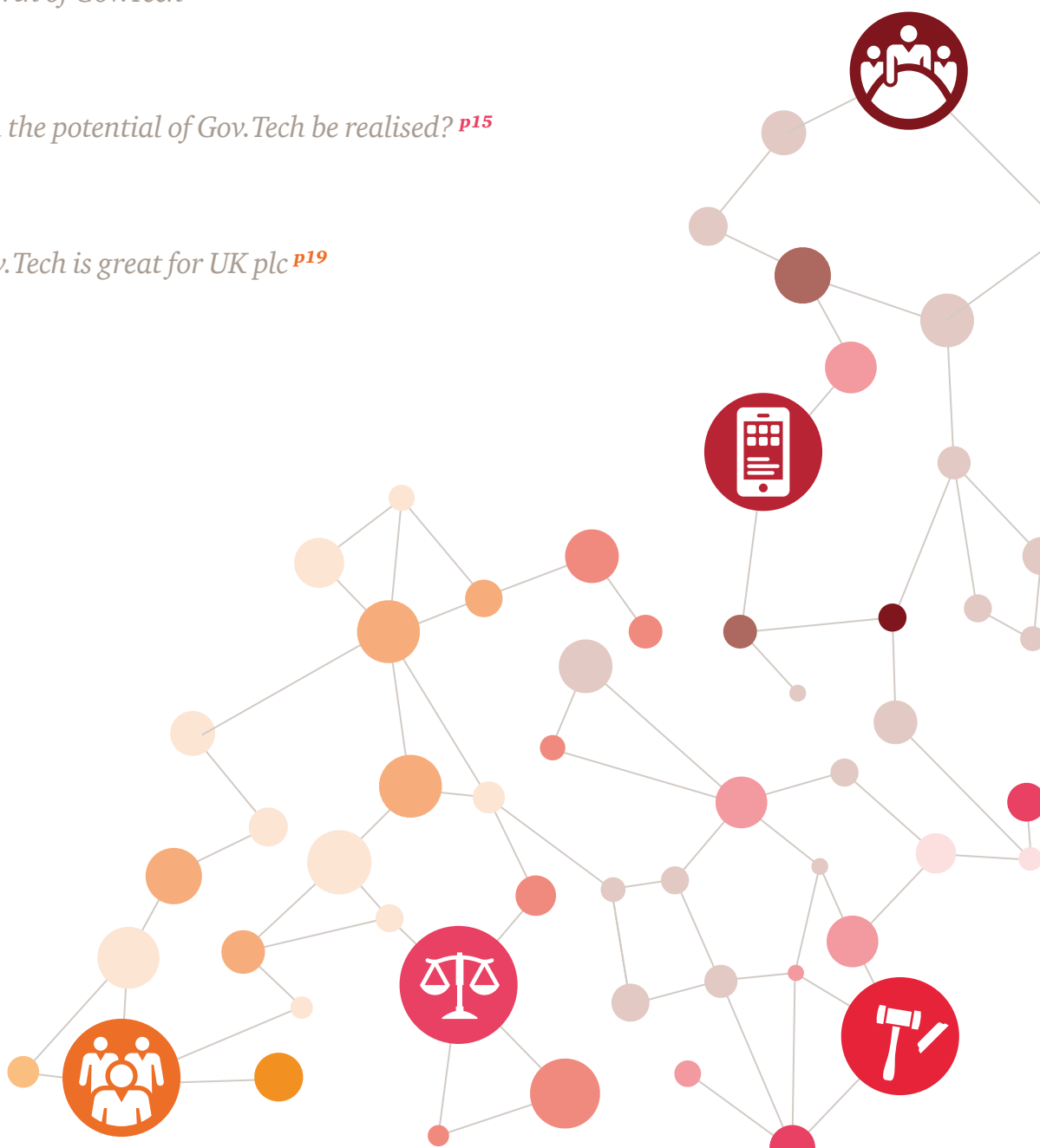

Gov.Tech

The power to transform
public services in the UK

September 2016

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Executive summary

Just as FinTech is a disruptive force in Financial Services, Gov.Tech has the power to transform the delivery of public services, achieve better for less and improve the user experience.

Driven by entrepreneurs using modern technology to disrupt the norm and deliver innovative products and services, Gov.Tech has the power to transform how government and public sector organisations deliver the outcomes the public wants.

Of course, technology is only one of many disruptors of business as usual. As we know from working with our clients, new business and operating models and process innovation can offer similar transformational opportunities.

However in this report we deliberately put the spotlight on the potential of digital, platforms and data to deliver improved outcomes for the users of services commissioned and/or provided by government and public sector organisations.

But what is Gov.Tech?

There are three important ingredients:



Using digital to deliver new, better ways to enable citizens to engage in their communities and receive the public services they need.

Fuelled by new technologies, joining up data and services in a mobile, connected world.

Created by entrepreneurs, innovators and Small and Medium sized Enterprises (SMEs) – often people who have worked in public services and can see exciting new ways of delivering improved outcomes and more efficient public services.



In a connected world, how the citizen wants to deal with government and the public sector is changing, driven by the possibilities opened up by new technology.

To lift the lid on the potential of Gov.Tech we have talked to start-ups and SMEs in the technology sector,¹ venture capitalists, incubators and our own experts. And the opportunities we found for government and the public sector, and for UK plc, are significant:



For government and the public sector

The opportunity is not only to deliver services better and faster and improving outcomes but also to reduce costs, so important at a time of budgetary constraint. For instance, with over 250 million central government transactions still completed offline every year, at a cost of £14.70 per hour to the taxpayer,² the opportunity for cost saving is considerable as well as reducing mistakes and the risk of fraud.

For small tech SMEs

A major opportunity is to gain easier access to the £45 billion of central government spending on external contracts³ and £187bn of total public sector spending on goods and services.⁴

For the funding community

Gov.Tech investment is rising. Venture capital (VC) investment into the sector is currently relatively small at around £73m in 2015 but the number of VC deals has grown by 55% between 2013 and 2015 with values up by 189% over the same period. This indicates increasing interest in the Gov.Tech sector by investors.

But there are challenges if the benefits of Gov.Tech are to be achieved and real benefits delivered for government, the public sector and the users of public services:

- Making it easier for Gov.Tech firms to do business with government.
- Creating the right environment through a change in government's culture and skills base.
- Opening up further the policy making process.
- Building trust in Gov.Tech delivery given its innovative nature.
- Shaping the regulatory environment to inspire innovation and more risk taking.
- Improving access to finance through the funding community.

