

Jersey's digital tech ecosystem

Driving economic growth and transformation

Forewords

Tony Moretta, CEO, Digital Jersey

Digital technology is no longer a nice-to-have, something the boffins down the corridor deal with, and a concept for business leaders to think about next week or next year. Digital technology is now a fundamental part of almost every business in Jersey, from the smallest start-up to the largest corporation.

That we've gone from an emerging industry to what powers all sectors of our economy in the past five years is a testament to the innovators and pioneers, as well as those who've recognised the game-changing power of technology and worked to grow and adapt their own knowledge and skills.

As the Chief Executive of Digital Jersey, I am personally proud of the work done by my team, and all who work with us, to develop such a thriving environment for growth and creative thinking.

It was my belief that we'd reached a critical juncture in our development that led to this Tech Nation report. It gives us an 'outside in' view of what we're doing well,

where current and future opportunities lie, and what the unmet needs are to ensure the good work goes on.

As an industry we punch above our weight. That in turn helps our island do likewise.

Digital Jersey has grown through membership of the Hub, the creation of our IoT lab DJX, the Sandbox Jersey testbed proposition which is garnering international attention, and our Digital Jersey Academy to ensure the workforce of today and tomorrow is equipped with the skills employers need.

This report offers a deep and meaningful insight into where we are today. I hope it will also create a springboard to success tomorrow and beyond.

Dr. George Windsor, Head of Insights, Tech Nation

Tech Nation exists to empower ambitious tech entrepreneurs to grow faster through knowledge and connections; to build a UK economy fit for the next generation.

We are pleased to have collaborated with our colleagues at Digital Jersey on this report, and hope that the research we have conducted will support the continued growth of this thriving ecosystem.

Tech Nation helps startups compete globally to bring jobs, skills and higher productivity to the UK and build an economy that's fit for the future. We do this through a range of activities.

But we start with a clear understanding of the state of play – from this point, we can identify where our strengths lie, and where opportunities can be capitalised on.

This is precisely what we have done with Digital Jersey, and we look forward over coming weeks to being part of the conversation that leads to the prioritisation of technology in Jersey's economic, and societal future.

Introduction

Jersey is home to dynamic networks of tech entrepreneurs, forming a rich community that supports learning, collaboration and growth. In order to understand how the continued growth of the digital tech sector in Jersey can be better promoted, we have delved into the multitude of factors that indicate and contribute to firm performance.

This report gets to grips with these factors, exploring themes such as talent, informal collaboration and infrastructure, to paint a picture of the landscape. The report also makes recommendations on how the quality of information on the digital tech sector can be improved and how mechanisms for the promotion of growth can be put in place to secure a bright future of tech in Jersey.

Over the last year, the performance of Jersey's digital tech ecosystem has gone from strength to strength, confirming its place in the rich business landscape of the island. Jersey's great strength in digital tech and innovation has been built from a base of strong professional services. The application of new technologies to these fields has demanded creative thinking and entrepreneurship, and is demonstrated by the breadth of tech activity right across the island.

In Jersey's evolution to a tech-enabled ecosystem, the island will need to leverage the powerful networks being forged by the next generation of entrepreneurs. To this end, the report addresses the role of these networks, and makes recommendations for their growth and development.

As this report shows, the digital tech sector makes an essential contribution to Jersey's economy. Every entrepreneur, innovator and employer in the tech sector can help make Jersey's the best place to start and grow a digital business.

Digital tech business landscape in Jersey

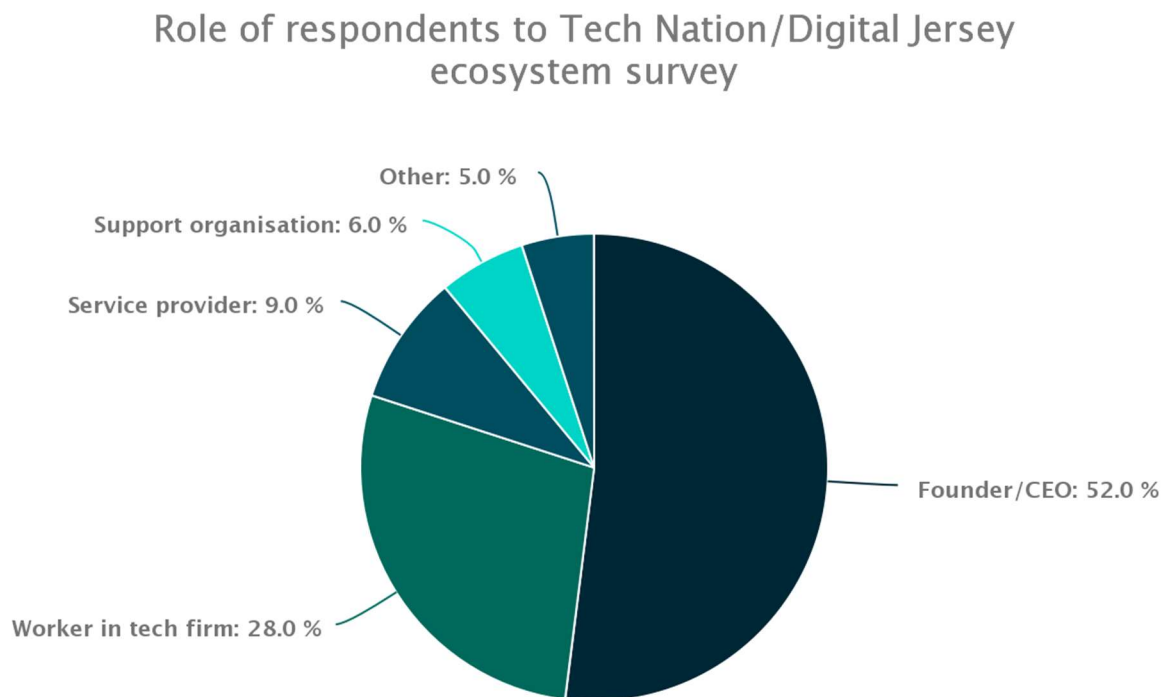
For the last 50 years, the business landscape in Jersey has concentrated on Financial and Legal services firms. In fact, it is estimated that [Jersey provides 1.5 percent of the funding of the whole UK banking sector](#). Jersey's financial centre is a custodian of £1.3 trillion of wealth, of which £150 billion resides in banks. Jersey's banks attract over £80 billion of funding from markets outside the sterling zone. This bedrock of business activity has provided ripe ground for the development of a thriving digital tech ecosystem. Some argue that although Jersey lacks scale, it benefits from a plethora of digital tech institutions that are locally owned and founded to serve the domestic market, in particular telecoms and Government institutions. Thus, economic activity – and value – is effectively contained on the island, with international connections leveraged, without talent being leaked.

