**Global Tech Talent Powering Global Britain**
Navigating Post-Brexit Migration Options

*March 2017*

tech<sup>UK</sup>

## Contents

**About techUK**

techUK is the industry voice of the UK tech sector, representing over 900 companies, who collectively employ over 700,000 people, about half of all tech jobs in the UK. These companies range from innovative start-ups to leading FTSE 100 companies. The majority of techUK members are small and medium sized businesses. The UK digital sectors account for 16 per cent of domestic output, 10 per cent of employment, and 24 per cent of exports[1].

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[1] techUK and Frontier Economics (January 2017) *The UK Digital Sectors after Brexit*. Retrieved from: https://www.techuk.org/insights/news/item/10086-the-uk-digital-sectors-after-brexit

## Executive Summary

> *"I want us to be a secure, prosperous, tolerant country – **a magnet for international talent and a home to the pioneers and innovators who will shape the world ahead.** I want us to be a truly Global Britain – the best friend and neighbour to our European partners, but a country that reaches beyond the borders of Europe too."*
>
> Prime Minister Theresa May MP, Lancaster House speech, 17 January 2017[2]

The vote to leave the European Union (EU) begins a major shift in UK immigration. The triggering of Article 50 commences a period in UK policy-making where the social and economic case for different types of migration from both inside and outside the European Economic Area (EEA) will be significantly reshaped. For digital businesses of all sizes, up and down the country, changes to the flow of tech talent are a serious and ongoing element of business certainty and confidence in the UK as place to start, scale and invest in a tech company.

As the UK defines its new role as Global Britain, the Government must work with industry to galvanise those parts of the economy in which it has a current and future competitive advantage. As demonstrated by the Government's own *Tech Nation 2017*[3] report from Tech City UK and techUK's report *The UK Digital Sectors After Brexit*[4], the UK tech sector is a global success story, with the potential to grow from strength to strength.

**Global talent is key to recent UK tech success**

The success of the UK tech sector in the last decade has been built on access to global tech talent in many forms – from the entrepreneurs looking to start their next global company from the UK, to the range of skilled tech workers in roles such as data analytics, cyber security and software development, through to the tech specialists in UK universities who drive the creation of new ideas and commercial spinouts. Recent analysis for techUK by Frontier Economics showed that 18 per

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[2] UK Government (January 2017) The government's negotiating objectives for exiting the EU: PM speech. Retrieved from https://www.gov.uk/government/speeches/the-governments-negotiating-objectives-for-exiting-the-eu-pm-speech
[3] Tech City UK (March 2017) Tech Nation 2017. Retrieved from http://technation.techcityuk.com/
[4] techUK and Frontier Economics (January 2017) *The UK Digital Sectors After Brexit*. Retrieved from https://www.techuk.org/insights/news/item/10086-the-uk-digital-sectors-after-brexit

cent of the digital sectors' three million workers are foreign-born, with one-third of those are from EU countries. Foreign-born workers also accounted for 45 per cent of net employment growth between 2009 and 2015, with EU-born workers contributing the most, in relative terms, to the sector's success[5].

**The tech talent triple hit**

Whilst Brexit potentially disrupts access to skills by disrupting a vital talent pipeline from the EU, it is just one part of a talent triple hit facing UK tech. Recent and incoming changes on skilled migration from outside the EEA, alongside long-standing and growing shortages in domestic digital skills[6], present tech companies with an ever tightening squeeze on accessing the talent they need to grow.

In techUK's Brexit negotiation priorities, presented to the UK Government in January 2017, techUK made it a key priority for the UK Government to set out a credible plan to ensure the UK remains open to the best international talent[7]. Recognising the need for the UK's growing tech sector to continue to be able to access international talent will be key as sector grows.

**An immigration system calibrated to the real-time needs of the UK economy**

Overcoming the tech talent triple hit in turn requires a positive economic, social and cultural case for controlled migration in new Global Britain. This paper argues that the time is now for a new data-driven immigration system, calibrated to the real-time needs of the UK economy. A smart immigration system would help to rebuild public trust and confidence that immigration is being controlled and calibrated to the needs of the UK economy.

This paper provides an overview of the needs of the UK tech sector, in ensuring global tech talent can drive Global Britain, making a number of recommendations to UK Government under the following headings:

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[5] techUK and Frontier Economics (January 2017) *The UK Digital Sectors After Brexit*. Retrieved from
https://www.techuk.org/insights/news/item/10086-the-uk-digital-sectors-after-brexit
[6] As outlined in techUK (July 2015). *We're Just Not Doing Enough: Working Together to Meet the Digital Skills Challenge*. Retrieved from: https://www.techuk.org/insights/reports/item/5077-techuk-proposes-11-recommendations-to-meet-the-digital-skills-challenge
[7] techUK (January 2017) *techUK Priorities for European Exit Negotiations*. Retrieved from
https://www.techuk.org/insights/news/item/10089-techuk-priorities-for-european-exit-negotiations

## 1. Work to ensure European tech talent in the UK stays in the UK

- The Government should **urgently commit to avoiding a "tech talent cliff-edge"** if no deal is reached with the EU in exit negotiations, so that there are guarantees that UK firms will have continued access to the European tech talent they need to grow. An abrupt termination to ongoing access to EU digital talent will be devastating to UK tech.