¹ This included a small pilot online survey of 26 tech SMEs

² <https://www.gov.uk/government/publications/digital-efficiency-report/digital-efficiency-report>

³ <https://www.nao.org.uk/wp-content/uploads/2016/03/Governments-spending-with-small-and-medium-sizes-enterprises.pdf>

⁴ <https://www.nao.org.uk/wp-content/uploads/2013/11/10298-001-Governments-managing-contractors-HC-811.pdf>



Agenda for action

Government and the public sector, business and tech entrepreneurs and the funding community need to work together to realise the full potential of Gov.Tech driven innovation.

Government and the public sector can seize this opportunity to create an environment where innovation thrives, and where new solutions can emerge and flourish to improve outcomes. Great advances have already been made with the opening of standards and data and the creation of the digi-marketplace, driven by the Government Digital Service (GDS) and the Crown Commercial Service (CCS). Procurement policy has also changed, with the government's ambition for SMEs to comprise one third of public spending with suppliers and there has been a shift to more openness in policy making.

But more needs to be done. There is a need for **purchasers and commissioners** – including CIOs and Heads of Digital and Innovation – to explore new ways of bringing small businesses and technology driven innovation to public leaders and policy makers. And there is a need for a change in culture, to be willing to accept the risks of procuring SMEs (with their smaller balance sheets), as well as a supportive regulatory environment.

It also requires more agility by policy makers involving collaboration and using digital so that policy is truly data driven and evidence based.

Big businesses (including PwC) also need to play a part – whether working alongside, and/or partnering with, SMEs – to nurture and accelerate their growth, helping them to access crucial early stage finance and acting as brokers, introducing innovators to public sector clients to explore the art of the possible and new forms of joined up service delivery.

And the **funding community** has the opportunity to enable Gov.Tech players to access the investment needed to scale up, as in the more mature US GovTech market, for instance through the US GovTech Fund with its mission to: *“harness the power of transformers, technology, and capital to help government become more efficient, responsive, and better able to serve society.”*⁵

This report aims to stimulate a Gov.Tech conversation between the business community and government and the public sector about collaborating more efficiently, solving problems and providing better public services for citizens. The rewards could be huge – for businesses, for citizens and the communities they live in and for UK plc.

We look forward to contributing to this debate.

⁵ The GovTech Fund is a US venture capital fund dedicated to government technology startups <http://www.Gov.Techfund.com/>



What is Gov.Tech?

The trend of disruption and new business models that became FinTech in Financial Services is a growing phenomenon in government and the public sector too.

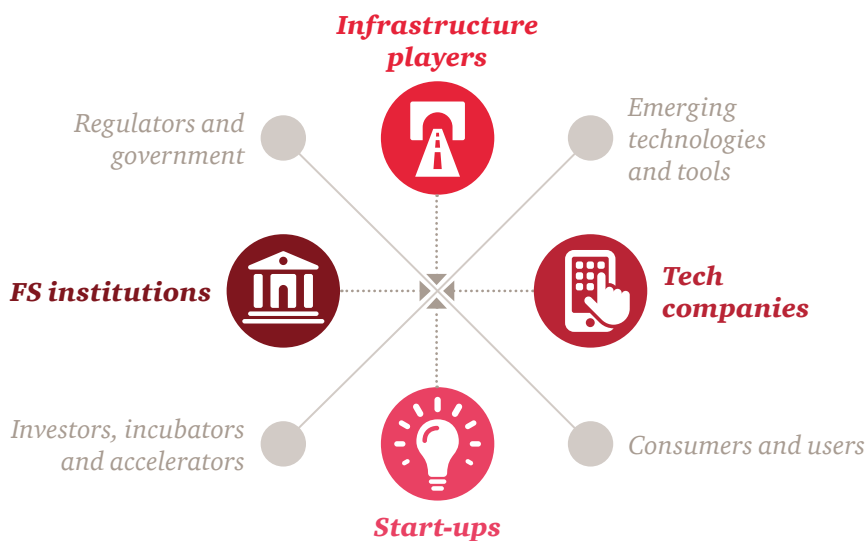
FinTech is driven by entrepreneurs using modern technology to disrupt the norm and deliver innovative products and services that consumers really want (see Box).

What is FinTech?

FinTech is a dynamic segment at the intersection of the financial services and technology sectors where technology-focused start-ups and new market entrants innovate the products and services currently provided by the traditional financial services industry. As such, FinTech is gaining significant momentum and causing disruption to the traditional value chain.

Funding of FinTech start-ups more than doubled globally in 2015 reaching \$12.2bn, up from \$5.6bn in 2014. Cutting-edge FinTech companies and new market activities are redrawing the competitive landscape, blurring the lines that define players in the FS sector (see Figure 1).⁶

Figure 1: FinTech is a complex ecosystem



⁶ <http://www.pwc.co.uk/financial-services/fintech/assets/FinTech-Global-Report2016.pdf>



So how can we define Gov.Tech?

There are three important ingredients:



It's about new and better ways to enable citizens to engage in their communities and receive the public services they need, powered through digital.

It's fuelled by new technologies, and joining up data and service delivery in a mobile and connected world.

It's created by entrepreneurs, innovators and small businesses – often people who have worked in government and the public sector and who can see exciting new ways of delivering public service outcomes.

Traditionally government and public sector systems have been built in-house or by large IT companies. Data has been stored, and software developed, on proprietary platforms and very few are designed to share data or talk to each other.

But the world is changing. With 84% access by the public to broadband internet, the ubiquity of the smart phone and the proliferation of connected devices, consumers increasingly want to interact with services and administer their lives in different ways – such as online-banking and internet shopping.⁷

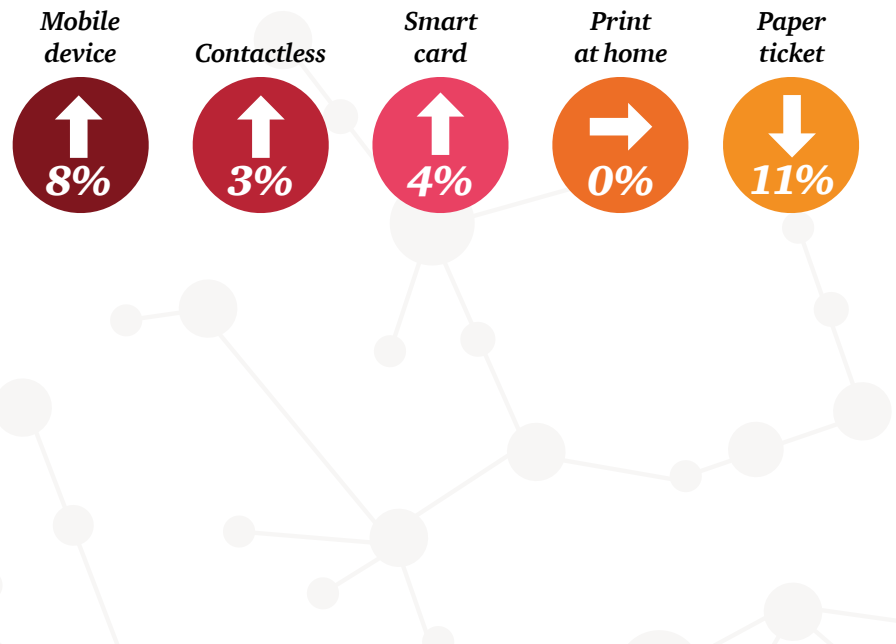
Those same consumers now expect to interact with providers of public services in the same way – from scheduling hospital appointments to planning a journey across different modes of transport and paying via smart ticketing (see box).