However, this is not to suggest that the digital tech sector does not deliver significant value to the Jersey economy in its own right. Historically, the sector has been an important, and growing component of Jersey's domestic and international offering. For instance, the value of the [Telecoms industry](#) to Jersey was 2.4% of GDP in 2015, whilst the value of Agriculture was 1.1% of GDP and Hotels, Restaurants and Bars, 3.7%.

Adoption of digital services is also high in Jersey, suggesting that the island is ready for the consumption and development of new applications, and technology adoption amongst the business population to enhance existing services.

In assessing the state of the landscape it is important to understand the communities that are driving the ecosystem forward. As such, we conducted a survey of Jersey's digital tech stakeholders to understand the key aspects of the system, and the levers that could be pulled to facilitate further growth. As seen in Figure 1, the majority of respondents were founders and CEOs at 52%, followed by people who work in a tech business (28%), service providers (9%) and people who work in a support organisation (6%). 85% of respondents had their organisations headquarters based in Jersey, followed by international at 8%, UK at 4% and other Channel Islands at 4%.

Figure 1 Role of respondents to Tech Nation and Digital Jersey ecosystem survey



Respondents suggested that the top strength of the ecosystem in Jersey is its existing expertise in finance. This also had positive ramifications on the ability of tech firms to access growth finance.

Perceptions of Jersey as a digital tech hub

Respondents described the tech sector in Jersey with positive sentiment – including descriptions such as good, progressive, helpful, and worthwhile – reflecting a sense of optimism. The key strengths highlighted were that of a strong and helpful community, Jersey being a fantastic place to live and work, and the size of the island allowing for a tightly knit and well connected tech industry. This contributes directly to the digital business landscape, and paves ground for the growth of firms. However, a thorough investigation into the health of the island also demands a view on how it is perceived by others.

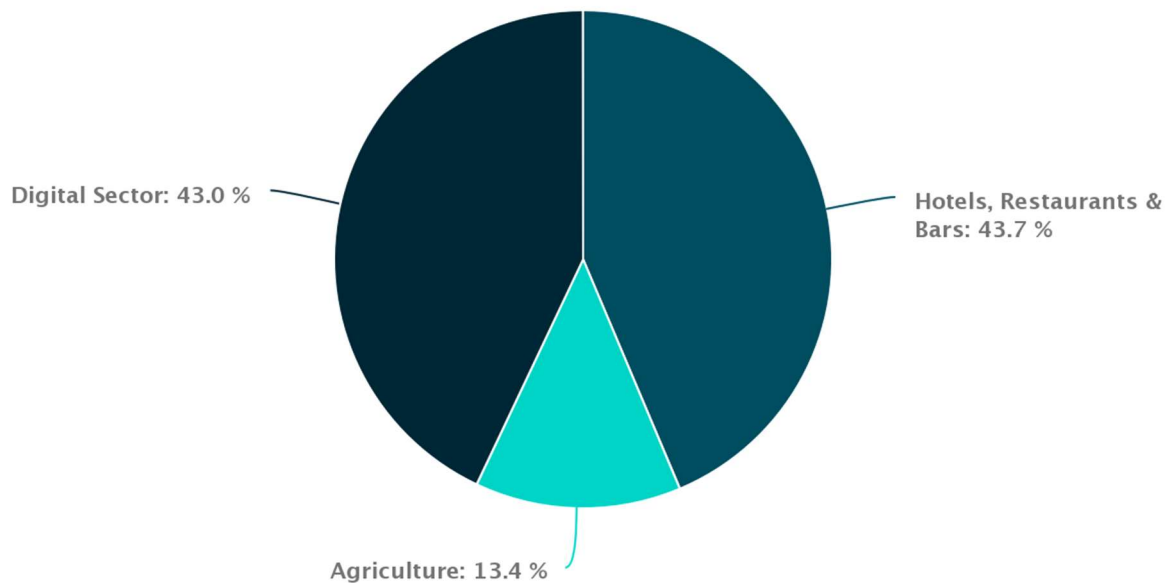
When exploring perceived levels of awareness of the Jersey tech sector in the UK and internationally we found that 81% of respondents thought that people in the UK were not aware of the digital tech sector in Jersey. Seven per cent thought that people in the UK would be aware. There was a similar pattern for awareness of Jersey's digital tech sector internationally, 85% of respondents thought that people internationally were not aware, while 11% thought that they would be aware.

Furthermore, when asked if they would recommend Jersey to a fast growing business the results were negative, with a Net Promoter Score of -26, with 40 detractors and only 19 promoters out of 80 respondents.

However, opportunities for Jersey businesses to scale in the UK and internationally were rated highly. 75% of respondents felt that there were good opportunities for Jersey tech companies to scale in the UK, while 65% of respondents felt that there were good opportunities for Jersey tech companies to scale internationally. Furthermore, only 36% of respondents felt that there were good opportunities for Jersey tech companies to scale in Jersey itself.

Only 8% of respondents were primarily trading in the UK, while 50% sold their products in Jersey, and almost 40% sold their products internationally. This suggests that the UK is perhaps an underutilised market for Jersey tech companies. In 2017 Jersey accounted for 1.42% of UK trade in services exports, at £3957 million, and 2.03% of UK trade in services imports, at £3357 million. Furthermore, Jersey was the 10th largest services export market to the UK in 2016. This relationship can be built on by the digital sector and through digital services.

Figure 2 Proportion of exports (value in £millions) from Jersey by sector



Access to finance and investment

In Jersey, 55% of those surveyed felt that access to finance was not a challenge.

55

Finance is the top strength pushing forward the digital tech industry in Jersey. 55% of respondents felt that accessing finance was not a challenge, while only 31% felt that it was. In addition to investment, common challenges around access to banking have been cited with regard to Jersey, with firms operating in tech requiring debt finance as part of the investment mix.

Of those who had raised investment, 70% had raised private equity finance. Only 5.4% of respondents had raised angel investment, while only 2.7% had raised venture capital. This suggests that angel investment and venture capital are underutilised means of investment and could usefully be developed. Many interviewees suggested that you might expect to see a more active angel investor

community in Jersey due to the large number of high net worth individuals. On the other hand, angel investors interviewed felt that the visibility of companies in Jersey could be improved in order to raise awareness of and stimulate investment opportunities.