- The Government must confirm that EEA nationals residing in the UK prior to 23 June 2016 have the **unequivocal right to remain**.

- The Government must **urgently clarify the status of EEA hires made over the Article 50 negotiation period**, setting a clear timetable for when new migration rules will be put in place as part of a potential new Immigration Bill.

- Recognise the **importance of UK firms being able to locate UK nationals to work in EU member states** to support business operations in those markets. Similarly, the Government should consider a visa-free system for short-term business travel between the EU and UK.

## 2. Reform non-EEA migration to alleviate existing tech talent shortages

- The Government should **consider increasing the monthly cap on the Tier 2 skilled worker route**, sending a positive message that the UK is open to the innovators and pioneers from around the world that the Prime Minister has outlined she wants to be welcome in Global Britain. This would send a positive message to business, particularly multinationals who need to make the case to global headquarters on why the UK is the best place to invest in a tech company.

- The new £1000 Immigration Skills charge, added to all Tier 2 visas and long-term intra-company transfers (ICT) from April 2017, is set to raise £250m in 2017-18 financial year alone, based on calculations by the Government's own expert Migration Advisory Committee (MAC). Rather than use the charge as a revenue raising tool, **the Government should ring-fence this new £250m per year to help fund a major and world-leading domestic digital skills programmes fit for Global Britain**. This would build on the foundations laid out in the Government's recent Digital Strategy, looking at the entire pipeline from schools to people currently in work, including substantial funding for digital lifelong learning pilots and a step change in funding to support teachers in

the delivery of the Computing Curriculum and mandatory post-16 digital skills in schools.

- **International students should be excluded from the Government's net migration target**, to send an open message about UK universities and avoid further drops in application rates, particularly for STEM subjects and post-graduate researchers.
- The Government should **undertake a review on reopening the Post Study Work visa** to ensure the UK tech sector benefits from the international talent trained by our world-leading universities.

3. **Harness digital technologies for a smooth and frictionless transition to new smart migration system**

- The Government faces an unprecedented administrative task in processing the volume of right to remain applications of EU nationals in the UK. The Government must **give urgent consideration on how it can instigate better data and information sharing across government to expedite the high volume of right to remain applications that the Home Office will need to process**. New clauses introduced in Part 5 of the Digital Economy Bill open up new possibilities to improve Government processes and identity verification.
- A dynamic, smart migration mechanism should be created which harnesses the best of new technologies to streamline the process and create an agile operating model which works for hiring and exporting talent alike. **The Government should undertake an immediate review on how new technologies can be deployed to ensure frictionless migration systems,** including visa applications and movement of people across borders. This system should be calibrated to provide data on the real time needs of the economy, which will be more responsive and provide the public with additional data on economic needs. This in turn can rebuild public confidence that immigration is being controlled and calibrated to the needs of the UK economy.

## Introduction

The decision by the British people to leave the EU has given the Government a clear message – the public wants to see greater control over migration. Yet migration has provided a vital source of skills for many sectors of the economy. These two opposing positions leave the Government a delicate balancing act – how to deliver the democratic will of the people without stifling growth in some of the UK's most dynamic sectors?

Nowhere is this apparent dilemma more evident than in the UK tech sector. *Tech Nation 2016* highlighted that UK tech was growing 32 per cent faster than the rest of the economy[8]. Creating high-skilled, high-value jobs across the country, UK tech is one of the UK's great economic success stories. Due to the UK's chronic digital skills shortage, international talent is integral to this success: 18 per cent of the sector's 3 million workers are foreign-born. One-third of those are from EU countries. Foreign-born workers accounted for 45 per cent of net employment growth between 2009 and 2015. Brexit risks access to skills by disrupting a vital talent pipeline[9], where the remedies to address the domestic digital skills shortage may take years to take effect.

A recent survey found that 75 per cent of techUK members employ EU nationals[10], many in vital roles that they struggle to fill with domestic talent. The dynamism of the sector also means tech creates new jobs at nearly three times the rate of the rest of the economy[11] and is estimated to require a further 745,000 highly-skilled digital workers by 2017 alone[12]. Additionally recent research by Atomico has found that the UK is the number one destination for international tech talent in Europe.[13] In short, access to international talent is part and parcel of UK tech's phenomenal success.

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[8] Tech City UK (February 2016). *Tech Nation 2016 Report*. Retrieved from: http://www.techcityuk.com/wp-content/uploads/2016/02/Tech-Nation-2016_FINAL-ONLINE-1.pdf

[9] techUK and Frontier Economics (January 2017) *The UK Digital Sectors After Brexit*. Retrieved from https://www.techuk.org/insights/news/item/10086-the-uk-digital-sectors-after-brexit

[10] techUK member Survey. Conducted July 2016.