⁷ A <http://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2014-08-07>

**Smarter moves:
Growth in public transport in a digital era**

Our fourth annual ticketing survey explores how smart technology is changing customer behaviours and expectations when it comes to public transport. For the first time, the survey shows a preference for smart tickets over non-smart options. While 34% of the public we surveyed have a future preference for a paper ticket, 46% would prefer to use a smart option (a combination or smart card, contactless bank card and mobile device). And the number of people who tell us they would like to use it is rising (see Figure 2) suggesting transport service providers need to embrace new technology.

Figure 2: Shifts in user preferences for bus and rail ticketing in the UK



There's also a big pay-off for government and the public sector in its drive towards 'digital by default' – it's less expensive and offers the opportunity both for a better user experience and access to more support in their local community.

But going digital is more complicated than digitising existing manual processes – it's about finding new ways to connect with citizens in their communities. And of course there is the need to avoid excluding those, particularly the elderly, of whom only 41% (households aged 65) have an internet connection.⁸

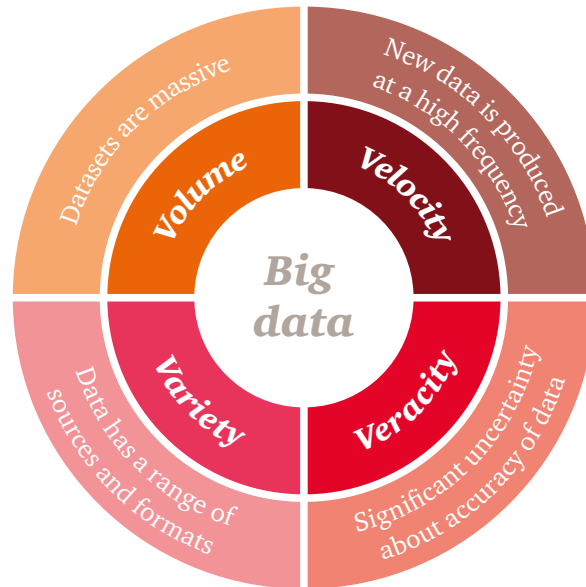
It also means joining up existing data (both inside and across organisations – so-called 'big data'), breaking down data silos and driving real innovation in new Apps and service combinations while safeguarding privacy and coping with threats such as cyber-attacks (see box).

⁸ <http://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2014-08-07#household-internet-access>

Opening up good data⁹

Research into the use of open data and data analytics has highlighted that the volume, veracity and speed of data all need to be improved (see Figure 3).¹⁰ Overall, the quality, accuracy or completeness of the underlying data within organisations is often the biggest hurdle to making good decisions. There are also often limitations on the ability to share data for different purposes: frequently data provided by an individual or business to one public agency is done so under terms and conditions which mean that it cannot be automatically shared with another agency without prior consent. This needs to be addressed to realise the potential of big data.

Figure 3: What's different about big data?



⁹ As we discuss in 'Big data, better public services', PwC, 2015

¹⁰ 'PwC's Global Data & Analytics Survey 2014: Big Decisions', PwC Big Decisions, 2014. www.pwc.com/gx/en/issues/data-and-analytics/big-decisions-survey.html

What type of services are being provided?

There are many different types of services being designed and developed by businesses in the Gov.Tech arena, many of which are already being implemented in the UK as well as around the world.

Democracy and community engagement

New technology is being used to enable voter participation and involvement in consultations on a mass scale. An example in India is **MyGov.In** which facilitates citizen-government dialogues on important governance matters. The US has **challenge.gov** to crowdsource ideas in the form of online citizen competitions.

More locally, new ways are being created to enable community engagement and participation and to improve local services by encouraging users to report on the quality of public services and identify problems to fix. A typical example is MySociety's **FixMyStreet** App to report faulty street lights and potholes. The integration of this app with council systems has resulted in savings in staffing costs and a 50% reduction in average call-handling times for street repairs.¹¹



Platforms matching citizens with services to meet their needs

Online platforms can help bring users of services and potential providers together and connect those in need to service providers, improving outcomes as a result.

Examples include platform **GetMyFirstJob.co.uk** which matches young people with apprenticeships. **Third Space Learning** is a platform that connects academic talent from around the world with children at risk of failure in primary schools across England. And **FutureGov's Scout** software joins up multiple service offerings for disabled children and enables them to 'self-serve' based on their needs.