Of those respondents who did find raising finance a challenge, this was predominantly due to a lack of awareness of the local tech industry and finding the right type of investors.

Infrastructure

In 2018 Jersey completed the rollout of its full fibre network to 40,000 homes and premises, the second jurisdiction in the world to have completed this. In comparison the UK predominantly relies in fibre to the cabinet resulting in slower internet speeds. The fibre optic rollout in Jersey was completed by [JT Group](#), which is owned by the Government of Jersey.

The result is that Jersey's average download speed places it within the top ten in the world. Thus, businesses can rely on fast and simple connectivity. Many respondents commented that fibre broadband is one of Jersey's key strengths, with regard to the international connectivity of the digital tech sector. Respondents commented on how this increased productivity, kept down overheads, allowed for effective remote offices and flexible working.

The JT Group have also invested in state of the art data centres. This has opened up new business opportunities for Jersey as companies look to store data in secure and well regulated jurisdictions.

It was reported that ease of mobility in Jersey catalyses personal connectivity. Jersey's unique geography – only 5 miles long and 9 miles wide – means that collaborators, customers, potential investors and mentors are in close physical proximity. This was commented on as a key strength by many interviewees and survey respondents. One respondent commented on how this helps create organic growth, without having to rely on, and invest in wider marketing or outreach campaigns.

International connectivity is also a positive feature for Jersey. It is quick and cheap to get to London from Jersey, at only a 35 minute flight to London, running frequently – 14 times a day. Many respondents commented on how this helped develop strong relationships with investors, and allowed them to often have offices in London or to serve the UK market.

People and tech

Talent supply is the top challenge for continuing growth of Jersey's digital tech ecosystem. 75% of respondents felt that recruiting skilled workers was a challenge – while only 14% of respondents felt that recruiting skilled workers was not a problem. In the UK, this challenge is also top of the agenda for many tech companies. In fact, in 2018, over 50% of firms surveyed across the UK suggested that access to talent was the foremost issue inhibiting their growth.

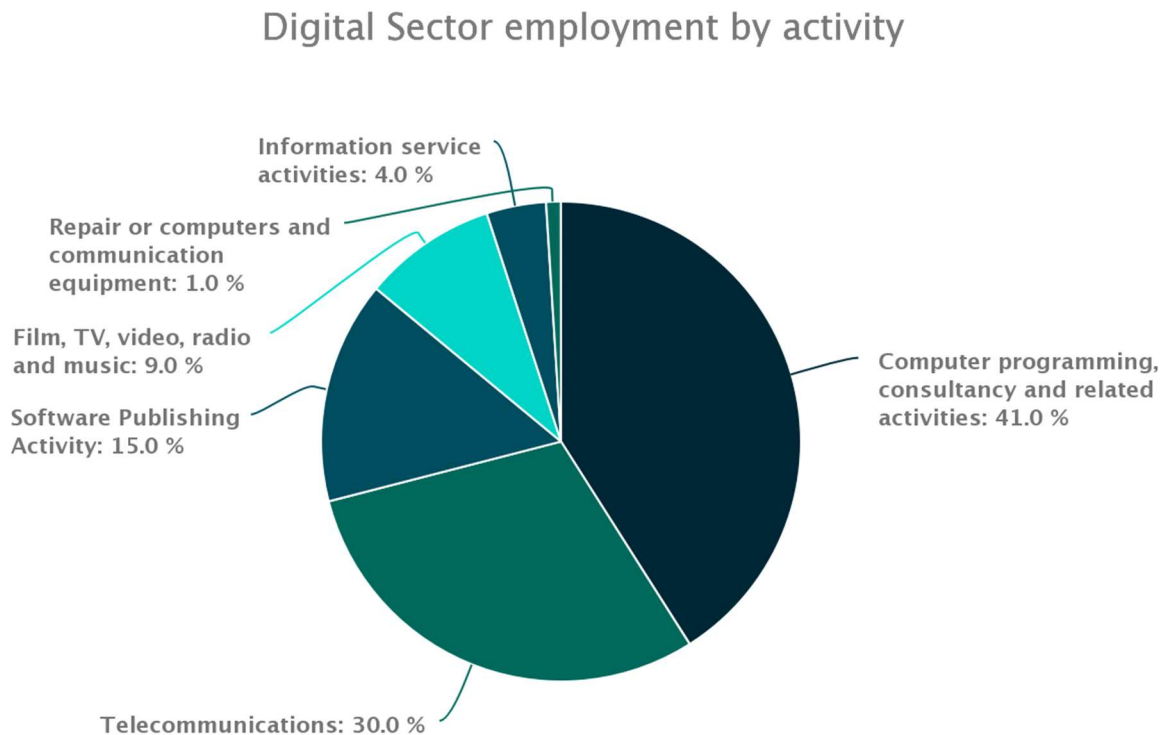
If we compare talent supply in Jersey to other UK clusters we can see a similar pattern. For instance, in Bournemouth 52% of respondents felt that recruiting skilled workers was a challenge – while only 30% of respondents felt that recruiting skilled workers was not a problem. Similarly, in Cambridge 65% of respondents felt that recruiting skilled workers was a challenge, while 21% did not think that it was a challenge.

Given the nature of official data in Jersey, which prevents the cross comparison of both occupations and industries for the purpose of identifying workers, we refer to LinkedIn data as a proxy for digital tech jobs and jobs in digital tech (replicating the classification of sectors, and occupations contributing to our definition of digital tech used in analysis of official statistics in the UK). To provide context, we define *digital tech jobs* as all people working in digital tech occupations, irrespective of the industry. For example, a software developer working in a retail company, whilst *jobs in digital tech* includes all people working in digital tech industries, including non-digital jobs. For example, an accountant working in a web development firm. We find that there are 3,032 individuals working in the digital tech economy in Jersey.

Compare this with official data in Jersey, and we find that Census data from 2010 showed there were around 2,050 people in digital occupations. This means that over

100 jobs have been created in tech over the last ten years – a significant contribution to the island’s economy.

Figure 3 Digital tech employment in Jersey by area of activity



Interpreting this data, and understanding its limitations is important. For instance, we make the assumption that the bulk of the working population in Agriculture, retail and hospitality do not have a LinkedIn profile these figures seem reasonable. **Jersey comparison**, 2,676 results for Construction, Retail, Leisure, Travel & Tourism when official Stats data indicates that 19,984 people work in these sectors.