[11] Tech City UK (February 2016). *Tech Nation 2016 Report*. Retrieved from: http://www.techcityuk.com/wp-content/uploads/2016/02/Tech-Nation-2016_FINAL-ONLINE-1.pdf

[12] House of Commons Science and Technology Committee (June 2016). *Digital Skills Crisis*. Retrieved from: http://www.publications.parliament.uk/pa/cm201617/cmselect/cmsctech/270/270.pdf

[13] Atomico (November 2016). The State of European Tech – 2016 Edition. Retrieved from: http://www.atomico.com/downloads/state-of-european-tech/atomico-state-of-european-tech-2016-full-report.pdf?utm_content=bufferdbcdf&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

Scratch beneath the surface and there is cause for optimism in making the positive case for skilled migration in tech roles. A recent poll by British Future shows the public supports retaining access to high-skilled workers in strong growth areas[14]. Similarly, the Chancellor Rt Hon Philip Hammond MP has stated his intention that no immigration controls would apply to highly skilled workers from the EU.[15] These were important developments as they make the case for the type of immigration reform the public wants which is precisely the kind of immigration the UK tech sector requires. Furthermore, the UK's migration system has long been unable to deliver the high-value skills our tech sector needs to keep growing at its current pace. Brexit, then, provides the catalyst for reforming a migration system that has long failed to make the digital economy the best it can be.

Reforms should aim at delivering a smart migration system that is data-driven, agile and identifies in real-time those high-value areas where the UK is lacking skills.

This system should achieve several objectives:
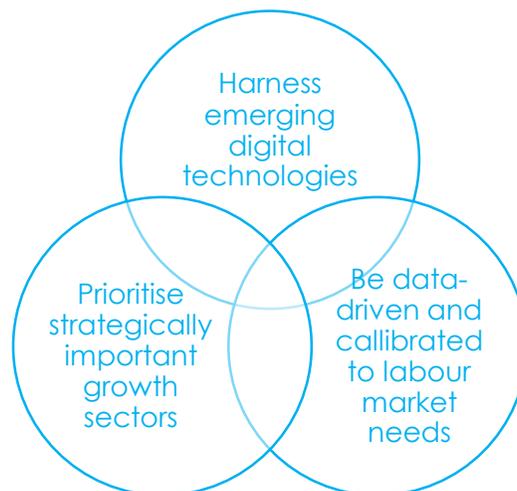


This paper analyses the importance of international talent to the UK tech sector in a post-Brexit context. It is split into two sections: the first section assesses the importance of international talent to the UK and makes a number of recommendations on how to ensure we retain this; the second

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[14] British Future (August 2016). *What next after Brexit?* Of those surveyed, more people said they would like to see increased numbers of migrant IT professionals, businesspeople and scientists, than would prefer the numbers to be reduced. Retrieved from: http://www.britishfuture.org/wp-content/uploads/2016/09/What-next-after-Brexit.pdf
[15] The Guardian (October 2016). *Hammond says highly skilled will not face EU immigration controls*. Retrieved from: https://www.theguardian.com/politics/2016/oct/25/philip-hammond-highly-skilled-eu-workers-brexit-immigration-controls

section sets out a high-level vision on what a smart migration system looks like and the steps required to arrive at this in the short-, medium- and long-term.

## International Talent Driving the UK Tech Sector

**European talent has eased the domestic digital skills shortages**

The UK suffers from a chronic digital skills shortage which is hampering the growth of the tech sector - this year, high-skilled vacancies in tech companies made up the largest proportion of the professional vacancy market.[16] Access to the EU talent pool has allowed tech companies in the UK to mitigate the paucity of domestic digital skills, and is why European talent remains so important to continued growth. A report commissioned by techUK found about six per cent of workers in the digital sector are from EU countries. However, their contribution has been much greater - EU-born workers comprised four per cent of digital sector employment in 2009 but 17 per cent of the sector's growth through to 2015.[17] In the absence of sufficient domestic digital skills, restricting access to EU talent will quite simply constrain growth in the UK tech sector.

techUK welcomed the Government's statement on 11 July 2016 indicating the legal status of EEA nationals living in the UK will be protected when we leave the EU[18], however **the Government must go further and unequivocally guarantee their right to remain**. The absence of this basic guarantee leaves the majority of leading tech companies in the UK facing uncertainty as to the status of many in their workforce and how also to plan for future resourcing. This is an absolute minimum requirement for tech companies given their substantial dependence upon European talent.

Tech companies also need clarity on the status of EU nationals who migrate to the UK over the course of the Article 50 negotiation period. The CIPD is reporting the number of migrants from the EU arriving in the UK for work across the economy has fallen for the first time in a decade since the vote to leave the European Union, according to official figures from the Office for National Statistics[19]. UK tech companies are in need of certainty. The Government must **urgently clarify the**

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[16] Vacancy Soft (October 2016). *Demand for professionals in the IT sector rises year on year.* Retrieved from: http://www.vacancysoft.com/vacancysoft_apsco_trends_report_onrec/
[17] techUK (January 2016). *The UK Digital Sectors After Brexit.* Retrieved from: techUK.org/brexit
[18] Gov UK (July 2016). *Statement: the status of EU nationals in the UK.* Retrieved from: https://www.gov.uk/government/news/statement-the-status-of-eu-nationals-in-the-uk
[19] CIPD (February 2017) *Fears over future talent as level of EU migration begins to fall. Retrieved from* http://www2.cipd.co.uk/pm/peoplemanagement/b/weblog/archive/2017/02/24/fears-over-future-talent-as-level-of-eu-migration-begins-to-fall.aspx

**status of EEA hires made over the Article 50 negotiation period**, setting a clear timetable for when new migration rules will be put in place as part of a potential new Immigration Bill.

