DIGITAL JERSEY

& EXETER
UNIVERSITY OF

DIGITAL SKILLS STRATEGY

Industry & Government Working
Towards a Prosperous Future.
2018 - 2023

CONTENTS

PREFACE

Employers in Jersey are struggling to recruit suitably skilled staff with digital skills. Many local employers and students are frustrated by the island's digital skills training pathway. Anecdotal evidence suggests that the training provisions are more limited than in the UK and elsewhere, leading many of the island's brightest students to pursue further and higher education overseas.

These concerns were reflected in the Government's 2017 Skills Strategy which found widespread disappointment over the level of digital skills among the island's workforce. These recruitment difficulties negatively impact the island's businesses, putting barriers in the way of the development of the digital sector, which the island's government has prioritised as a pillar of the economy.

As the island looks to the future growth of its digital sector, experience suggests that there is a need for a coordinated approach to spur innovation and skills, supporting the economy's transition into sectors where Jersey is considered to have a comparative advantage, namely: FinTech, RegTech and the Internet of Things (IoT).

With this in mind, Digital Jersey sought an impartial consultant with proven technical competencies and previous experience of education strategy, to undertake an assessment of the current digital skills training landscape and to identify the specific provisions needed in both compulsory and higher education for the progression of a digital education pathway.

The research team at the Marchmont Observatory, based at the University of Exeter, has a successful track record in the fields of labour market analysis, monitoring and strategy development. They work closely with policymakers to build a robust evidence base and to help ensure effective policy delivery in skills, employment and economic development. Recently the Marchmont Observatory has been involved in the creation of the Jersey Government's 2017 Skills Strategy, as well as digital skills strategies in the UK for local government and Local Enterprise Partnerships.

DR ANDREW DEAN
SENIOR IMPACT AND PARTNERSHIP DEVELOPMENT MANAGER

Andrew is a researcher, writer and project manager and a specialist in the topics of employment, skills and the labour market. His main interests include: vocational education and training; regional and local labour market monitoring; the role of social partners in employment and skills policy; and, linking policy with practice.

HILARY STEVENS
IMPACT AND PARTNERSHIP DEVELOPMENT MANAGER

Hilary Stevens is a senior researcher within Marchmont specialising in policy orientated research and programme evaluation within the fields of skills, learning and employment. Her principal research interests include economic and labour market monitoring and the impact of universities as anchor institutions for economic growth.

BEN NEILD
SENIOR IMPACT AND PARTNERSHIP DEVELOPMENT MANAGER

Ben leads on Higher Education skills strategies and related activities. This includes labour market monitoring for regional agencies with strategy development, the targeting of funds and evaluation of skills and employment-related projects.

FAITH GRAHAM
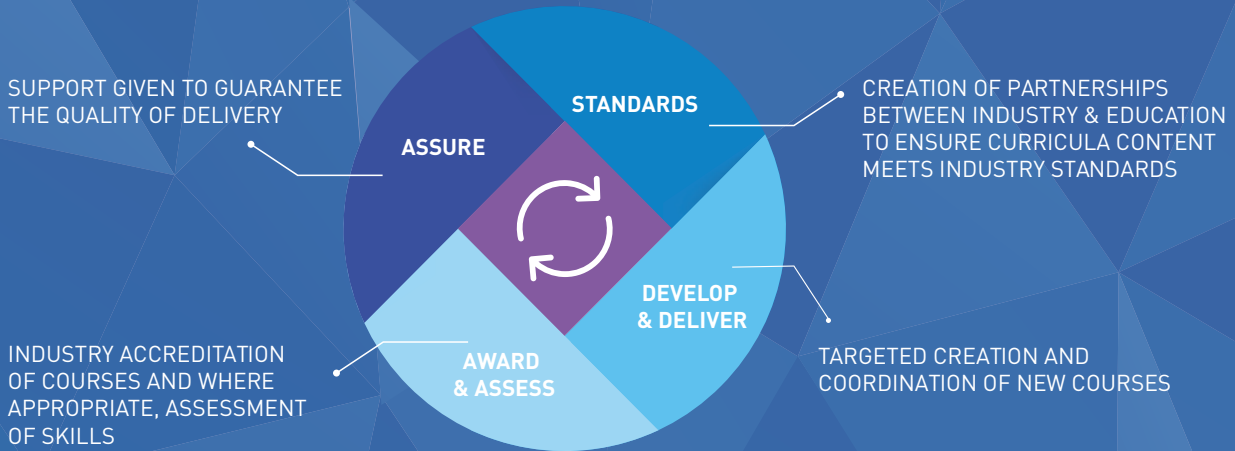#### CONSULTANT AND DIRECTOR OF REDBOX RESEARCH

Faith has more than 20 years' experience in skills and labour market research and can bring a wealth of knowledge and expertise to the brief. She has a wide range of clients across England and Wales including the Welsh Government; Government Offices; Local Authorities; Local Enterprise Partnerships; Further Education; and Skills Partnerships

OVERVIEW OF RECOMMENDATIONS

DIGITAL SKILLS PARTNERSHIP

The Digital Skills Partnership is designed to bring together industry and education, to make our island's workforce future proof. Providing clarity on employer needs and guidance to curricula design. The partnership will work together with Skills Jersey, the island's central link between industry and education.

STANDARDS

ASSURE

DEVELOP & DELIVER

AWARD & ASSESS

SUPPORT GIVEN TO GUARANTEE THE QUALITY OF DELIVERY

CREATION OF PARTNERSHIPS BETWEEN INDUSTRY & EDUCATION TO ENSURE CURRICULA CONTENT MEETS INDUSTRY STANDARDS

INDUSTRY ACCREDITATION OF COURSES AND WHERE APPROPRIATE, ASSESSMENT OF SKILLS

TARGETED CREATION AND COORDINATION OF NEW COURSES

DIGITAL ENTERPRISE ACADEMY

A specialist and recognised campus for digital skills.