Exploring the UK picture, we see that Norwich has 12, 948 users under this ‘digital filter’. That compares with a figure of 14,411 in the Tech Nation Report 2018. Norwich was felt to be an appropriate comparison given its relative geographic isolation, which helps mitigate against (a) the skewing of commuter figures, and (b) overlapping clusters borders.

If we consider growth in occupations, and the addition of non-digital employees working for digital businesses, this figure from LinkedIn is likely to be a robust proxy for jobs in the digital tech economy.

The digital transformation of sectors such as Financial Services is evidence of the pervasiveness of technology. Assessing demand for digital tech jobs gives an indication of all people working in digital tech occupations, irrespective of the industry. For example, a software developer working in a retail company. This is therefore a useful lens by which to understand the influence that technology is having now, and the prospects for its diffusion into traditional industries in the future.

Of this digital tech talent, it was reported by the community in Jersey that those people with technical skills are the most difficult to recruit for. Top of the shortage list are software developers, graphic designers and data analysts. However, other roles, such as marketing, business development and sales positions were also mentioned as hard to hire on the island. Additionally, respondents commented on the limited talent pool, a lack of deep domain technical knowledge and inflated salaries.

The shortage of tech talent is having a significant impact on Jersey businesses. First and foremost, it may be affecting their ability to scale. This has led to a number of alternative talent sourcing strategies to be deployed by employers, including opening offices off-island, employing off-island remote workers and consultants and to invest disproportionately heavily in recruitment drives.

By way of comparison, using LinkedIn data we are also able to understand the digital density of similar jurisdictions, such as the Isle of Mann and Guernsey:

Geography filter	Digital-Tech Employment	Total LinkedIn Users	Total employment
Jersey Jersey, United Kingdom	3,032	41,414	61,930
Guernsey Guernsey, United Kingdom	1,372	22,805	30,977

Isle of Man Isle of Man, United Kingdom	2,309	29,127	35,082
Gibraltar	1,731	17,125	28,029

Workforce, salaries and skills

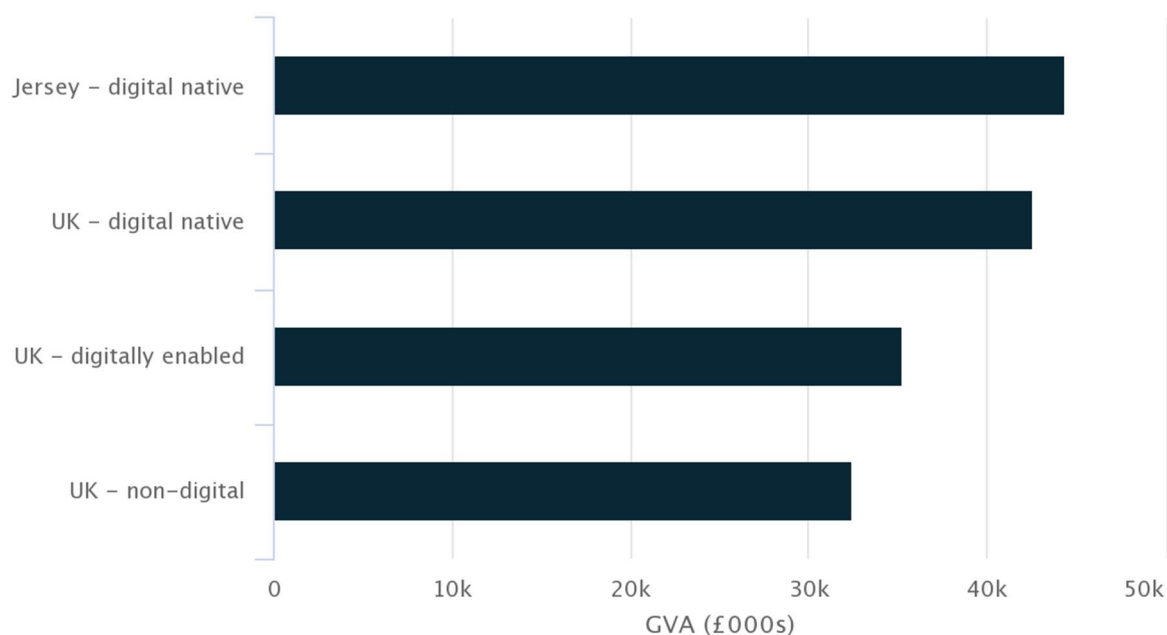
What proportion of respondents felt that recruiting skilled workers in Jersey was a challenge?

In Jersey, 75% of those surveyed felt that recruiting skilled workers was a challenge.

75

Unsurprisingly, given the posited shortage of some tech talent, salaries in Jersey are higher than the UK average for tech workers at £44,342 compared to £42,578. The premium associated with skills related to tech is clear, with non-digital skilled jobs in the UK commanding £32,477 on average. In other UK clusters, such as Brighton, the salary advertised for digital tech workers is £44,608 – slightly higher than that of Jersey, whilst in Plymouth it is £43,275, and Cambridge it is £46,730. Compare this to the UK as a whole, and the salary difference is more than nullified, with rental prices over 88% higher in Jersey compared to the UK average. However, if specific places, like London are considered, the difference is less notable. For instance, rent Prices in Saint Helier are 21.04% lower than in London.