**Brexit as a catalyst to deliver a migration system that supports the UK's most dynamic sectors**

Since the Coalition Government's immigration reforms, leading tech voices have been highlighting the way these risk stifling the tech industry of the skills it needs to maximise growth. techUK believes reforms to Tier 1 and 2 of the visa system, alongside revisions to graduate visa rules are vital to securing the high-skilled workers the UK requires for short- to medium-term economic growth. This is in tandem with continued Government investment in our domestic digital skills initiatives, such as those laid out in the recently launched Digital Strategy.

### Tier 1

The Tier 1 visa route for non-EEA migrants offers a range of routes for investors, entrepreneurs, graduate entrepreneurs and 'exceptional talent' the opportunity to become part of the UK's world-leading tech ecosystem. Foreign entrepreneurs have made a significant contribution to the UK tech sector – over half of the UK's so-called tech 'unicorns' (companies with a valuation of over $1bn) were founded by a non-UK national, and one in five UK tech businesses is founded by an immigrant[20]. In addition, research by the Centre for Entrepreneurs and DueDil shows that migrant founded companies, of which digital startups are a significant subset, employ 1.16 million people[21]. Attracting the sharpest entrepreneurs is an important part of the UK's thriving digital economy.

Within Tier 1, the *Tech Nation* visa offers a route for exceptional tech talent to reside in the UK. While techUK is supportive of the *Tech Nation* route, it is yet to provide the volume of talented individuals to significantly enhance the UK's tech ecosystem. Up to September 2016, 181 applications have been endorsed[22] and anecdotal evidence suggests that further reforms could be made to boost that number further. Tier 1 individuals are by definition exceptional, and the UK should be open to attracting as much exceptional global talent as possible. Not only do they

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[20] Startups UK (March 2016). *One in five UK tech start-up founders are immigrants.* Retrieved from: http://startups.co.uk/one-in-five-uk-tech-start-up-founders-are-immigrants/
[21] Centre for Entrepreneurs (March 2014). *Migrant entrepreneurs: building our businesses, creating our jobs.* Retrieved from: http://centreforentrepreneurs.org/wp-content/uploads/2015/11/MigrantEntrepreneursWEB.pdf
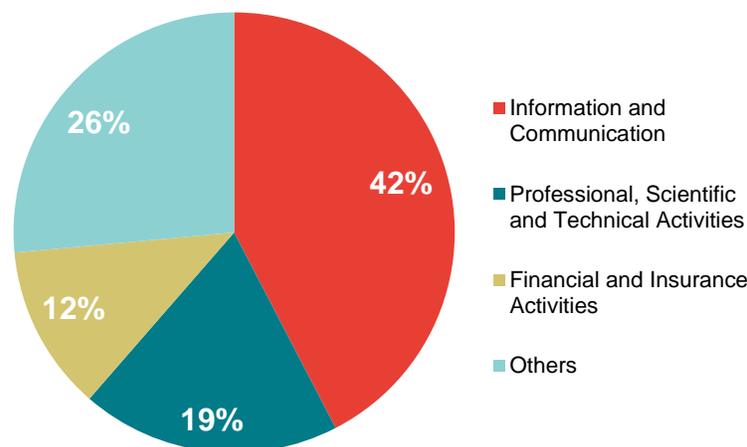[22] Tech City UK (2016). *Tech Nation Visa Scheme in Numbers*. Retrieved from: http://www.techcityuk.com/blog/2016/10/tech-nation-visa-numbers/

bring direct economic uplifts, there are also indirect benefits including international prestige, knowledge sharing and enhancing the attractiveness of the UK tech sector for inward investment.

The Prime Minister firmly stated in her Brexit speech that she wanted the UK to be a magnet for international talent and a home to the pioneers and innovators who will shape the world ahead [23]. The tech sector wholeheartedly agrees with this sentiment, and techUK believes a review should be undertaken to better understand how to make best use of the Tier 1 route. This could be a part of the Government's IT skills review, as announced by then Migration Minister James Brokenshire MP in March 2016. [24]

### Tier 2

The Tier 2 visa is the main immigration route for skilled workers coming to the UK to take up employment. As the below chart from Frontier Economics analysis of Home Office data shows, the clear majority of demand for Tier 2 visas currently comes from the three major industry groups most closely associated with the digital sectors[25].



Information and Communication — 42%
Professional, Scientific and Technical Activities — 19%
Financial and Insurance Activities — 12%
Others — 26%

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[23] UK Government (January 2017). *The Government's Negotiating Objectives for Exiting the EU: PM Speech.* Retrieved from: https://www.gov.uk/government/speeches/the-governments-negotiating-objectives-for-exiting-the-eu-pm-speech
[24] UK Parliament (March 2016). *Tier 2 (Skilled Workers) Written Statement.* Retrieved from: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2016-03-24/HCWS660/
[25] techUK and Frontier Economics (January 2017) *The UK Digital Sectors After Brexit.* Retrieved from www.techuk.org/brexit

techUK has long argued that the Tier 2 visa system needs reform to deliver the skills the tech sector requires[26]. As the UK tech sector grows, it employs more UK professionals but also relies on the ability to hire skilled employees via the Tier 2 visa route. Limiting the ability to recruit non-EEA talent will limit the sector's growth. Given emerging technologies and the rapid growth of the UK's digital economy, the UK cannot afford to lose access to talent by further restricting skilled migration routes, particularly given a period of uncertainty on access to EU talent over the negotiation period.