Changing the face of post-secondary education in Jersey.

Delivering industry led training.

A collaborative partnership between industry and Skills Jersey to give leadership and direction to digital education and training.

LABOUR MARKET INSIGHTS

Continually monitoring the workforce skills profile and pipeline of skills from compulsory education.

Working to understand industry's evolving skills needs.

Monitoring graduate retention from on and off-island.

THE INFRASTRUCTURE

Industry Voice & Leadership

Networking & Collaboration

Co-located with Learners & Educators

Digital Enterprise HUB

The space to Grow

Accommodations

EDUCATION FOUNDATION

To secure the future of the Digital Enterprise Academy.

SKILLS ESCALATOR

Raise the profile of on-island training pathways to a career in digital tech.

Targeted intervention to create post-secondary training opportunities with all providers.

Give oversight, quality assurance and industry accreditation to skills initiatives.

Overseen by the Digital Skills Partnership, led by Digital Jersey.

INDUSTRY PROMOTION & ENGAGEMENT

Student: Working to increase the pool of talent going from education into industry.

Educators: To bridge the gap between what students are being taught, and the needs of industry.

Influencers: To engage students' key influencers, such as parents/guardians to promote the digital sector as a credible and desirable career choice.

Jersey Nationals Living Abroad: Creating greater connectivity between students studying relevant qualifications off-island and potential employers in Jersey.
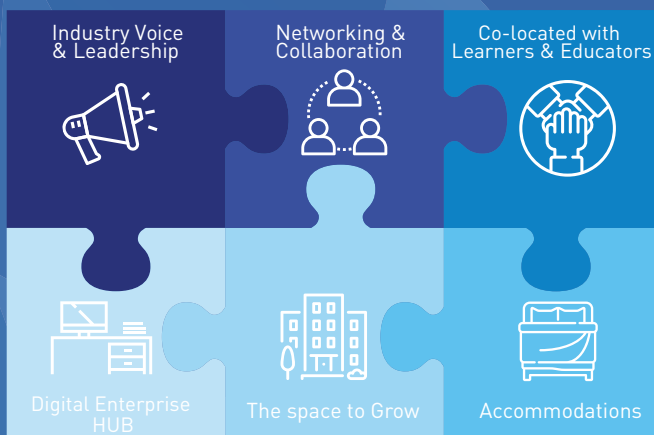
WHY JERSEY NEEDS A DIGITAL ENTERPRISE ACADEMY

The digital sector, more than others, thrives in collaborative environments where entrepreneurs can share skills, work together and inspire each other to reach new potential. This is why activity in the sector tends to concentrate in clusters.

Clusters form in two main ways:

• Around large companies when they relocate
• To take advantage of local talent

Having this pool of talent working together and accelerating each other is the reason many collaborative spaces have become training centres, such as the General Assembly and the Digital Jersey Hub. Many universities have similarly recognised the inextricable link between graduate talent and the needs of industry; opening accelerators and science parks to foster these relationships.

The intangible benefit of collaboration has led to the development of university science parks in leading tech hubs from Massachusetts and San Francisco, to Cambridge and emerging clusters, Manchester and Exeter. These centres operate within their economies, building on strengths and addressing weaknesses. They play an important role in utilising and further boosting the local skills base by creating opportunities to work in companies that are using these skills to greatest effect in an innovative environment. These locations offer a range of office and collaborative space to companies, which often double up as an innovation centre. At the heart of these centres are communal spaces that allow for frequent formal and informal interaction, in an environment where serendipitous innovation occurs. This demonstrates that the traditional approach of education and industry working in siloed environments no longer applies to the emerging digital economy.

This view was echoed in interviews with local industry leaders. When employers with bases elsewhere in the world talked about the advantages of their other locations, they noted the importance of intangible features, like the 'buzz' of a university town and the 'culture' that surrounds it.

The evidence in this strategy points to the need for a coordinated approach to spurring innovation and skills in Jersey. Research found that what employers need 'right now' is not the same as what they will need in the medium to longer term, with broad industry recognition of a growing skills need.

The research suggests that as the pace of digitalization continues, the need for ongoing, self-paced learning will be essential. Closer industry-academic connectivity, both physically and virtually will be crucial if the island's workforce is to adapt to a changing employment landscape. Specifically, the digitalizing economy widens the gap between those who actively seek out learning, with those who imagine it to be imparted upon them. For this reason, recognition is needed by employers and employees of the importance of self-paced lifelong learning.

To this end, a Digital Enterprise Academy is proposed as a focal point for industry and academia to work together, share resources, communicate, and ultimately to foster the island's next generation of industry skills. The Academy should spearhead the view that CPD is essential, and that self-paced learning must be a part of that; building on the delivery of pre-existing courses on-island, raising their profile and complementing their standing. This can be achieved by providing higher level training opportunities that branch into industry specialisms, such as digital marketing, coding and data analytics. From the perspective of local employers, a Digital Enterprise Academy would do much to raise the profile of the sector in Jersey and to create a 'buzz' about its opportunities for growth.

The goal of the centre itself should mirror that of successful science parks elsewhere, leveraging the local ecosystem of start-ups, investors, accelerators and academic institutions to create a power charged digital eco-system. Like other industry-academic partnerships, the centre should include student accommodation, serviced office space, training facilities and start-up facilities.

For Jersey's digital sector to stand as a pillar of the island's economy, significant intervention is needed. This intervention will require investment in a field where technical skills, R&D incentives and collaborative environments are key determinants to success.