Tech Gross Value Added by digital tech cluster (2018) £000s

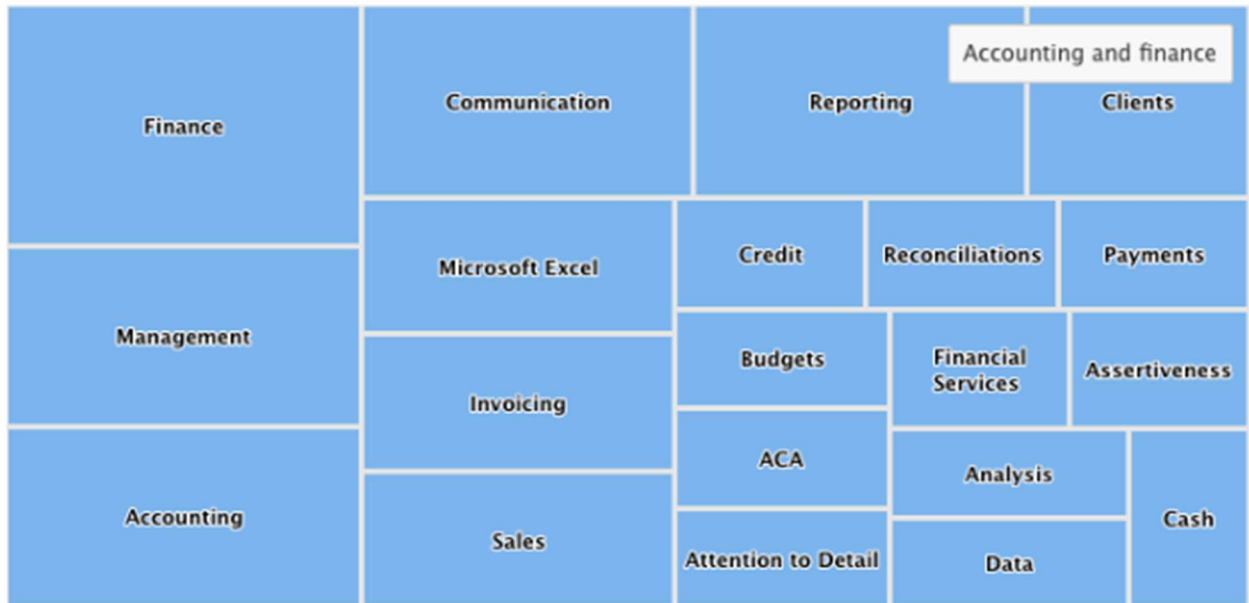


In the short term, this means that the tech sector in Jersey is not only good for the economy, but also for individuals. Data from online job advertisement provider, [Adzuna](#), shows that a significant number of firms recruiting digital tech workers in Jersey are Financial Services organisations. This links to the historical strength Jersey continues to exercise in Financial services, and builds on a regulatory environment that is conducive to the promotion of firm growth in these sectors.

The presence of larger financial firms in Jersey has clear benefits for the technology sector, as firms can offer reliable career routes, competitive salaries and benefits. These firms require experienced, digitally skilled professionals, to ensure IT systems and processes are effective and enable Jersey to remain competitive as an internal finance centre. However, it was perceived by interviewees that the unintended consequence of the attractiveness of these businesses, is that it decreases the digital talent pool available to start and scaleup organisations in tech.

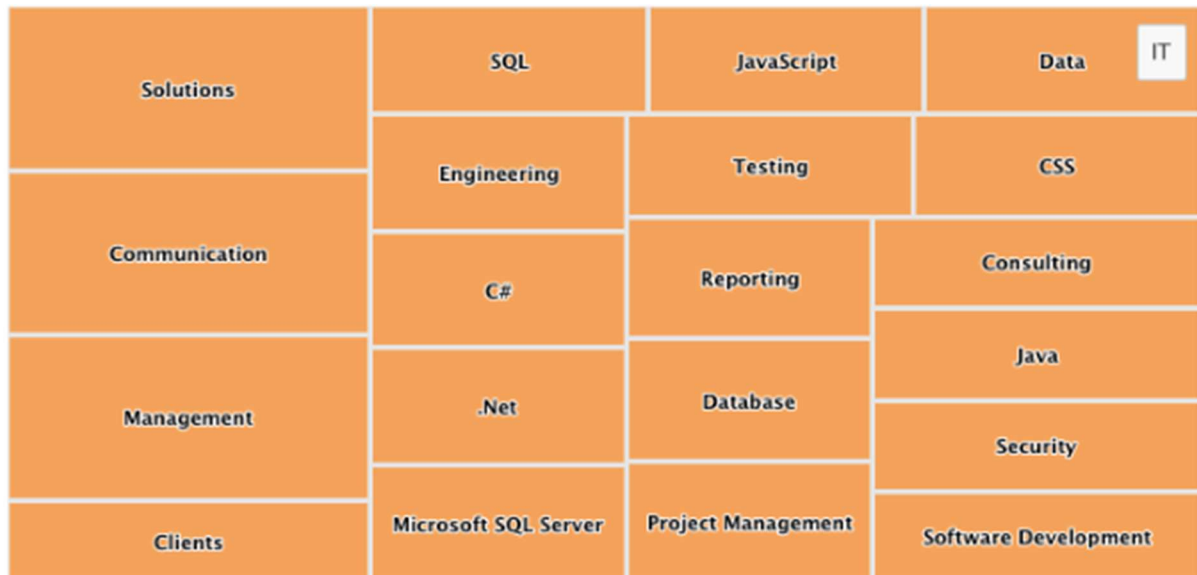
Looking at the skills demanded for roles in Financial Services, there remains a significant digital gap. Microsoft Excel is mentioned, alongside data and analysis, yet specific programming languages, software development and ways of working developed in a tech native environment tend to be missing from Financial Services roles, as seen in Figure 4 below.

Figure 4 Breakdown of skills mentioned in online job advertisements for roles in Accounting and Finance across the UK



Skills demanded by technology companies look very different to those of Financial services, as can be seen from Figure 5 below.

Figure 5 Breakdown of skills mentioned in online job advertisements for roles in IT and technology across the UK



Salaries have also grown at a rapid rate from 2016-2017, at 11%. Whilst the digital tech workforce in Jersey has grown by 5% over the same time period. The salary increase may indicate that demand for workers in digital tech has outstripped supply,

thereby calling into question education mechanisms, and the provision of people to work in these industries.

Productivity

Exploring productivity dynamics enables an understanding of relative competitiveness. To measure productivity in a commensurable manner, for this report, we use Gross Value Added (GVA) which is the measure of the value of goods and services produced in an area, industry or sector of an economy. In national accounts GVA is output minus intermediate consumption; it is a balancing item of the national accounts' production account. In the UK, it is particularly telling that higher productivity correlates to higher digital density, suggesting that there are benefits to people from companies clustering together – such as ability to network, and learn from one another. This may come about through different mechanisms:

1. Closer to suppliers or customers: this reduces transport costs but also increases competition. Firms are forced to reduce slack, cut costs, and organise production more efficiently to compete locally. In Jersey, this is less likely to be a defining factor, given the spatial proximity of firms operating on the island. However, take into account the closeness to UK firms, and we suspect that this may have a positive impact on agglomeration.
2. Matching talent to jobs: as a specialised pool of labour emerges, it is easier for employers to find digital tech workers that are better suited to available jobs, and those people whose skills are better suited to their role will be more productive. The specialisation of digital tech experts in Jersey is likely to have emerged from a number of anchor firms, in telecommunications and financial services, for instance. With a number of digital skills initiatives, not least those spearheaded by Digital Jersey, the matching of talent to labour – and labour needs discreetly and clearly defined, the appropriateness of talent for digital vacancies is likely to be heightened on the island.
3. Firms in hot spots are more likely to benefit from informal knowledge sharing: adopting new systems and ways of working can have a direct impact on firm productivity.