In March 2016, further restrictions were announced to the Tier 2 route – a new £1000 immigration skills charge per visa, increasing salary thresholds, and limitations to ICT, on top of an existing cap. Notably, the impact of the previously introduced cap is yet to be fully understood.[27] Concerns were raised at the time of these reforms by industry figures in the tech sector and beyond that these reforms make it harder for businesses to grow.

These reforms were accompanied by a MAC recommendation that the Government conduct a review of the skills needs of the tech sector – a direct recognition of the particular difficulty the UK tech sector faces in recruiting the skills it needs. The then Immigration Minister, James Brokenshire MP, committed to undertaking the review but the Government has yet to act. **techUK recommends that the Government urgently undertakes this review**, which will support an evidenced-based approach to delivering the skills the UK tech sector needs to grow. techUK encourages this work to build on that done by the MAC in adding key digital roles in cyber security, data, product and software specialists to the Government's Shortage Occupation List in 2015.

Furthermore, the ambition of the UK Government to reduce overall migration to the tens of thousands has resulted in anxieties in some parts of the sector that there may be additional restrictions on Tier 2 skilled workers, leading to a smaller talent pool available to UK businesses, less flexibility to fill short-term peak demands, and a resulting increase in business costs hiring specialists. Companies in techUK's membership have anecdotally outlined concerns that this could lead to unintended consequences, including:

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[26] techUK (January 2016). *techUK highlights cumulative impact of recommendations made in MAC Tier 2 Review.* Retrieved from: https://www.techuk.org/insights/news/item/7152-techuk-highlights-cumulative-impact-of-recommendations-made-in-mac-tier2-review
[27] Parliament UK (March 2016). *Tier 2 (Skilled Workers): Written Statement*. Retrieved from: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2016-03-24/HCWS660/

- Making it hard for UK tech businesses to access the talent they need, leading them to (a) become less competitive, (b) consider outsourcing key roles, or (c) move parts of UK own operations abroad;

- Discouraging companies from investing in new UK projects that require highly skilled digital technology professionals, particularly impacting on inward investment for those multinational companies that make the case against other countries for investment in the UK;

- An increase of costs of specialist technology services to public and private customers. This is likely to lead to a reduction in the number of IT projects undertaken by UK businesses, which will hamper productivity gains made available through greater digitisation.

Accordingly, the Government should **consider increasing the monthly cap on the Tier 2 skilled worker route**, showing that the UK is open to talent from around the world as part of the Prime Minister's ambition to make the UK "a magnet for international talent and a home to the pioneers and innovators who will shape the world ahead"[28]. This would send a positive message to business, particularly multinationals who need to make the case to global headquarters on why the UK is the best place to invest in a tech company when there is a period of uncertainty on ongoing access to EU talent.

### Tier 4 and retaining the best international graduates

Non-EEA (international) students are an important source of tech talent for the UK. International students are a particularly strong source of STEM talent, which is vital for the UK tech sector, and an area in which the UK has a significant skills gap. The reality is that the UK's future skills demands cannot be met without maintaining a strong flow of the world's best and brightest students.

Despite the wealth of evidence demonstrating the economic value of international students to the UK economy, reforms over the last five years[29], have resulted in a significant decrease in the

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[28] Prime Minister's speech "A Plan for Britain" (January 2017). Retrieved from:
http://www.independent.co.uk/news/uk/home-news/full-text-theresa-may-brexit-speech-global-britain-eu-european-union-latest-a7531361.html
[29] In April 2012, the Home Office introduced limits on how long a Tier 4 student can stay in the UK following the completion of their studies.  In July 2015, further restrictions were made on the visa, including on limitations on the rights of dependents. More recently, the Home Secretary Amber Rudd MP has announced her intention to further reduce the number of overseas students and has launched a consultation on a new student immigration system.

amount of international students applying to UK universities. By March 2016, non-EU applications to study in the UK had dropped to 222,609, a 6 per cent decline.[30]

The Government should **undertake a review on reopening the Post Study Work (PSW) visa** to ensure the UK tech sector benefits from the international talent trained by our world-leading universities. This route was previously an important means for companies to secure the best international graduates who were trained in the UK. Its closure has exacerbated the skills shortage in the UK tech sector, which has direct implications.

Recent visa changes cater to graduate entrepreneurs, but there is a substantial gap in channeling potential skilled graduate employees to remain the UK. Reopening the PSW route is a proven and effective way to raise the talent flow into the UK, which would support scale-ups, an area in which the UK is particularly weak (as evidenced in *The Scale Up Report on UK Economic Growth* by leading angel entrepreneur Sherry Coutu CBE.)[31] Arguably, the closure of the PSW visa route means that the UK is effectively training international competitors to outcompete us.  As the UK seeks to establish itself as an outward looking, innovative and hyper-competitive trading nation, we must retain the best talent that our universities have trained – and the PSW visa is an effective means of achieving this.