EVIDENCE
SKILLS PIPELINE

Following a comprehensive information gathering exercise that combined quantitative and qualitative research, our supply-side analysis concluded that both the number of enrolees and the provision of courses at all levels is insufficient to meet the island's economic and social needs. Specifically:

• The number and type of 'digital' courses is inadequate and inconsistent at key stage 4
• There are barely sufficient training options in key stage 5
• Opportunities to pursue retraining and upskilling in 'digital' in tertiary and higher-education is sparse

The findings from the research also evidenced a need to upskill educators in 'IT', with a particular emphasis on embedding IT in all subjects via project-based learning, at all ages. These efforts should extend to initiatives that empower the learner, giving them the skills they need to help their peers and teachers upskill in 'digital'. Initiatives of this type already exist (Digital Ambassadors/Digital Champions) and would serve a valuable purpose in Jersey. The research also points to a need for up-to-date career information on IT jobs and the wider importance of digital skills in the workplace, communicating this message to learners and influencers alike. Specifically, a focus is needed to improve the gender balance on 'digital' courses; particularly as many professions followed by females (marketing, PR etc.) are becoming increasingly intertwined with technical skills. Ultimately, these technical skills will assist in narrowing the gender pay gap that is prevalent in the industry.

The following section details the 2017 intake of students studying 'Digital' qualifications at all states funded (and part-funded schools), along with the specific courses available at each level.
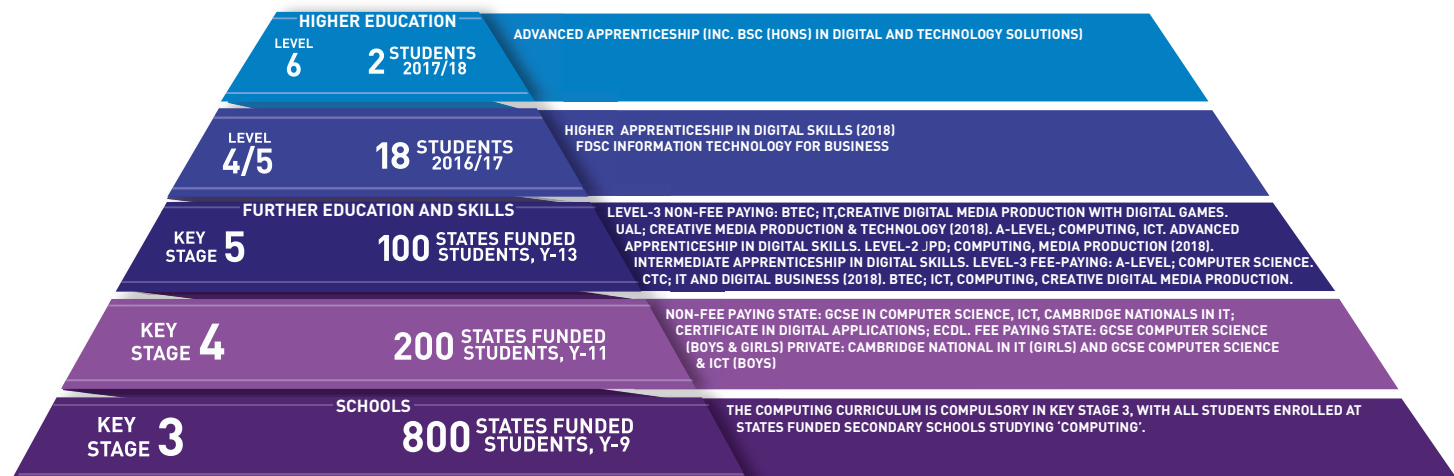
KEY STAGE 4

Digital qualifications entered at Key Stage 4 in Jersey; 2015 to 2017 (Excluding De La Salle College & Beaulieu Convent School)	ENTRIES	% A*-C
GCSE In ICT	251	41.0
Cambridge GCSE In ICT	215	80.0
GCSE Computing	98	83.7
Level 1/2 Cert. Digital Applications	86	81.4
BTEC ICT	62	90.3
BTEC IT	27	96.3
Functional Skills (FSKL) In ICT	30	40.0
ECDL (International Computer Driving Licence)	45	100.0
Total	814	

Private Schools

Beaulieu Convent School

Beaulieu is the only school where 'Computing' is compulsory for GCSE. Every student now completes a Cambridge National Qualification in IT, worth a full GCSE. The school entered 87 pupils for the GCSE in IT in 2016/17.

De La Salle College

GCSE Information and Communication Technology is compulsory for boys in their lower ability stream. GCSE Computer Science is offered as an optional subject to both higher and lower ability groups.

KEY STAGE 5

At least 114, IT related examinations were taken by students at Jersey's state funded schools over the last 3 years. These were mostly in ICT or IT and were predominately at full A level (A2). Computing or Computer Science was far less frequently studied. Attainment varies significantly by qualifications and subject. For example, all BTEC IT entries resulted in a pass and 71% of A Level Computer Science entries achieved good grades (at A* to C).

Digital qualifications entered in Jersey (Further Education); 2015 to 2017	Entries	% A*-C
A2 ICT	54	51.9
A2 Computing	<10	X
A2 Computer Science	14	71.4
AS ICT	10	30.0
AS Computing	<10	X
AS Computer Science	<10	11.1
BTEC IT	36	100.0
Total	114 (Min)	

Over the past 12 month's a proactive approach has been taken by some secondary schools aimed at increasing the take-up of digital qualifications. For instance, Beaulieu recently launched the BIT (Beaulieu Institute of Technology) which will offer several vocational qualifications in digital subjects, and open to students from all genders. Meanwhile, Victoria College has implemented a Digital Ambassador and Digital Champion programme designed to give students the skills they need to help their peers and teachers in the classroom.