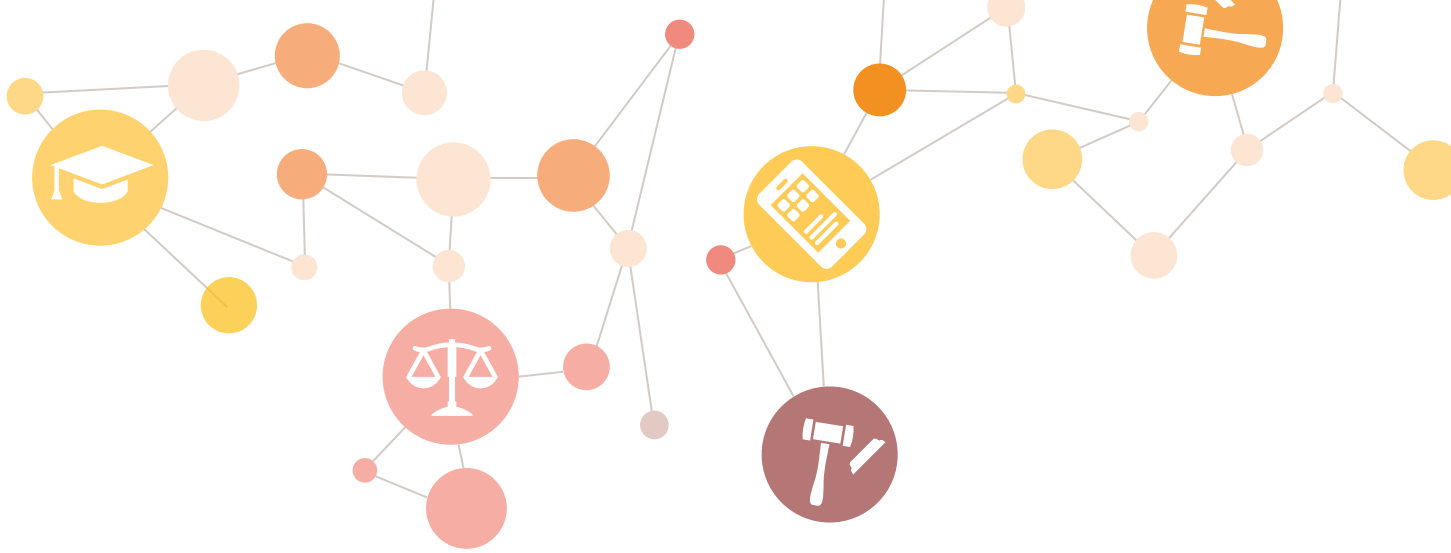
Insight through data and analytics

Government and public sector bodies often generate huge amounts of data in their interactions with the public, creating significant data assets. As data is opened up for use beyond the public sector, many solutions are being created to use this data to improve decision-making and deliver insights.

Transport for London¹² provides just one example of how big data is being used to improve outcomes for the public, using the data collected from its Oyster card. In the US **SmartProcure** is a procurement intelligence platform which provides historical purchasing data analytics to drive informed procurement decisions and cost savings.

¹¹ <https://www.fixmystreet.com/about/council>

¹² 'How Big data and The Internet of Things Improve Public Transport In London', Forbes, May 2015. www.forbes.com/sites/bernardmarr/2015/05/27/how-big-data-and-the-internet-of-things-improvepublic-transport-in-london/



Online support communities

There are also many websites which connect people with similar needs and experiences to self-manage aspects of their life, improve service provision and reduce delivery cost, particularly in the health sector.

For example, **Great White Wall** allows users in the UK to assess their mental health using online tools and register for guided support courses. **Patients Like Me** is a free patient network in the US where people with similar medical issues can better understand their diseases, share condition and treatment information and get support from peers to improve their health and wellbeing.

Future trends

There are also a number of other important trends that are likely to stimulate and drive new areas of Gov.Tech activity in the near future.¹³ These include:

- **Blockchain technology** which has the potential to help government and the public sector to collect taxes, deliver benefits, issue passports, record land registries, assure the supply chain of goods and generally ensure the integrity of public sector records and services. For instance, in the NHS the technology offers the potential to improve health care by improving and authenticating the delivery of services and by sharing records securely.¹⁴
- **Biometric monitoring** – Future biometric monitoring systems will not only measure different aspects of a person’s behavioural or physiological signals but also administer treatments based on the results. A good example of this is Emperra in Germany where wireless injection pens produce algorithms to monitor potential patient problems.¹⁵
- **Automated vehicles** – Automated vehicles could create major efficiencies in transport services, with driverless cars and trains key developments. But the applications stretch to other areas, such as health care where the idea of automated ambulances is being discussed.
- **Artificial intelligence (AI) and cognitive computing** – This has the potential to create possibly the greatest level of disruption within public services. For instance, the Department of Work and Pensions is already embracing the concept of cognitive computing whereby it aims to develop online unemployment support that can intelligently predict the best support routes for vulnerable people by directing users to the correct portal. In under-resourced areas of mental health, it is hoped that AI can fill basic gaps in consultation and diagnosis. In addition, cyber security could also be greatly enhanced through improved speech recognition and face detection.

So there is no shortage of opportunity as new and disruptive technologies offer the potential to transform public services and improve outcomes. The real challenge for Gov.Tech is to invest where there is the greatest opportunity to deliver better for less while achieving the commercial returns needed to secure the investment the sector needs to continue to grow and innovate.

¹³ For more on future trends, see The World Economic Forum’s Top 10 Global Emerging Technologies for 2016 <https://www.weforum.org/agenda/2016/06/top-10-emerging-technologies-2016>

¹⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf

¹⁵ <https://www.emperra.com>



The Growth of Gov.Tech

With growth of 189% in investment in Gov.Tech suppliers in the UK over the past two years the future looks exciting. How is Gov.Tech attracting investors in the UK, and how does that compare to Europe and beyond?

Our analysis shows that start-ups and investment in Gov.Tech is a growing trend in Europe and the UK. Here, most of the SMEs are clustered in the South East. This is likely to be because of the highly centralised nature of the current UK government, but going forward decentralisation is likely to stimulate increased start-ups and innovation in the regions. The government's recent budget commitment to a series of regional innovation centres should reinforce this trend.

Investment trends

We looked at how investment into the UK Gov.Tech sector compares to that of Europe and the US. Our analysis is based on venture capital deals from global data supplied by CB Insights.¹⁶ While venture capital funding is just one element of how SMEs attract the investment to grow, it should be a reliable indicator of sector attractiveness and growth.

The analysis considers growth over time in both volume and value, and regional spread of Gov.Tech investment. This suggests that Gov.Tech investment and, by inference, the market for Gov.Tech services, in the UK is performing better than the rest of Europe, but is still behind the US.

¹⁶ Based on CB Insights coverage of venture capital funding into Gov.Tech SMEs. Based on a keyword search that stripped out the largest corporate funding deals as of the 9th June 2016. Analysis in dollars and converted where appropriate to sterling using average exchange rates over the relevant periods.