*International students and the net migration target*

International students make a significant economic contribution: non-EU students pay approximately £3.2 billion per year in tuition fees to our university sector, while non-UK students as a whole spend an estimated additional £4.9 billion on personal and living costs off-campus. This off-campus expenditure created an estimated 'knock-on' output of £7.37 billion throughout the UK economy.[32]

Worryingly, UCAS has reported EU applicant figures decreased by seven per cent to 42,070. The number of applicants from other overseas countries is 52,630, similar to last year, with many

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[30] Office For National Statistics (May 2016). *Migration Statistics Quarterly Report*. Retrieved from: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/migrationstatisticsquarterlyreport/may2016
[31] Scale Up Report (November 2014). *The Scale-Up Report on UK Economic Growth*. Retrieved from: http://www.scaleupreport.org/scaleup-report.pdf
[32] IPPR (August 2016). *Destination Education*. Retrieved from: http://www.ippr.org/read/destination-education#students-and-the-net-migration-target

speculating that this is due to uncertainty around the UK's universities and welcoming approach in a post-Brexit world[33].

**International students should be immediately excluded from the Government's net migration target**, to send an open message about UK universities and avoid further drops in application rates, particularly for STEM subjects and post-graduate researchers. This chimes with public opinion on the matter – polling by British Future indicated that 60 per cent of respondents agreed that international students benefit the local economy where they live[34]. Furthermore, only 31 per cent of those surveyed by Migration Observatory wanted to reduce migration numbers by decreasing university student numbers.[35]

### On proposals for a Regional Skills Visa

A Regional Skills Visa has been proposed by the likes of London Mayor Sadiq Khan, PwC and the City of London[36], modelled on the schemes in place in Australia and Canada. However, techUK believes the case is still yet to be made that such an approach would alleviate challenges faced by companies.

A regional visa system would complicate the existing immigration system and cause a substantive amount of bureaucratic burden on local councils. It would also fail to command public confidence and is likely undermine credibility in the system, with the potential for clandestine migration. Additionally, this would not work for the tech sector which has a highly mobile and wide-ranging workforce. The tech sector has clusters all across the UK, the majority of which have seen growth in recent years. Clusters may be local, but for tech businesses, there are no such boundaries. UK digital tech businesses collaborate across the UK and internationally. Tech Nation "meetup" data suggests cross-cluster networking taking place, with talent moving freely from

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[33] UCAS (February 2017) Applicants for UK higher education down. Retrieved from
https://www.ucas.com/corporate/news-and-key-documents/news/applicants-uk-higher-education-down-5-uk-students-and-7-eu-students
[34] British Future (October 2014). *International students and the UK immigration debate*. Retrieved from:
http://www.britishfuture.org/publication/international-students-uk-immigration-debate/
[35] IPPR (August 2016). *Destination Education*. Retrieved from: http://www.ippr.org/read/destination-education#students-and-the-net-migration-target
[36] PwC (October 2016). *City of London proposes a post-brexit 'regional visa' system*. Retrieved from:
http://www.pwc.co.uk/who-we-are/regional-sites/london/insights/city-of-london-proposes-post-brexit-regional-visa-system.html

region to region where needs are highest[37]. The tech sector is a flexible workforce and a regional visa would not fit with the employment models.

British Future puts it succinctly: a London visa would see employers in Dartford face recruitment restrictions that did not apply in Bexley; firms in Pinner would be eligible but their neighbouring competitors in Elstree and Borehamwood would not. This would give one company an unfair advantage over another[38]. As such, techUK believes a unified smart, data-driven migration system should be implemented that can respond to regional needs, but does not limit itself to a certain location.

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[37] Tech City UK (February 2016) *Tech Nation 2016*. Retrieved from: http://www.techcityuk.com/wp-content/uploads/2016/02/Tech-Nation-2016_FINAL-ONLINE-1.pdf
[38] British Future (October 2016). *Britain's immigration offer to Europe*. Retrieved from: http://www.britishfuture.org/wp-content/uploads/2016/10/Britains-immigration-offer-to-Europe.pdf

## Building the UK's Domestic Digital Skills

While not the main focus of this paper, no analysis of the tech sector's skills needs would be complete without a substantial acknowledgement of the UK's domestic skills capabilities and policy interventions to alleviate the UK's longstanding digital skills gap.

Cultivating domestic digital skills was at the heart of the Government's Digital Strategy[39], with an announcement of a new Digital Skills partnership and commitment from industry on new digital training opportunities. The Digital Strategy offers a "framework" for the future of UK tech which is to be commended. However, there are some gaps in the Strategy which need to be filled. As such, techUK believes issues around lifelong learning, flexibility on the apprenticeship levy, and international talent should form a focus for policymakers, in conjunction with the Industrial Strategy. Industry also provided significant digital skills training across a number of levels as part of the Digital Strategy. A number of techUK members joined to commit to training for 4.5 million people to receive digital skills as part of the Strategy, alongside a range of other pre-existing commitments from individual companies.

However, there remains a large number of roles to be filled in the tech sector, but not enough domestic talent to fill them. While the current initiatives to bridge the digital skills gap will no doubt go some way to equip young people for future jobs, there nevertheless remains immediate skills shortages.