HIGHER EDUCATION

The IT for Business foundation programme has been running for 5 years and usually attracts around 10 students a year (all local) of whom, most progress from Level 3 provision at Highlands College.

Higher Education in Digital qualifications	2016	2017
IT For Business (UCJ/Plymouth Uni)	10	10
BSC (Hons) In Digital And Technology Solutions (Uni Of Exeter)	-	1
Undergraduates/Postgraduates Studying IT-Related Subjects UK (HESA)	42	-

OFF-ISLAND ENROLMENT

Some students choose to access higher education off-island. Data from the Higher Education Statistics Agency (HESA) obtained by States of Jersey, show that 42 Jersey domiciled students were studying IT-related subjects at undergraduate or postgraduate level in the UK during 2015/16 (latest data available). However, past trends indicate that just over half of these Jersey students will return to work in Jersey post-graduation.

Employer Observations

None of the businesses interviewed by the research team had used Highlands College or AXL for their staff training needs. However, several had sourced their talent from courses run by Digital Jersey, while one had worked with Skills Jersey and the Trackers team to develop a tailored apprenticeship.

Opportunities were raised to work closely with University College Jersey, NobleProg, Target Internet and Jersey International Business School to co-launch digital courses, tailored to the needs of the local industry.

TRAINING PROVIDER	COURSES
Highlands College	• Introductory classes such as iPad for beginners • IT skills for businesses: excel problem solving, website design, logo design and branding, Quickbooks and the book-keeping package • Online Pitman office skills diploma
Axl Training (End-User IT Training)	• Microsoft training courses (with Excel being the most popular) • Accredited courses in IT and computing (for example, IT skills for jobseekers) • Microsoft Office specialist Accreditation • Level 1-3 qualifications in Microsoft Office expert
Digital Jersey	• Coding Course • Digital Marketing • Data Analytics (Nobleprog)

INDUSTRY DEMAND

The following findings represent the outcome of extensive research with digital employers in Jersey:

Without exception, all employers interviewed, complained of their difficulties in recruiting staff. The recruitment of IT staff with 3-5 years post degree experience (mid-range) was highlighted as being particularly challenging. For this reason, employers were willing to employ applicants with skills below their needs, instead providing job-specific training. However, this suggests that businesses are operating with skills levels below optimum, which has wider implications on their productivity.

These recruitment pressures were attributed to a strong tendency for digital businesses to expand abroad or to relocate once scaled to about 20 staff. This tendency to expand internationally raises concerns that employers are shifting their more highly-skilled and technically focused IT roles off-island, indicating a need to drive up digital skills utilisation of on-island staff.

Specifically, in regard to training, employers had a desire to use tailored rather than traditional qualifications, with particular interest in novel approaches like ECOLE 42 and WozU. Employers also showed a strong interest in the use of internships and undergraduate/post graduate placements to meet their recruitment needs.

However, of equal importance were employers' emphasis on raising young peoples' awareness, interest and attainment of digital studies. To achieve this, several interviewees urged action to raise the profile of the digital sector and the types of career opportunities available locally, supporting this with dedicated marketing material. Another common theme was a focus on maintaining employers' connectivity with islanders that pursue higher-education off-island, and to support girls/women in IT.

The findings from the demand-side analysis suggests a need for collaboration between industry stakeholders and education if Government is to realise its ambitions of growing the digital sector in Jersey and develop the Island as a global hub for computing and digital technology.

In conclusion, employers were enthusiastic to be kept informed about future digital skills initiatives, how they will function and how they can benefit.

SKILLS COMMONLY REQUIRED

CREATIVE DIGITAL
ARTS GRADUATES

IT / TECH
STEM GRADUATES

PRODUCT SKILLS
Microsoft, Navision, AS400.

TECHNICAL SKILLS
Software developers, web developers, digital marketers, web designers, junior developers and programmers and AI skills, graphic designers, business analysts, statisticians.

SOFT SKILLS
Problem solving, customer service skills. Clients expect sophisticated support services and the so called 'soft' skills are vital.

REASONS FOR RECRUITMENT ISSUES

SCALE
The most commonly identified factor behind the recruitment difficulties that employers face is the size of the Jersey labour market.

COMPETITION
Competition for staff is fierce. This has the effect of putting pressure on wages and several employers commented that staff costs are high relative to the UK so that employers pay more for less talent.

CAREER ADVICE
It was felt that more should be done to help promote tech careers and digital options as an alternative destination.

THE APPLICANT
The gap between the skills employers need and the knowledge and skills that graduates possess. A majority of employers stressed the need for candidates to have the right attitude and aptitude, but said that many lacked the 'spark'.

HOW INDUSTRY IS RESPONDING

NEAR-SHORE JOBS OFF-ISLAND

The businesses that had off-shored or were considering relocation were ones that had grown to around 20 employees. Jersey is losing some of its high growth digital firms.

DIGITAL JERSEY COURSES

It was interesting to note that the coding courses run by Digital Jersey were proving to be a successful recruitment tool for local employers.

REDUCE JOB SPECIFICATION

To reduce the job specification to a more junior or less experienced level and then train up candidates. This suggests that businesses are operating with a skills level below the optimum.

ONLINE TRAINING

On the whole, training was done in-house and on the job, supplemented by sending staff to the UK to train. One online training provider identified more than once was Firebrand.

CREATING TRAINING OPPORTUNITIES

Some companies offered STEM apprenticeships and graduate training programmes, specifically, JT Global is Jersey's largest digital sector employer, and runs a successful 'Graduate Programme' and 'Apprentice Scheme'.

Similarly, several other employers interviewed are exploring ways of developing in-house training.