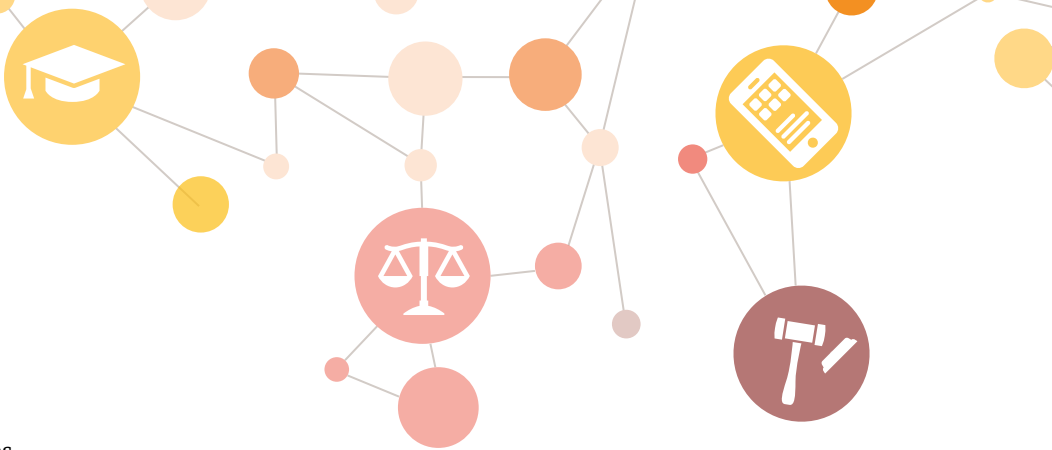
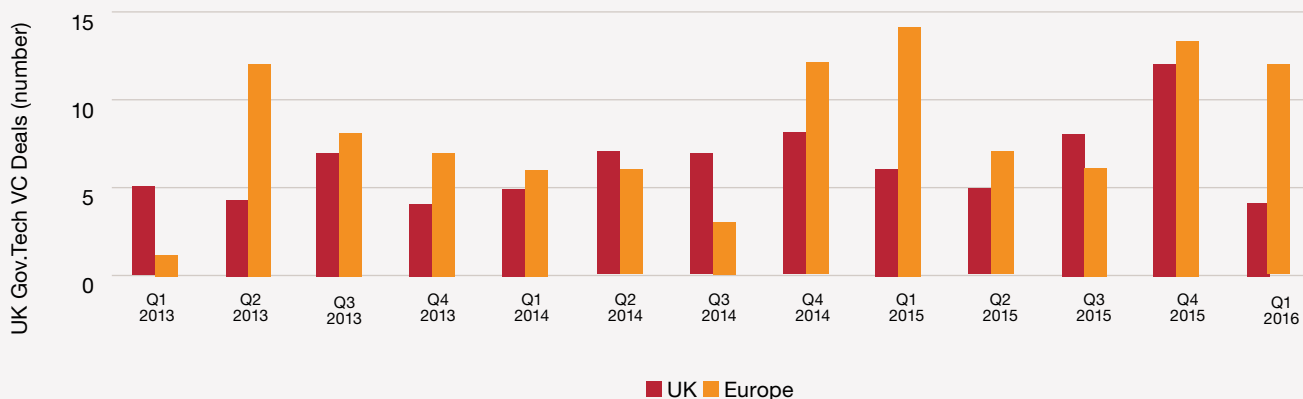


Figure 4 shows that UK deal volumes have grown steadily over the last three years (with a slight dip in the first quarter of 2016). The number of VC deals in the sector grew by 55% between 2013 and 2015.

Figure 4: Number of UK and European Gov.Tech VC Deals

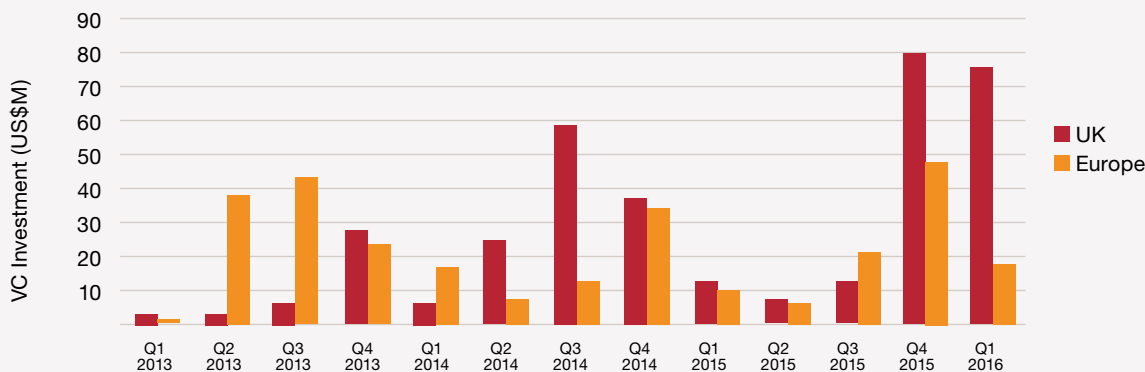


Looking at deal values related to the Gov.Tech sector (see Figure 5), values also grew by 189% over the period from 2013 to 2015. There was also a marked upturn in the UK in the six months ended March 2016 with an all-time high in deal activity of over £100m (\$156m).

Although identifying the value of VC deals in a nascent sector such as Gov.Tech is challenging, it is clear from the trend lines that not only are UK values increasing but that they are now on a par with the overall investment in Europe.

There may yet be an impact from Brexit, given the general uncertainty in the market, but the challenge for government and the public sector to do better for less will not go away and so there will continue to be a need for investment, and Gov.Tech to deliver the transformation needed.

Figure 5: UK and European Gov.Tech Deal Values in US\$m



Note: for 2015 Q4 and 2016 Q1 some European deal values were not disclosed and are not included in the relevant bars in the chart

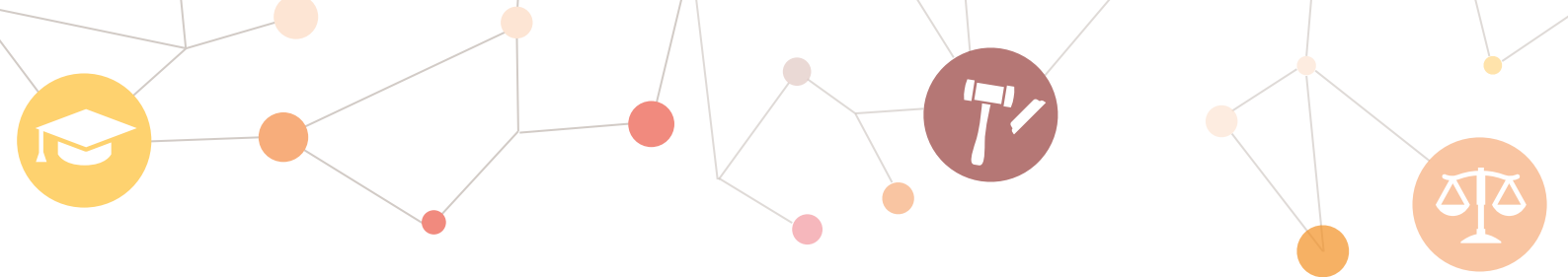
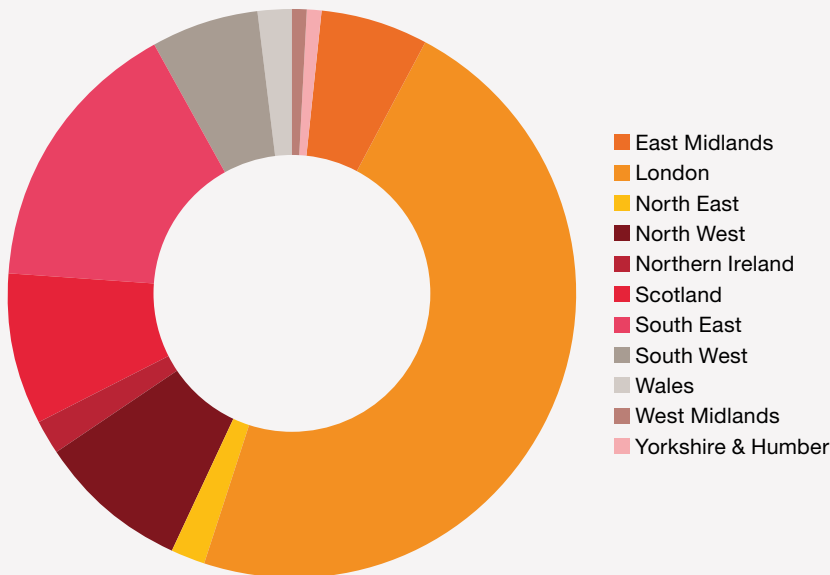