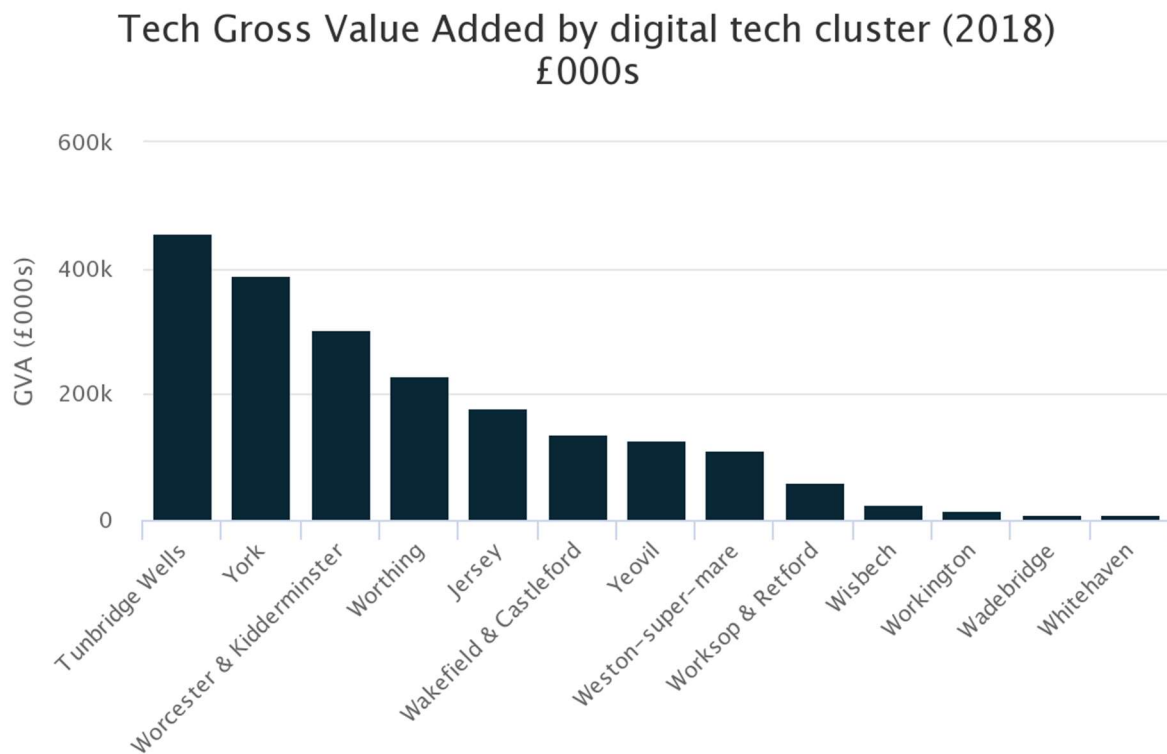
Digital tech [Gross Value Added \(GVA\)](#) in Jersey is just over £180 million. The integrated nature of the Digital Economy was highlighted by Nesta, an the UK's innovation foundation with a mission to help people and organisations bring great ideas to life. Businesses may not be described as digital but employ staff in a role

which would be considered as digital, and vice versa (Spilsbury, 2015). This report showed that in the UK, only 47% of those working in ICT-related jobs, in 2015, were employed in an ICT sector company, meaning that a large proportion of what may be considered to be the Digital Economy is not captured using analysis based on traditional industrial classifications.

Accordingly, we caveat that this represents the digital tech sector, which is not a measure of the digital economy, which would include include digital jobs in non-digital businesses and highly digitised business like e-gambling and e-commerce. Thus the true value of digital to the island’s economy is likely much greater than this.

When we look at productivity in Jersey compared to similarly sized UK regions (by employment in the digital tech sector), we see that the island is middle of the pack, compared with the likes of York, Wakefield and Worksop. This is not unexpected, given the business, and consumer populations of these towns and cities. Jersey should, however, look to capitalise on its unique heritage, industrial composition, talent pool and geographical location to rise up the rankings.

Figure 5 GVA in UK regions compared to Jersey for 2017 (£000s)



We take a deep dive into the *Telecoms* sub sector due to its significance as a dominant sector within the Jersey digital tech ecosystem – spearheaded, amongst

others, by [JT Group](#). We see that productivity per worker is approximately £100,000. This is broadly comparable with the *Trust and Company Administration sector* at £95,000 per-FTE; and significantly greater than the per-head GVA of *Agriculture (£36k per-FTE)* and *Tourism (£33k per-FTE)*. This is therefore an important, value creating component of the sector, and given the Telecoms industry in Jersey employs over 600 staff, a large proportion of the workforce.

Finally, it is suggested that the Telecoms sub sector is a major contributor to the island's 'digital exports'. Approaching 70% of Jersey Telecoms revenue is achieved off-island, firms such as [Sure](#) and [Airtel](#) are also internationally directed.

Daniel Rowles

CEO & Lead Trainer, Digital Jersey Academy

Please tell us a bit about the Digital Jersey Academy?

The Digital Jersey Academy is an exciting new centre of excellence for digital skills training in Jersey to aim to meet growing demand from the tech sector, and to get graduates 'job ready' with practical education.

The Academy will offer accredited qualifications and professional qualifications, including those from the Chartered Institute of Marketing and the Chartered Management Institute, as well as training in leadership and core business skills, such as raising funds, marketing campaigns and company structure.

The core programme, The Digital Leadership Programme, is a combination of rigorous academic study and hands-on work, and has had business involved in designing the syllabus. Students will work in intensive cohorts of 30 in a new custom built facility in the heart of Jersey's capital. There is a challenging and broad syllabus, and students have the ability to work directly on live projects. Leading the academy is a team of practitioners, including, entrepreneurs, academics and digital marketers.

Why is this good for business and good for Jersey?

The Digital Leadership Programme will have immediate and long term benefit for Jersey tech businesses. Businesses will have access to tech talent at the Academy, as second year students work on live projects with companies.

In the long term, the academy aims to up-skill the talent available in Jersey, having a positive impact across the Island. This is also fundamental to the economy in Jersey as the tech sector grows. Jersey is also the perfect place to test out this educational concept, as in many ways Jersey is a microcosm of the UK, if we get it right here, there is the potential to roll it out across the UK, or even worldwide.

Diversity and inclusion

Diversity is a contributing factor to talent supply challenges – many respondents commented on a lack of ethnic and gender diversity as having negative impacts on recruitment, innovation and creativity.