The accelerating pace of technological change makes lifelong learning initiatives more important than ever. While the Digital Strategy highlights lifelong learning, the announcements made predominantly focus on basic digital skills, with an approach that will mirror the one taken for adult literacy and numeracy training. While this is incredibly important, lifelong learning will need to incorporate more advanced digital skills that will equip the current workforce with the skills needed for the future digital economy. To adapt to a new culture of lifelong learning, techUK has advocated for the use of the apprenticeship levy in a more flexible manner. techUK has been vocal in stating that the Levy risks drawing industry funding away from initiatives that provide digital skills training – initiatives that were highlighted and celebrated in the Digital Strategy.

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[39] UK Government (March 2017) *UK Digital Strategy*. Retrieved from https://www.gov.uk/government/publications/uk-digital-strategy

The Digital Strategy also sets out a number of welcome training commitments in partnership with industry for the short to medium term. UK tech, however, remains highly dependent on international high-skilled workers in the immediate term. Technology companies face a triple hit on digital skills: a digital skills gap, and tighter restrictions for skilled work from EU and non-EEA talent. The UK tech sector will suffer if it does not have access to the best and brightest international talent in the immediate term. Therefore, techUK recommends the Government undertakes a comprehensive review of the digital skills gaps in the UK, making clear which shortages will be filled through domestic initiatives as outlined in the Digital Strategy and which will continue to require international tech talent.

If the Government is serious about creating a dynamic and open economy, it must continue to invest significantly in domestic skills. techUK has made a number of recommendations to Government on how to improve our domestic skills in our report *We're Just Not Doing Enough,* launched in 2015 well before the EU referendum was called, including on ensuring the incoming Apprenticeship Levy works to drive high-skilled digital roles of the future[40].

Whilst this paper should be read in conjunction with *We're Just Not Doing Enough* as many of its recommendations are even more pertinent for a post-Brexit world, there is still more that can be done. The previously mentioned new £1000 Immigration Skills charge, added to all Tier 2 visas and long-term ICTs from April 2017, is set to raise £250m in 2017-18 financial year alone, based on calculations by the Government's MAC. Rather than use the charge as a revenue raising tool, **the Government should ring-fence this new £250m per year to help fund major and world-leading domestic digital skills programmes fit for Global Britain**. This would build on the foundations laid out in the Government's recent Digital Strategy, looking at the entire pipeline from schools to people currently in work, including substantial funding for digital lifelong learning pilots and a step change in funding to support teachers in the delivery of the Computing Curriculum and mandatory post-16 digital skills in schools.

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[40] techUK (July 2015). *techUK proposes 11 recommendations to meet the digital skills challenge*. Retrieved from: https://www.techuk.org/insights/reports/item/5077-techuk-proposes-11-recommendations-to-meet-the-digital-skills-challenge

## Toward a Smart Migration System

Alongside building the UK's domestic digital skills base and ensuring the UK remains a hub for international talent, the UK's exit from the EU provides the catalyst for reforming the migration system itself. Reforms should aim at delivering a smart migration system that is data-driven, agile and identifies in real-time those high-value areas where the UK is lacking skills. The UK can create a dynamic new immigration system which addresses public concerns while supporting our most dynamic businesses. This smart migration system will be developed iteratively but must:
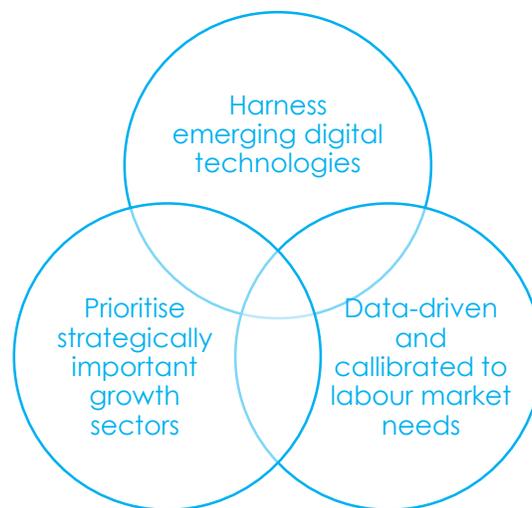


The UK's vibrant and diverse tech sector can be at the core of such a system – providing the technology needed to create an agile, new system and forging a data-driven approach. The Home Office will face a large bureaucratic task if three million EU citizens who are eligible for Indefinite Leave to Remain apply for permanent residency. Estimates suggest that if all EEA citizens were to apply in the same year, this would be equivalent to approximately 140 years' worth of processing permanent residence applications [41].

Accordingly, a dynamic, smart migration mechanism must harness the best of new technologies to streamline the process and create an agile operating model which works for hiring and exporting talent alike. **The Government should undertake an immediate review on how new**

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[41] The Migration Observatory (August 2016). *Here today, gone tomorrow? The status of EU citizens already living in the UK.* Retrieved from:
http://www.migrationobservatory.ox.ac.uk/resources/commentaries/today-gone-tomorrow-status-eu-citizens-already-living-uk/

**technologies can be deployed to ensure frictionless migration systems,** including visa applications and movement of people across borders. This system should be calibrated to provide data on the real time needs of the economy, which will be more responsive and provide the public with additonal data on economic needs. This in turn can rebuild public confidence that immigration is being controlled and calibrated to the needs of the UK economy.

This section outlines a number of additional short, medium, and long-term recommendations to further these ends.