CASE STUDY: LOCAL TECHNOLOGY COMPANY

A large local technology and professional services company is looking to consolidate its European development operations into a single dev centre with upwards of 80 staff. In spite of being a Jersey business, with a significant local footprint, the business will not consider Jersey because;

"Our key needs are available talent in volume today and access to graduate talent and university R&D capability. With the best will in the world we will not be able to consider Jersey at this time as an appropriate location for our European centre. The reality is that we are looking at locations with significant talent pools and established university programmes."
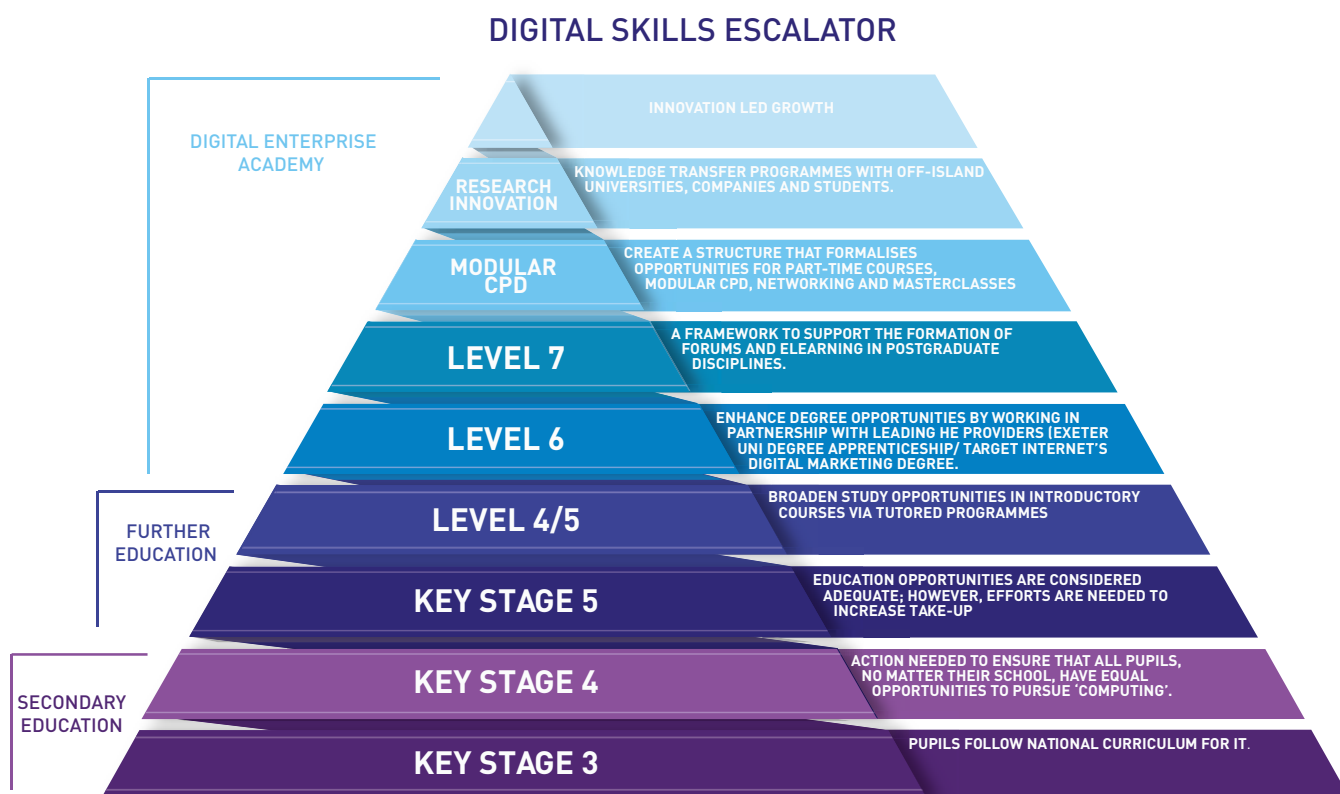
RECOMMENDATIONS

Outlined below, based on our research are the recommended actions that would address some of the challenges faced by employers and educators. The recommended actions fall under four main themes, a digital skills escalator, a Digital Enterprise Academy, labour market insights and, industry promotion and engagement.

DIGITAL SKILLS ESCALATOR AND PARTNERSHIP

If the digital skills required for the future are to be met, evidence shows intervention will be needed in both schools and in the provision of post-secondary opportunities. The Digital Skills Escalator has been created to ensure that there is the opportunity to follow a training pathway for a career in digital. This maps the partnership between industry and education professionals, with clear progression paths for those wishing to develop.

The Digital Skills Escalator is the development of one unified strategy which branches across secondary, further and higher education, and across several education bodies in the island, the Education Department (Skills Jersey) and the newly proposed Digital Enterprise Academy.

Following the research recommendation, it is proposed that the development of secondary level digital education is enabled by the Education Department. The Digital Skills Academy will primarily focus on Level 6+ training, ongoing professional development, workforce re-training and knowledge transfer initiatives.