Figure 6: Regional Breakdown of UK VC Deals into Gov Tech Firms



If we breakdown Gov.Tech VC deals by region (Figure 6) we can see that London and the South East dominate the sector. This is not surprising given that UK Government is London centric, with greater opportunities for government and public sector contracts nearer to Whitehall. Nevertheless there are some notable exceptions with Scotland and the North West gaining 8.8% of overall deals each.

The UK and Europe often follow trends set in the US and the CB Insights data shows that the US is the largest market for Gov.Tech. Despite excluding health deals from the analysis (as generally private sector focused in the US), we see a consistent deal flow with deal values rising quickly, particularly over the last year (Figure 7). This again suggests a growing sector generating significant interest in the investment community.

Figure 7: Growth of US Gov.Tech Market since 2013

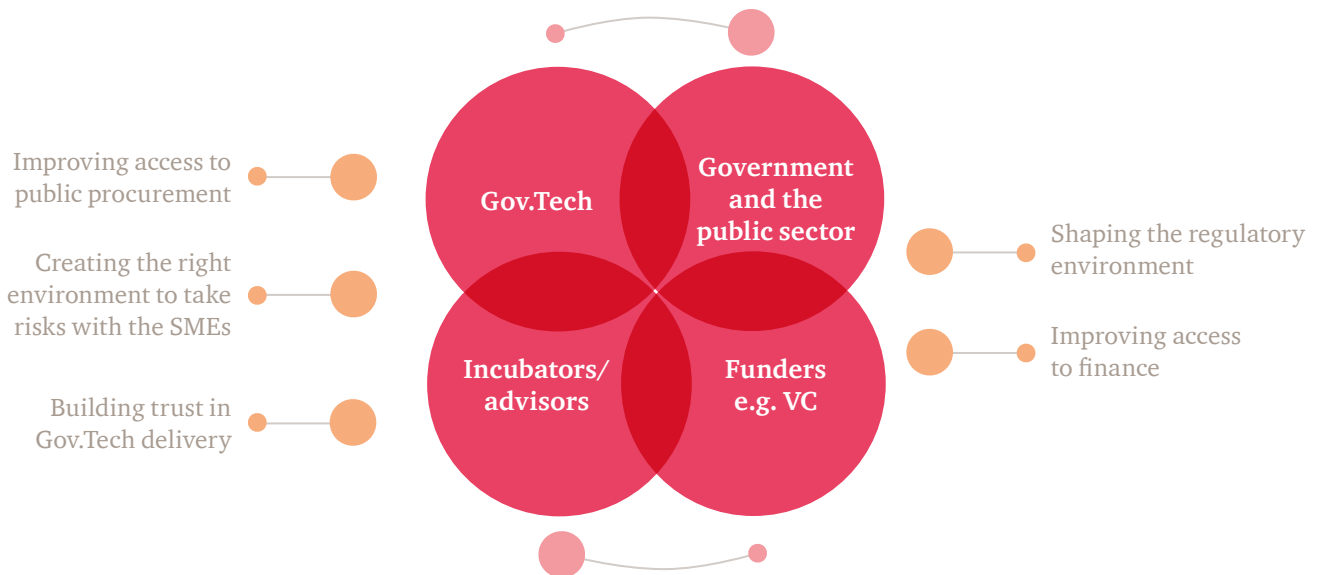


With the right conditions, we could see a similar Gov.Tech growth trajectory in the UK as the sector continues to innovate, builds its capacity and capability and secures a greater share of the market for services to government and the public sector.



How can the potential of Gov.Tech be realised?

Gov.Tech clearly has exciting potential but is in its formative stage of development. So how can the growth and development of the sector be accelerated to deliver real benefits for users of public services?



Through research, insight and engagement with Gov.Tech suppliers, venture capitalists and our own experts, we have identified six areas where action is needed to underpin the future growth in the UK of Gov.Tech.

Making it easier to do business with government and the public sector

In the UK, the public procurement cycle can still be daunting for a small firm. A majority of the respondents to our pilot online survey of tech SMEs

identified procurement mandatory requirements as the top barrier to working with government and the public sector. The Centre for Economics and Business Research has also shown that the UK public sector purchasing process is the longest in Europe – 53 days longer than the EU average and 20 days longer than the Italian process (the next longest).¹⁷

In addition, our pilot survey respondents identified the long sales cycle as an issue. Selling technology to government and the public sector

requires sourcing leads, submitting proposals and counter-proposals, completing mandatory organisational and financial data, sending clarification questions, receiving answers, providing accreditation or reference sites, waiting for official and public comments and sometimes lengthy waits for an outcome. This can mean that entering the contest to sell to government and the public sector is not easy for SMEs.

These issues are not, however, news to government and the public sector

¹⁷ CEBR, UK public sector has most expensive procurement process in EU, 19 June 2013 - <http://www.cebr.com/reports/uk-procurement-most-expensive-in-eu/>



which has been working hard to improve access of SMEs to digital opportunities. Indeed, the new Digital Outcomes and Specialists Framework¹⁸ already has over 3000 suppliers, of which 90% are SMEs and there is strong intent (and policy) to ensure a third of government spending is awarded to SMEs.

But more can still be done to improve the process for SMEs. In particular, public sector bodies in the UK need to develop more rapid learning cycles and move away from pilots focused on a particular problem to a pre-implementation system (purely about testing technology and how to integrate it with existing systems).¹⁹

Creating the right environment: government culture and skills

According to a TechUK survey, 71% of civil servants in key roles see internal culture as one of the biggest barriers²⁰ to working with SME suppliers. Over a third of respondents involved in the design or procurement of IT services think that their department's capabilities in change leadership, innovative thinking and digital capability are unsatisfactory or poor.

What really stands out in public sector IT procurement is the lack of SMEs and the dominance of large corporates.

Around a third of civil servants are unsure if their departments want to procure more services from SMEs, and according to the TechUK survey only 19% confirmed they have access to a wide range of suppliers.

The government is trying to rectify this with a stated intention of awarding 33% of all contracts to SMEs in the future. This creates a supportive policy base from which Gov.Tech firms can work going forward.