Employer demand for digital tech skills is increasing. Non-digital tech companies are becoming more reliant on digital tech workers, as tech pervades every business and new forms of work evolve.

However, despite the imperative to broaden and deepen the tech talent pool, the tech sector does not currently offer equal opportunities for all. There is a growing movement to promote diversity, with a number of initiatives aiming to address the gulf between men and women's employment in the sector. For example, Women in Tech Jersey, founded in 2017, aims to close the gender gap in the technical industry and introduce more skilled, professional women to the field. The Beaulieu Institute of Technology, is also leading the way with an ambitious digital vision, where it is compulsory to study IT. This has led to the proportion of people taking up IT subjects at A-level in Jersey being overwhelmingly female.

Collaboration and connectivity

Collaboration is the glue that sticks people and organisations together. It helps build connections based on shared objectives, views, or missions. While critical to the success of the tech ecosystem, it is difficult to pin down through official data.

Probing the dynamics of local meetups, alongside the connectivity of these groups across Jersey, help us develop a nuanced view of tech activity across the island and anticipate the buzz around emerging areas of interest.

Access to collaborators is a key strength in the digital tech industry in Jersey. 41% of respondents felt that accessing collaborators was not a challenge, while only 34% of respondents felt that it was.

Similarly, networking groups are popular in Jersey. Digital Jersey alone ran 190 events, with 3000 attendees in 2018. The most popular meetup in Jersey was [TEKEX](#), a networking group aimed at bringing like minded business people together in the digital arena, and with an aim of accelerating digital business in Jersey. [Tech Tribes](#) was also popular and as was [Channel Islands Alteryx User Group](#), a group focusing on software designed to make advanced analytics accessible to any data worker.

Respondents also reported attending networking groups off-island. This included groups in tech hubs, such as, London, Bristol, Brighton, Zurich and Seville. [Techstars](#), [Silicon Drinkabout](#), [.Net User Group](#), [Extreme365](#) were specifically mentioned, along with groups focusing on Blockchain and Change Management. This perhaps reflects the growing international nature of the tech ecosystem in Jersey.

A vibrant grassroots tech scene is essential to maintaining and sustaining growth. If informal industry meetups hint at economic undercurrents, then formal events bring existing economic activity to the surface. They are opportunities for tech communities to engage over shared interests. As such, they also strengthen these communities, since cultures are built, at least in part, on shared experiences.

Formal tech events are also bringing the tech community together in a public, structured way that validates these grassroots connections. Jersey has a well-developed network of formal events, but many of these events are skewed toward raising awareness of tech, rather than crystallising more fine grained connections that exist, for instance between developer communities on the island.

Stakeholders, regulation and policy

In Jersey, 24% of those surveyed felt that local government stakeholders understand the nature of the tech ecosystem.

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Access to government was felt to be a key strength in Jersey. However, 64% of respondents felt that local stakeholders did not understand the nature of the tech ecosystem, while only 24% felt that they did. Furthermore, no respondents felt that local stakeholders were very informed. Therefore, a key to Jersey's success as a tech hub could lie in bridging information gaps through cross-cutting government stakeholders and finding champions to promote and disseminate information about the sector.

Key ecosystem stakeholders

The people and organisations that make up the digital tech ecosystem in Jersey also provide its life-blood; the connections, innovation and serendipitous engagements that stem from interconnectivity, and help founders of digital tech companies operate in new, and more effective ways.

The main organisations which were considered important for the digital sector in Jersey were: Digital Jersey, Jersey Finance, Jersey Financial Services Commission and the Chamber of Commerce. These organisations were felt by respondents to add value as they provided regulatory support for the tech community, created

networking opportunities and raised awareness of the tech sector. The organisations cited tended to be government bodies or closely linked with government, however, entrepreneurs were also felt to be able to meaningfully contribute to informing on relevant regulation and raising awareness of the local tech sector.

Start-Up Support – includes business plan support and assistance obtaining working permissions and housing rights.

Digital Jersey Xchange and Open Data Platform – with a focus on digital health

Digital Jersey HUB – doubling it's co-working space capacity and creating a dedicated events space. The Digital Hub aims to create a soft landing for digital tech businesses.

Rachel Wijsmuller

Business Development Manager – IoT, Digital Jersey Xchange

Please tell us a bit about the Digital Jersey Xchange and Open Data Platform

The Digital Jersey Xchange (DJX) – is a dedicated technology space and research centre that provides a focal point for our growing IoT community and a shop window for local businesses looking to innovate through the use of IoT technologies. DJX is also home to academics undertaking research on IoT themes in Jersey, as well as companies using our best-in-class IoT infrastructure to trial their prototype technology in a manageable, yet representative environment. The data platform is designed to enable people to communicate their work to a wide audience, and to foster collaboration and sharing.

How will this initiative support the islands growing tech sector?

Support for Open Data is a great sign that a closed-door culture is giving way to one where ideas are welcome, and data-driven decision-making is the norm. A lot of the work we do now is about the art of the possible, creating prototypes or skeleton projects (all utilising the data platform) which can then be taken forward by the

market. DJX is an environment designed to inspire a wave of young digital professionals who will enable Jersey to meet current and future expectations of a fully digital jurisdiction.

Regulation and legislation

Licensing and migration legislation were felt to negatively affect business, especially in terms of talent, making it very difficult for businesses to recruit off island.

Regulation was also felt to be too slow and bureaucratic.

However, regulation was also felt to be a key area which could be improved upon and which could have significant positive impacts. The positive impact of legislation was that it was seen to drive change and to support the sector. Furthermore, changes in legislation were seen as potential opportunities for tech businesses, which could be utilized to implement and improve systems.

Regulation in Jersey was felt to be a key area which could be utilised to Jersey's tech sectors advantage over other jurisdictions. Many respondents, described Jersey's small size, and access to government as setting Jersey apart, and could be used for the tech sector's advantage. Furthermore, regulators in Jersey were felt to be approachable and open to the needs of the tech sector.

Sandbox Jersey – Digital Jersey's unique testbed proposition, the Sandbox Jersey initiative is designed to position the Island as the location of choice for organisations looking to test concepts, products and services prior to launch, in a representative and safe environment, without high costs by supportive legal, governmental and regulatory frameworks. The initiative aims to utilise Jersey's components as a large nation in a geographically small island. Many respondents commented on the potential of Jersey as a sandbox, demonstrating how popular this initiative is with local businesses who see the sandbox as a lever to raise awareness of Jersey's unique offering for global businesses and to create a thriving export economy. There are three main strands to the sandbox: Fintech Sandbox, IoT Sandbox and Digital Health Sandbox.