DIGITAL SKILLS ESCALATOR

|		
DIGITAL ENTERPRISE ACADEMY	INNOVATION LED GROWTH	
	RESEARCH INNOVATION	KNOWLEDGE TRANSFER PROGRAMMES WITH OFF-ISLAND UNIVERSITIES, COMPANIES AND STUDENTS.
	MODULAR CPD	CREATE A STRUCTURE THAT FORMALISES OPPORTUNITIES FOR PART-TIME COURSES, MODULAR CPD, NETWORKING AND MASTERCLASSES
	LEVEL 7	A FRAMEWORK TO SUPPORT THE FORMATION OF FORUMS AND ELEARNING IN POSTGRADUATE DISCIPLINES.
	LEVEL 6	ENHANCE DEGREE OPPORTUNITIES BY WORKING IN PARTNERSHIP WITH LEADING HE PROVIDERS (EXETER UNI DEGREE APPRENTICESHIP/ TARGET INTERNET'S DIGITAL MARKETING DEGREE.
FURTHER EDUCATION	**LEVEL 4/5**	BROADEN STUDY OPPORTUNITIES IN INTRODUCTORY COURSES VIA TUTORED PROGRAMMES
	KEY STAGE 5	EDUCATION OPPORTUNITIES ARE CONSIDERED ADEQUATE; HOWEVER, EFFORTS ARE NEEDED TO INCREASE TAKE-UP
SECONDARY EDUCATION	**KEY STAGE 4**	ACTION NEEDED TO ENSURE THAT ALL PUPILS, NO MATTER THEIR SCHOOL, HAVE EQUAL OPPORTUNITIES TO PURSUE 'COMPUTING'.
	KEY STAGE 3	PUPILS FOLLOW NATIONAL CURRICULUM FOR IT.

CASE STUDY: EXETER DATA ANALYTICS ESCALATOR

The Data Analytics Skills Escalator has been developed in conjunction with all major public and private stakeholders in the Exeter Area. The scheme is designed to provide the digital skills needed by organisations, and a progression for local people. The Escalator has been successful at uniting siloed activity and drawing together partners, like The Met Office and Exeter City Futures towards a single goal.

The University of Exeter proposes the implementation of a Digital Skills Partnership. This requires working with multiple bodies involved in ensuring the future of digital education, to ensure an appropriate and direct pathway to qualifications needed. The Digital Skills Partnership, made up of key stakeholders from education and industry, would be charged with bridging the communications gap between employers and educators.

CASE STUDY: JERSEY CONSTRUCTION COUNCIL (JECC)

The Training & Education sub committee of the JeCC includes representation from 'Back to Work', Highlands College, industry and Skills Jersey.

The committee has played an active role in improving industry-education connectivity, acting as a forum for the co-creation, curriculum, and assessment of 'construction' training.

STANDARDS

ASSURE

DEVELOP & DELIVER

AWARD & ASSESS
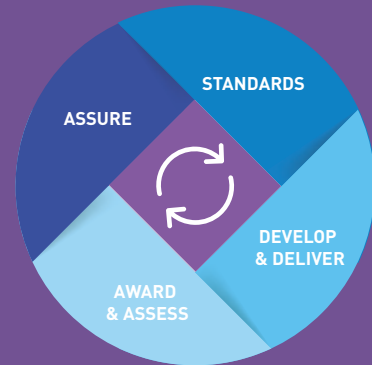
SECONDARY AND FURTHER EDUCATION

According to States of Jersey statistics, currently just over 400 young people are working towards computing and ICT related qualifications within Key Stage 4 in States' schools. Computing currently is not a compulsory subject at this level and overall, only around one-fifth of pupils elect to take it with the percentage varying considerably by school; and within some schools by year group.

The Education Department (Skills Jersey) is best positioned to lead the recommendations to increase the level of training outlined below, with support from Digital Jersey:

- Inconsistent training opportunities at GCSE level between schools has been highlighted, with some schools in Jersey offering more training opportunities than others. The pooling of teaching resources and use of online learning could address these issues and create fair opportunities for all students.

- Schools would welcome a greater level of collaboration across educational institutions and, in particular, pooling resources and sharing good practice. This was highlighted as the island struggles to recruit specialist IT teachers, and within other subjects, teachers vary significantly in their confidence in embedding technology in their teaching.

- The efforts to improve the provision of relevant and current education, needs to be underpinned by adequate hardware, and a reliable and fast internet connection to create the right physical environment for learning. A proposal to upgrade existing equipment in schools should be scoped to be included in the 2020 round of the Medium Term Financial Plan.

- The use of technology within schools should be used to overcome skills deficiencies experienced within individual schools. Online learning courses would allow pupils to follow customised programmes of digital learning that reflect their strengths and interests.

- The Education Department should recognise 'Computing' as a core science at GCSE level, alongside physics, chemistry, biology and double science. This would allow learners to elect to study Computer Science as one of their core subjects, and equalise the qualification's standing in the eyes of the educators and learners. The UK included 'Computing' as an optional subject within the compulsory sciences in 2014.

CASE STUDY: NORTHERN IRELAND ENTITLEMENT FRAMEWORK

The introduction of the `Entitlement Framework' in Northern Ireland is designed to encourage collaboration between schools and colleges in post-16 provision. The framework obliges all post-16 colleges to offer a set number of qualifications to their students, taught either indirectly or directly. The framework has led to the collaboration and integration of post-16 resources in Northern Ireland, the benefit of which has been the equalising of study options for all, no matter the school attended.

- Create opportunities for teachers to undertake externships in industry, with the aim of applying their curriculum to practical business issues. Schools would welcome greater involvement from employers. With digital technologies changing so fast, it was felt that teachers could quickly become disengaged from digital 'in the workplace' even if they had started their career in industry.

- In Jersey itself, there are already projects, led by industry enthusiasts aiming to engage pupils in skills that they are currently not receiving on the curriculum. An example of this is The Computing for Primary Coding Project, more of this engagement should be encouraged to lessen the impact of any current gaps in teaching.

- More after school and holiday clubs teaching digital skills should be made available. It would give the students the opportunity to focus on specialising their preferred skills. This time provides a valuable opportunity for pupils to develop their digital skills, particularly if they were run in partnership with local employers.

- The proposed Digital Skills Partnership should look to partner with education, schools and colleges to co-develop curricular studies to bridge the gap between the skills being taught in school, and those needed in the work place.