But if government and the public sector wants to embrace the innovation that Gov.Tech can bring, then leaders and policy makers need to be better skilled at understanding the art of the possible. Otherwise the opportunities that come to market will tend to be focused on digitising existing manual processes rather than doing things completely differently.

As well as being informed buyers of Gov.Tech services, there is also a need to transform culture and organisation to create the environment for new ideas to succeed and innovative thinking encouraged.

Sunderland Software City is an example of using partnerships to bring public and private sector suppliers, plus academia, together to transfer knowledge and create an environment where Gov.Tech can flourish.

Sunderland City Council has supported Gov.Tech by building on its cloud infrastructure, providing an opportunity for SMEs to trade on the government tech framework (known as g-cloud). Alongside this, it explores routes to market and access to finance, and has created 100 new software businesses. The goal is 800 by 2020.²¹

In addition, there is a need for the drive towards more 'open policy making' to be ramped up. This approach puts an emphasis on collaborative approaches so that "policy is informed by a broad range of input and expertise and meets user needs".²²

This is fertile territory for tech SMEs which are daily developing new apps and analytical tools to provide the sort of insights that policy makers need to deliver better outcomes.

Putting the user first and testing and refining solutions real time is natural for tech SMEs. This in turn should help policy be "data driven and evidence based" and based on the principles of co-design, with feedback from users improving services delivered.

It does require, however, a greater willingness by policy makers to involve the 'unusual suspects' in the policy making process "bringing novelty and identifying previously hidden problems and opportunities."²³

¹⁸ <https://digitalmarketplace.blog.gov.uk/2015/10/27/digital-outcomes-and-specialists-an-overview/>

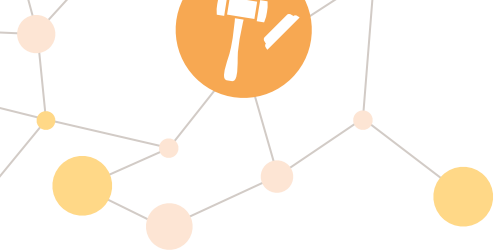
¹⁹ From discussion at the TechUKPS 2030 Conference, The Better Care Break Out Session

²⁰ Tech UK Survey of 929 civil servants, http://www.techuk.org/images/techUK_Market_Engagement_Tools.pdf

²¹ Sunderland Software City, 2020 Strategy

²² <https://www.gov.uk/guidance/open-policy-making-manual>

²³ 'iUrban: innovative city strategies for delivering sustainable competitiveness' PwC, April 2014. www.pwc.com/gx/en/psrc/global/assets/pwc-innovativecity-strategies-for-sustainable-competitiveness.pdf



Case Study

*iUrban – Inspire – Innovate – Implement*²⁴

The convergence of digital technologies – the diffusion of smart personal devices, data-sharing platforms, ubiquitous and cloud computing – is opening up new possibilities for the delivery of urban services while also creating economic and innovation opportunities in cities. Indeed, many cities are increasingly nurturing open data strategies, i.e. making local data on services (e.g. water and transport flows, planning, the built environment, parking and waste collection) freely available to wider audiences, such as businesses, researchers, entrepreneurs and citizens at large.

Opening up city data can contribute to a city's sustainable competitiveness in many ways, including:

- **By increasing democratic participation, accountability and transparency:** With more (and more transparent) information about the city's local government actions, public decision making becomes more accountable and citizens have more opportunities (and incentives) to be actively involved in urban affairs.
- **By spurring innovation and new business opportunities:** Wider access to city data makes it possible to bring together companies, researchers and entrepreneurs who collaborate to solve city problems, in an 'open innovation' fashion. With open data, a city's challenges can involve everybody in finding a solution. Many new technology solutions and urban 'apps' are being developed with open city data, leading to new commercial opportunities.
- **By improving a city's service provision:** Ultimately, open data – and the new solutions developed from it – can be used to challenge service delivery models (e.g. water, electricity and public transport), and help find new ways to deliver more efficient solutions. The open data movement is still in the early stages, but is already delivering results in cities, such as Dublin and Helsinki. In other cities, such as Manchester, open data initiatives are increasingly intertwined with new generation 'smart city' and umbrella-like digital strategies.

Our study suggests, however, that implementing open data initiatives in cities is not without its challenges and requires a number of key enablers: distributed leadership, prioritisation, choosing the right scale while involving private companies, grassroots movements and agile brokers within the municipal administration.

Building trust in Gov.Tech delivery

Trust is important for the future of Gov.Tech, and particularly the willingness of government and the public sector to purchase from SMEs.

Perceptions of risk and failure can also inhibit procurement from Gov.Tech firms. Government and public sector organisations have a duty to consider the risks of awarding contracts for important public services. Failure of such services is likely to cause hardship for the most vulnerable, attract press attention and divert resources from essential services. It is therefore often seen as a safer option to trust the larger companies with strong balance sheets and tried and tested solutions.

But without an element of trust and willingness to take risks, small businesses will not invest in developing innovative solutions. Indeed, our pilot survey of Tech SMEs identified a symptom of this challenge: a belief by the majority that bigger suppliers tend to have the market 'sewn up.'

Of course, there do need to be safeguards – the use of public money must be accounted for and value for money delivered. It is also the case that talented developers do not always have the business acumen to ensure their great products flourish as sustainable businesses.

Small businesses often need help to succeed, especially given some of the specific barriers and challenges of doing business with government and the public sector. Advice on sales, growth, employment, securing investment and financial administration can be invaluable.

A number of incubators are starting to fill this space, such as IncuBus and StartupBootcamp. In some cases SMEs compete to win support which can include financial help, mentoring and partnering.

²⁴ 'iUrban: innovative city strategies for delivering sustainable competitiveness' PwC, April 2014. www.pwc.com/gx/en/psrc/global/assets/pwc-innovativecity-strategies-for-sustainable-competitiveness.pdf

²⁵ <https://www.gov.uk/government/publications/open-standards-principles/open-standards-principles>

Big businesses (including PwC) also need to play a part— whether working alongside SMEs to help nurture and grow them, or with funders to give them access to the early financial support needed, or as brokers introducing innovators to existing government and public sector clients to explore the art of the possible and new forms of joined up service delivery.

Shaping the regulatory environment: open standards and data privacy

Open standards potentially allow data collection and data exchange across lots of different public sector institutions and different formats. This is the foundation that allows Gov.Tech applications to expand and thrive on a large scale.

The government's open standards principles were first published in 2012.²⁵ Open standards allow interoperability between Gov.Tech solutions and existing government systems. They help to stimulate the market for open source and proprietary software and provide greater transparency and opportunity, which should, in turn, bring more innovative services to the citizen.