Digital infrastructure – 2018 saw the rollout of Jersey's full fibre network to 40,000 homes and premises by JT. This makes Jersey, the second jurisdiction in the world

to have a full fibre network. This is seen by respondents as a key advantage to business, allowing for a competitive edge over worldwide competitors.

Initial Coin Offerings (ICOs) – In July 2018, the Jersey government and Jersey Financial Services Commission published statements and guidance on ICOs. ICOs are a new method of raising capital through blockchain technology, and is often compared to an IPO, however, instead of raising debt or equity, the issuers/operator issues digital tokens in exchange for consideration in the form of fiat currency, crypto currency or both. This is a good example of how regulators are working with the local businesses.

Cryptocurrency Exchange – Digital Jersey signed a Memorandum of Understanding with cryptocurrency exchange Binance in June 2018. The aim of the partnership is to develop a compliance base and cryptocurrency exchange on the island, and to promote the blockchain industry in Jersey. Jersey is now attracting new VR cryptocurrency exchanges, setting up on the island.

Jersey Private Funds – a welcome simplification to Jersey's funds regime – a new investment fund to invest in tech startups was set up in 2017. It now takes only 48 hours to set up a fund. Since the fund was set up 150 funds have already launched. This demonstrates how the Jersey government and JSFC are creating a positive environment for businesses. One of these funds is the Softbank Vision fund, the world's largest ever investment fund – worth \$93 billion and backed by tech firm Apple.

Jersey Holding Companies for IPOs – due to Jersey government's flexibility on company law combined with Jersey's strong regulatory reputation there has been considerable growth in the number of overseas businesses choosing a Jersey company as a holding company to list on London, Hong Kong and New York's key exchanges.

Global Financial Innovation Network – Jersey is a member of the Global Financial Innovation Network – an initiative designed to create a 'global sandbox' – the network will seek to provide a more efficient way for innovative firms to interact with regulators, helping them navigate between countries as they look to scale new ideas.

Ceri Riddett

HR Director, C5 Alliance

Please tell us a bit about C5 alliance?

C5 Alliance started life as an IT consulting firm 20 years ago. Since then, the business has tripled in size and has transitioned from a small consultancy business to providing cutting-edge IT solutions and technologies throughout the business lifecycle of our clients. With over 200 experts and partnerships with our best of breed vendors, such as Microsoft and HPE, we are a trusted provider of technology solutions in the Channel Islands.

In 2018 the business was acquired by BDO in Jersey. The acquisition provides us with the comprehensive skillset and end-to-end product lifecycle required to meet the needs of sophisticated clients competing in an increasingly complex business environment dominated by fast-paced technological change. C5 and BDO in Jersey now provide a unified firm spanning consultancy, strategy, digital technology and managed services

Please tell us why Jersey has been beneficial for your business?

Jersey has been a fantastic place for C5 Alliance to start and grow. We are fortunate to have a strong financial sector and we have developed our capabilities to focus on supporting this industry, which includes many global banks and financial institutions. Jersey is the ideal testbed for fintech solutions, where our small, well contained but well-equipped environment allows us to try new things and develop them for larger markets.

We also have strong human capital with highly qualified homegrown talent. We continue to invest in this talent with training and development in order to create innovative and pioneering technology solutions for our clients, demonstrated in our achievement in obtaining nine gold Microsoft competencies, placing us in the top 1% of partners in the UK.

Jersey also has excellent technical, physical infrastructure that supports our robust data centre. This allows us to provide our clients with assurance that their data is safe and well-regulated meeting compliance, governance and security standards.

Digital Jersey's Sandbox Jersey and Jersey Skills Academy are vital for Jersey to continue growing and will continue to support us in driving innovation and investing in our people.

Recommendations

Data collection, measurement and mapping

- Establish a robust, year on year survey of firms in Jersey, including digital tech businesses to replicate that conducted by the Office for National Statistics in the UK through the Interdepartmental Business Register.
- Establish year on year surveys of the labour force in Jersey, including an Employer Skills Survey and Employer Perspectives Survey.

Growing the digital tech sector in Jersey

- **Go global** – capitalise on Jersey's unique connectivity to leverage access into international markets.
- **Train future tech entrepreneurs and employees** – connect into talent growth platforms like the Digital Jersey Academy, and online course providers to stimulate the next generation of digital tech entrepreneurs and employees. Training homegrown talent means that Jersey will be well positioned for future growth, and realisation of the sector's potential.
- **Connect to succeed** – Jersey is a compact ecosystem, connect with founders and CEOs in Jersey for face to face meetings or meetups and use digital networks to join prospective collaborators outside the island.
- **Forge connections with other tech hubs** – entrepreneurs, support organisations and government should look to connect with the burgeoning UK tech hubs identified in the Tech Nation Report 2018, to leverage shared strengths and address jointly experienced challenges.
- **Hire talent creatively** – Jersey, given its nature, has a small labour pool. Employers should therefore look to make the most of non-Jersey talent

by employing flexible working to ensure that growth of the digital tech sector can continue.

Methodology

Digital Jersey and Tech Nation survey – the Tech Nation and Digital Jersey survey gives us a unique insight into the opinions, and hopes, of the individuals who sit at the heart of the tech ecosystem in Jersey.

The survey ran from the 4th October until the 16th October, and 80 individuals responded, including founders and CEOs of tech businesses, employees in the tech sector and the support organisations who work to serve this fast growing and important industry.

Of the 80 respondents, 73% were above 35, while 23% were 25 – 34 year olds. In terms of gender, the majority of respondents were male, accounting for 77% of respondents, while only 16% were female. Lastly, over half of respondents were born in Jersey, at 58%, followed by 30% from the UK and 8% from the EU.

Adzuna – The Adzuna API was used to collect data on open job ads in the UK. Because the Adzuna API had no classification system to allow the identification of digital tech roles and non-digital skills, we used Python {if/else} statements to categorise ads based on the information within their descriptions. As a result, we were able to classify the ads into three different skill identifiers – digital skills, digitally-enabled skills and non-digital skills – and obtain their average salary distribution and difference.

LinkedIn – We use aggregated and anonymised LinkedIn data to uncover new information on skills supply. LinkedIn has over 23 million members in the UK, just under 10% (2.2 million) of these members have tech skills. For Jersey, we use data which describes the skill profiles and sector distribution of these members, based on the information that members enter on their profiles. Data points in this report are aggregated to ensure that they do not disclose any information on individual members.