### Short Term

If freedom of movement between the EU and the UK is restricted, this must not affect the UK's ability to do business with our largest trading partner. techUK encourages the Government to recognise the **importance of UK firms being able to locate UK nationals to work in EU member states** to support business operations in those markets, and vice versa. Similarly, the Brexit negotiators should **consider a visa-free system for short-term business travel between the EU and UK**. This must cover short visits, conferences, training, as well as short-term project-based secondments. A possible model is the "Electronic System for Travel Authorisation" (ESTA) used by the United States.

### Medium Term

A data-driven, real-time smart migration system will require a new approach to managing and analysing relevant labour-market and migration data. techUK believes **the Government should establish a Smart Migration Working Group** bringing together the Office for National Statistics' new data centre, Home Office, MAC, Government Digital Service, BEIS, DCMS and a diverse range tech companies to evolve the architecture of such a system. The working group would provide technical and policy expertise and strategic insights to help the Government make this new system a reality, applying the principles of the Smarter State as advocated by then Prime Minister David Cameron in 2015[42]. It would also allow Government to demonstrate to the public that it is developing a new and innovative approach to managing the UK's immigration – increasing control by being responsive to the skills gaps that the UK needs to fill at any given time.

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[42] UK Government (September 2015) *Prime Minister: My vision for a smarter state.* Retrieved from
https://www.gov.uk/government/speeches/prime-minister-my-vision-for-a-smarter-state

New technologies and better use of data should and must be harnessed to improve this process. The Government faces an unprecedented administrative task in processing the volume of right to remain applications of EU nationals in the UK. The Government must **give urgent consideration on how it can instigate better data and information sharing across government to expedite the high volume of right to remain applications that the Home Office will need to process**. New clauses introduced in Part 5 of the Digital Economy Bill open up new possibilities to improve Government processes and identity verification, where the Government already holds data on European citizens in the UK. Existing held data such as tax details from HMRC and education history from the Department for Education can help verify the length of time an EU national has lived and worked in the UK, whilst also looking to minimise the administrative burden of individuals making their application. Accordingly, the **Government should undertake a review of how the latest technology can be used to develop a world-leading migration system**. New technologies open up new opportunities – for example, artificial intelligence might assist with the first stage of visa application forms and reduce bureaucracy, biometrics and digital identities on Verify might be used to hold relevant visa and dependent information, and blockchain technology might be used to track an application.

## Long Term

A smart migration system is not static, it is iterative. The long-term aim should therefore be ceaselessly innovate this system so it becomes ever more responsive to the UK's skills needs. To do this, the system needs to be outcome- rather than technology-based so that it can be continually developed. It should also follow inter-operability principles so it is compatible with other Government and industry systems. There is no reason why, in the future, it cannot be integrated with international immigration data to create a universal smart migration system that allows the UK to value both immigration and emigration opportunities.

## Conclusion

The triggering of Article 50 commences a period in UK policy-making where the social and economic case for different types of migration from both inside and outside the EEA will be significantly reshaped. For digital businesses of all sizes, up and down the country, changes to the flow of tech talent are a serious and ongoing element of business certainty and confidence in the UK as place to start, scale and invest in a tech company.

As the UK defines its new role as Global Britain, the Government must work with industry to galvanise those parts of the economy in which it has a current and future competitive advantage. The success of the UK tech sector in the last decade has been built on access to global tech talent in many forms – from the entrepreneurs looking to start their next global company from the UK, to the range of skilled tech workers in roles such as data analytics, cyber security and software development, through to the tech specialists in UK universities who drive the creation of new ideas and commercial spinouts.

Whilst Brexit potentially disrupts access to skills by disrupting a vital talent pipeline from the EU, it is just one part of a talent triple hit facing UK tech. Recent and incoming changes on skilled migration from outside the EEA, alongside long-standing and growing shortages in domestic digital skills[43], present tech companies with an ever tightening squeeze on accessing the talent they need to grow.

However, there are concrete steps that can be taken to provide business certainty and help tech companies to access the talent they need to grow. Taken together with the recommendations laid out in the previous sections, Government should **commit to avoiding a "tech talent cliff-edge".** This is particularly important if no deal is reached with the European Union in exit negotiations, so that there are guarantees that UK firms will have continued access to the European tech talent they need to grow.

techUK urges the Government to act on the recommendations in this report to deliver a new migration system that allows the UK to be the best place to start, scale and headquarter a tech

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[43] As outlined in techUK (July 2015). *We're Just Not Doing Enough: Working Together to Meet the Digital Skills Challenge*. Retrieved from: https://www.techuk.org/insights/reports/item/5077-techuk-proposes-11-recommendations-to-meet-the-digital-skills-challenge

business. techUK believes reforms to Tier 1 and 2 of the visa system, alongside revisions to graduate visa rules are vital to securing the high-skilled workers the UK requires for short- to medium-term economic growth. This is in tandem with continued Government investment in domestic digital skills initiatives, such as those laid out in the recently launched Digital Strategy.

Alongside these recommendations, the time is now for a new data-driven immigration system, calibrated to the real-time needs of the UK economy. A smart immigration system would help to rebuild public trust and confidence that immigration is being controlled and calibrated to the needs of the UK economy.