But while standards exist, data sharing is still a challenging issue across departments and authorities. Even sharing code can sometimes be forbidden under current data guidelines.²⁶

For Gov.Tech to move forward on a large scale, the public sector needs to extend open source standards needed to enable software from multiple suppliers and purchasers. Deploying open standards widely will enable many more Gov.Tech solutions to emerge as we can see happening internationally (see Box).

Improving access to finance

Along with most SMEs, Gov.Tech companies can often struggle to access funding, which is compounded by the often long sales cycles involved in doing business with government and the public sector.

The immediate cash flow squeeze has been partly alleviated by the government and public sector 'prompt payment code' which has cut down the time firms taken for government and the public sector to pay suppliers.

But regardless of whether an SME is part of a larger consortium, one common complaint is that the traditional finance market does not take into account the unique problems facing the supplier of tech solutions to government and the public sector.

In this context, it is instructive to look at the more developed US market for funding tech SMEs supplying to government and the public sector. In particular, an exciting new development is the Gov.Tech Fund, a venture capital (VC) fund that specialises in delivering financial support to firms supplying technology to government and the public sector.

According to Ron Bouganim, Founder and Managing Partner of the Gov.Tech Fund: "VCs have taken notice: since we launched our fund 12 months ago top-tier VCs, and angels have invested \$45m alongside our \$6m in the Seed, Series A and follow-on rounds of our seven portfolio companies. A number of their SME's already have term sheets in hand that indicate 2016 will see that follow-on investment figure more than double to \$100m."²⁷

There are, of course, a multitude of different funding options available for Gov.Tech and, as with most emerging sectors, some are used simultaneously:

- Venture capital or angel investor funding.
- Indirect government funding through foundation trusts and universities.
- Not-for-profit funding through charities and the third sector.
- Citizen-led funding through individual donations and crowdfunding.

Gov.Tech SMEs often face the challenge of having less clear cut business models and fewer paying customers than other technologies. As a result, venture capital has difficulty justifying investments in spaces where market revenue is not clearly defined.

In the UK the National Endowment for Science, Technology and the Arts (NESTA) has been exploring funding mechanisms that can support 'social innovation'. This has led to NESTA Impact Investments, a VC fund that actively seeks out SME's with a social purpose. It currently funds FutureGov, a Gov.Tech SME with a focus on local government.

Although NESTA Impact Investments' portfolio is restricted to a focus on children, the aged and sustainability (e.g. fuel poverty) with funding to the £150,000-£1m range, it is an important first step in ensuring that SME's with a social purpose can, with the right support, upscale beyond proof of concept.²⁸

Of course, there is no 'one size fits all' approach to funding Gov.Tech. But taking action on these five areas will lay the platform for its potential to be achieved.

²⁶ From discussion at the TechUKPS 2030 Conference, The future of local government Break Out Session

²⁷ Ron Bouganim, Managing Partner at Gov.Tech Fund - <http://govtechfund.com/>

²⁸ Nesta Impact Investments, What we look for in an investment - <https://nestainvestments.org.uk/wp-content/uploads/2015/03/NII-what-we-look-for-in-an-investment-March2015.pdf>

Why Gov.Tech is great for UK plc

Ultimately, Gov.Tech can strengthen the link between government and the public sector, small businesses and the citizen and allow for greater collaboration, problem solving and benefit sharing between all three.

Creating an environment where government, the public sector, small businesses and citizens can be fully involved is the key to energising a virtuous circle of innovation in Gov.Tech. This needs support from other important stakeholders including business incubators and funders to make the most of this opportunity.

Great for government and the public sector

Gov.Tech helps solve some of the difficult problems that government and public sector organisations face in a cost effective way by introducing innovation from other sectors. Rather than 'group think', this results in new and fresh ideas, and potentially new technologies too.

As a result, Gov.Tech can help to provide public services that are cheaper, can be adapted to changing demand and can reach more people. Gov.Tech can also help join up disparate existing services into more easily accessible and integrated solutions, offering the potential of one 'customer journey'.

Government and public sector organisations can then stay focused on the things that only they can do and deliver the outcomes the public wants and needs.

Great for business

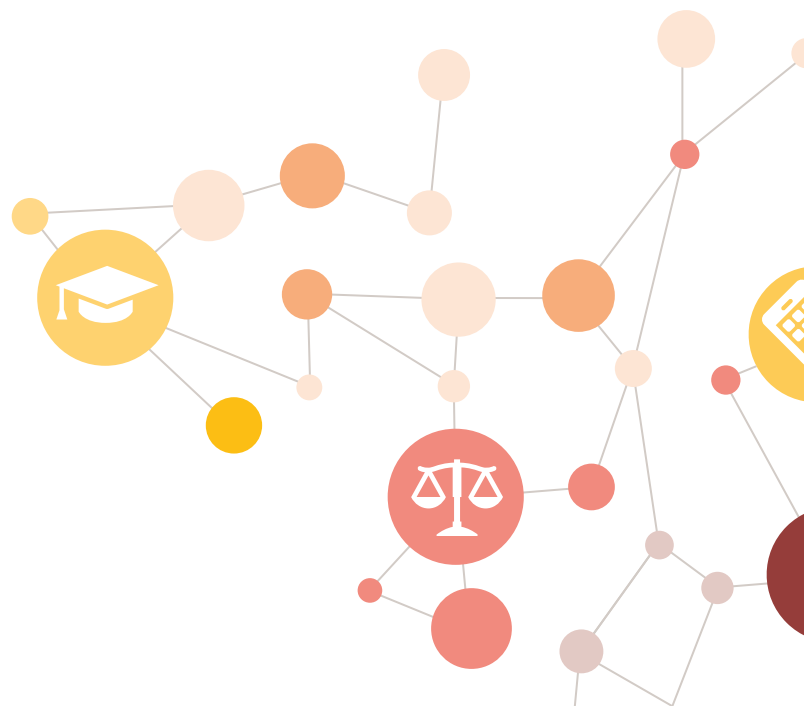
The government is serious about getting the 4 million businesses that drive our economy more involved in public administration. Recent policy initiatives to widen the market to ensure that SMEs attract a third of all public procurement, and the New Digital Outcomes & Specialists Framework, are creating unprecedented access to public sector external contracts. With greater devolution, this spend will also create jobs and growth in communities across the UK.

Great for citizens

From a citizen's perspective, using Gov.Tech solutions should bring better services, one-stop shops and more engaged communities. It should enable an improvement in the user experience and better outcomes. And the savings made will allow funds to be re-directed to more valuable services.

Gov.Tech can become a core part of the wider SME ecosystem and provide a key component in the drive to deliver better public services but with less money.

We welcome the potential that this community of providers has to offer and invite them to join with us in helping government and the public sector to deliver better for less.



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