- Consultation with schools should be included in this proposal, as some schools were frustrated by how little autonomy they had over what equipment or software they could purchase since this is managed centrally by States of Jersey Education Department.

Jersey should be commended as one of the first countries in the world to introduce the new computing curriculum that requires primary pupils to learn coding. The three main strands of the new computing curriculum are, computer science, digital literacy and information technology skills. The computer science strand has introduced learning on how computers and networks work. It also gives all children the opportunity to learn basic computer programming, from simple floor robots to creating on-screen computer games and programmes.

Though this is a positive step in the right direction for education, unless action is made to address the recommendations raised above many pupils going into secondary schools will find themselves learning a curriculum below their knowledge level. This lack of stimulation has the possibility of disenfranchising students from pursuing a career in digital, therefore secondary and post-secondary skills need to develop rapidly in this ever-changing digital landscape.

HIGHER EDUCATION
Level 6+ training, ongoing professional development, workforce re-training and knowledge transfer initiatives

The current provision of higher education training opportunities on-island are very limited. With secondary and further education, there is already an implemented training framework, one that can be developed and evolve with the industry. For higher education in Jersey, there are bigger steps to be made.

Supply-side analysis of training opportunities in the digital sector found a critical bottleneck to learning caused primarily by this limited supply of training opportunities, denying islanders the chance to reach their digital potential.

Research has concluded that the creation of a dedicated resource, the Digital Enterprise Academy, would enable multiple higher education programmes to develop. In a diverse industry, with a high demand for qualified students in the workplace, it is essential that the education programme is created with industry and employment in mind.

DIGITAL ENTERPRISE ACADEMY

INTRODUCTION

The Digital Enterprise Academy aims to be the principal delivery vehicle for professional training and higher education in 'digital', giving leadership, credibility and dedicated resources to digital skills training on-island.

Building on pre-existing courses in compulsory and further education, the Academy should focus on project-led qualifications. Namely degree apprenticeships, short-courses and modular CPD, blending technical and vocational training to prepare enrollees for a changing employment landscape. The Academy should be the step-change needed to accelerate the growth of Jersey's digital economy, offering a dedicated facility that socialises educators, learners and employers under one roof. Bringing these siloed activities under one shared space will power-charge the digital sector, forging relationships that ultimately lead to knowledge sharing and innovation.

CASE STUDY: NEXTGEN ACADEMY

NextGen is an industry-led education initiative to develop the next generation of talent for the Games, Animation and VFX industries.

NextGen received £6.5m of investment from Industry and Government. Investors include the UK Commission for Employment and Skills, plus a consortium of industry partners including Double Negative, Framestore, Moving Picture Company, Pinewood Studios and Sony Computer.

CASE STUDY: INSTITUTE OF LAW

Since its launch in 2008 the body has increased its annual intake of students substantially, with half its undergraduates now originating from France.

The Institute has been instrumental in upskilling local school leavers and preparing them for a career in law.

THE PURPOSE

PERMANENT
Lasting & flexible mechanism for the delivery of Digital Skills

LEADERSHIP
Giving digital skills a strategic direction and voice

IDENTIFIABLE
Unites siloed activity and gives gravitas to industry accreditation

FUNDING
Leveraging private capital to fund supporting infrastructure

VIEW OF EMPLOYERS

Young people in Jersey lack an interest in the types of digital careers available on island and employers find it difficult to compete with the finance sector in terms of profile. A Digital Enterprise Academy will do much to raise the profile of the sector in Jersey and to create a 'buzz' about its opportunities for growth. Employers can envisage the benefits to the sector as a whole, but need to be clear as to how it will benefit them individually. In terms of the Centre itself, the main feedback was that:

- It should be independent of government so that it can respond nimbly and flexibly to employers' needs.

- New cutting edge and innovative learning models should be adopted to give the Centre the edge in terms of staff development opportunities.

- Employers were enthusiastic about the benefits that students can bring through Internships and undergraduate/post graduate placements. Particularly those who had experience of such arrangements, for instance via Sussex and Southampton University.

VIEWS OF EDUCATION STAKEHOLDERS

Education stakeholders were supportive of proposals in principle, and while enthusiastic about the overall vision, stakeholders did raise a number of concerns. These include:

- A need to coordinate initiatives to encourage efficient use of resources and present a cohesive message to learners.

- That international reputation would need to be built in partnership with world-class higher education institutions and market leading companies. The Digital Enterprise Academy needs to be delivered at arm's length from Government.

- The availability of qualified teaching staff along with supporting infrastructure around curriculum development, accreditation and marking.

BENEFITS TO INDUSTRY

The success of the Digital Skills Strategy will be judged on its ability to cultivate the interest and involvement of local Industry as much as it will individuals. To do this, its education programmes must meet the needs of local employers, both large non-digital businesses and the micro digital businesses that underpin the sector. The training programmes should support the up-skilling efforts of Industry, working to bridge the resource intensive process of onboarding or redeploying staff, which for many companies, particularly the smaller ones, is a significant barrier.

The findings from our supply and demand side analysis uncovered a training landscape characterised by 'digital literacy' courses on the one hand, and 'Industry-entry' courses (provided by Digital Jersey) on the other. Corresponding interviews with Industry found that employers do not view the 'digital literacy' courses as helpful in meeting their needs, with the 'Industry-entry' courses limited to sourcing talent. The inadequate training pathways available on-island compounds the already challenging recruitment environment, with employers commonly responding to these difficulties by reducing the job specification of vacancies. This suggests that businesses are operating with a skills level below optimum. Inevitably, this is negatively impacting Industry, which ultimately impacts the economic productivity of Jersey.

