoption of cloud computing and the growth of social media, artificial intelligence and autonomous driving is leading to dramatic changes in how we work, live and communicate.

The UK has potential to play a substantial part in advancing the widespread adoption of technology, particularly artificial intelligence, as it possesses some of the best minds in the field, many of whom studied at world class universities like Oxford and Cambridge. A small but growing UK talent pool is highly sought after - and Google's acquisition of UK-based DeepMind, is just one example of this.

But future success depends on the UK's ability to foster and grow such talent. Odgers Berndtson has the privilege of partnering with technology innovators and we regularly experience at first-hand how a lack of people with the necessary skills and capabilities can limit commercial potential.

For instance, on a recent search we were looking for people with skills in a particular field of artificial intelligence, which rests with just a handful of people spread across the globe. It was clear that not only did we need to make this search fully international, but that there would be a need to attract and re-locate the right people from anywhere in the world.

This was the case even though the UK is recognised globally as having some of the best minds in the field of artificial intelligence. But the necessary depth is lacking. Also our client organisation wants to build truly global teams, as cultural diversity is known to inspire true innovation.

Looking beyond AI, the UK has similar opportunities for technology advancement in other specialist areas, like High Performance Computing. The adoption of GPU (graphics processing unit) chip technology allows supercomputing capability in ever smaller devices. Autonomous vehicles, as an example, requires super-computing capacity capable of processing vast amounts of data in milliseconds, so the car can make the same decisions a human brain can. This is just one specialist field where the UK has considerable potential.

But at a time of great digital opportunity, the macro political climate in both the UK (and US) is having a substantial bearing on our ability to exploit it. When we should be thinking global, looking to bring the best talent to this country, we are seemingly retracting. Brexit has many possibilities, but without action to ensure otherwise, could dramatically set our progress back on digital innovation. We need this country to be a place where the best talent from around the world feels welcome and our political and immigration system allows them to come and live here without barriers.

To those who say we need more home-grown talent, this is also undoubtedly true. In particular there needs to be much greater encouragement for young women and BME students to study STEM subjects and follow these disciplines into science and technology careers, where they are currently drastically under represented.

The economic opportunity alone should make this issue a top priority for the government. The figures speak for themselves – the UK technology sector is outstripping growth across the rest of the economy and has attracted US\$28 billion investment since 2011 (source: Tech Nation Report 2016).

At present, those women who are working in the sector are much more likely to be in supporting, or executional roles, than on the frontier of innovation. Whilst the most common role for men working in technology today is software engineer, this doesn't even figure in the five most popular roles for women – with the most popular female role being project managers. The reasons for this appear to be complex and cultural, borne out by significantly higher numbers of women leaving the industry - the “quit rate” for women in technology is currently 41%, more than twice that for men (17%). Half those women who leave their roles, also abandon the industry altogether. (\*source National Centre for Women & information Technology (Report: Women in Tech- The Facts, 2016).

As a firm, Odgers Berndtson is working with companies across technology and other sectors to encourage the development and promotion of women in greater numbers. But the situation in technology is so acute there is a strong case for the government to do more to encourage more rapid progress for women and, indeed, all diversity candidates.

## **Universities fostering world class talent**

The UK's leading universities are a hot bed of talent, particularly within the field of artificial intelligence. Cambridge and Oxford in particular successfully attract the best brains from all over the world. But we need to keep that talent in the UK, in an environment where diversity is not just supported but championed. In the US too, they face the same issue and risk alienating the brightest with a policy of America first. Other countries will exploit this and the UK cannot afford to fall behind.

It is recognised that the UK needs to do more to support grass root talent development in digital fields. The UK Government should be aiming to inspire more young students, particularly minorities into technology related courses, like computer science. This is a further area where girls need more support and encouragement because at present not enough able young women are pursuing technology related subjects at university level.

The Government's future partnership paper "Collaboration on Science and Innovation" looked at the role of collaboration in university research. We believe this is important not just in its own right, but also to ensure the UK is best positioned to attract a new generation of top digital talent. Oxford and Cambridge attract disproportionate shares of the UK's total budget for university research, which is under pressure of cuts. Already, however, it falls well below that of other countries, like the US, also seeking to attract the brightest and best. Making research in areas of innovation less attractive in the UK is, in our view, a false economy because it also threatens to deter the top international students.

International students, coming to world class universities in the UK to undertake PhD research in areas like data and computer science are also in great demand when they enter the workforce and competition to hire them is fierce. In the US, for instance, the best data scientists being hired after post graduate degrees can expect salaries in the order of US\$300K. For companies, they are a scarce and vital resource to address the challenges of digital transformation. Without their skills, the best business leaders will struggle to implement their strategies for change.

These are also the young men and women with the capabilities to translate into reality the digital vision of today's business leaders – and potential digital pioneers who will lead the next wave of transformation. Google Deep Mind, for instance, was set up by PhD students in the UK. We believe it is in the UK's national interest not just to attract the world's brightest and best to study here, but also to enter the workforce and settle here when they leave university. We would like to see more action from Government and businesses to attract and inspire more talent into key fields that support the digital economy. This is likely to require incentives and a more relaxed approach in key areas which have proved politically challenging, like immigration.

But there is also more work to do with employers and the education system to promote and support women and minority candidates, to increase the pool of able young talent coming into the sector. This should start at the earliest level, with children and in schools. Explaining to young people that, as in industrial revolutions of the past, the foundations of a great society stem from their ability to grapple, invest, deploy and exploit new technologies. In Victorian times, the UK was able to inspire and lead in this way – we need to do this once again if the UK is to become a world leader in technology and innovation post-Brexit.



### **Mike Drew**

Michael Drew is leading the Technology practice at Odgers Berndtson

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Odgers Berndtson  
20 Cannon Street  
London  
EC4M 6XD

+44 (0)20 7529 6337  
[mike.drew@odgersberndtson.com](mailto:mike.drew@odgersberndtson.com)



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