In consideration of these challenges, our research suggests that the Digital Enterprise Academy should focus on an education programme that continues the learning progress of school leavers into Industry, in particular, employers showed an appetite for Digital Degree Apprenticeships, with 88% of local Industry respondents stating that these courses would be 'very helpful' in meeting their training needs. Other priorities include creating opportunities for masterclasses in emerging technologies, harnessing graduate placement schemes, and developing a calendar of events that provides opportunities for continued professional development and knowledge sharing. In particular, the Academy should explore the rollout of the following programmes:

COURSES AND ACTIVITIES

LEVEL 6/7	MODULAR CPD	RESEARCH INNOVATION
HE Apprenticeships	E-Learning Events & CPD Classes & Workshops	Graduate Placements

OPPORTUNITIES FOR INDIVIDUALS

Of equal importance to the success of the Digital Skills Escalator is to raise awareness, engagement and ultimately enrolment by individuals, be they mature students or school leavers, in digital studies. For this reason, the training programmes should look to complete the digital skills escalator by creating opportunities for students to boost their employability, for school leavers to pursue higher education in Jersey, and for career changers and entrepreneurs to learn the skills needed to transition into the digital sector.

Consistent with the findings from our supply and demand side analysis discussed earlier, opportunities for skills development outside employment is limited. Beyond key-stage 5 (level-3), individuals looking to advance their digital studies are limited to the short-courses run by Digital Jersey, the foundation Degree in IT for Business at UCJ and the Digital Trackers Apprenticeship. While these programmes serve their target audience well, more learning opportunities are needed if we are to lift the overall number of individuals pursuing 'digital' beyond key stage 5. These learning opportunities should reflect the breadth of roles in the digital sector, broadening their appeal and better preparing learners for a career in the industry.

Creating these opportunities is important if individuals from all backgrounds are to reach their potential, particularly as the current training landscape no doubt leaves many falling into careers that don't fully utilise their potential, with others studying off-island. For this reason, it is recommended that the Digital Enterprise Academy explores the rollout of the following programme, together aimed at realising the step-change needed in the island's skills profile.

COURSES AND ACTIVITIES

KEY STAGE 3-5	LEVEL 6/7	MODULAR CPD	RESEARCH INNOVATION
Internships	Higher Education	E-Learning Flexible short-courses	Students research

HE – DEGREE APPRENTICESHIPS

The Academy should promote employer take-up of Digital Degree Apprenticeship at both undergraduate and graduate level (6/7). The training would be employer-sponsored, full-time and delivered over four-years, mainly via distance learning. Specifically, to work with employers and the identified delivery partner to co-develop a curricular programme that meets their needs; with an emphasis on the non-digital businesses that make-up 40% of tech employment. The academy should foster connectivity between apprentices via weekly tutorials and chat forums, partnering with Trackers mentors.

HE – CATALYST DEGREE PROGRAMME

The Academy should explore the seed funding of a digital agency that provides a 2-year degree programme and post-study job opportunities. The agency could position Jersey as a centre of excellence in its discipline by co-investing in R&D, expanding its offering, recruiting off-island students, and ultimately establishing expertise similar to a Catapult Centre. The long-term aim would be to provide a constant pipeline of highly skilled digital specialists and produce a revenue generating agency that feeds off the local industry.

E-LEARNING

The Academy should coordinate the white labelling of specific and targeted e-learning programmes tailored to the needs of industry and individuals:

Industry: Aimed at 'refresher training' and 'advanced studies'. Where demand is greatest the Academy should look to remove barriers to the successful completion of online learning. Specifically, numerous studies have found that greater social interactions between learners and educators improves participation and completion. Accordingly, the Academy should develop a support structure that facilitates chat forums, meet-ups, and tutorials.

Individuals: Aimed at entrepreneurs and career changers. Course content should reflect its audience by delivering start-up support and 'industry entry' courses in basic digital disciplines. To encourage completion and to foster connectivity between students, the Academy should explore possible reward mechanisms, such as the opportunity to meet a mentor/investor, or have free access to a permanent working space upon course completion.

CLASSES & WORKSHOPS

The Academy should create a calendar of training events that meet both local and international demand. Specifically, the Academy should explore the coordination of 3-day accelerator programmes that are delivered by acclaimed trainers and enable participants to develop a thorough understanding of the topic being taught. The calendar of classes and workshops should be responsive and reactive to industry demands. The accelerator programmes would likely be ticketed events that target both domestic and international audiences.

FLEXIBLE SHORT COURSES

Digital Jersey already delivers entry courses in coding, digital marketing and data analytics, delivered over 12 to 24 weeks, with twice weekly tutorials. These should be repackaged and industry accredited under the Academy, with a drive to ensure their routine delivery, and consistent evolution to industry needs. The Academy should also look to expand its part-time delivery of 12-week courses, in particular, the academy should explore the roll-out of Data-science, Visual-design, and JavaScript Development.

EVENTS & CPD

The Academy should look to coordinate a series of events that attract high-profile speakers to discuss Industry trends and opportunities, with a focus on encouraging knowledge sharing by attendees.

HE PLACEMENTS

The Academy should look to partner with HE providers in the UK and elsewhere, to make it simpler for local employers to recruit off-island students for industry placements. This should include efforts to promote local employers to students preparing for a year in industry placements and collaborative research projects.

INTERNSHIPS

The Academy should work with education, industry and the third sector to coordinate 'discover digital schemes', such as shadow schemes, internships/work experience placements. With a particular focus on students in key stages 3-5, to inspire the next generation of tech talent, boost participants employability and improve industry-students connectivity.

LABOUR MARKET INSIGHTS

It is important that actions outlined in this strategy are properly monitored to ensure progress against performance indicators. The more detailed the data collected, the better positioned Digital Jersey and its partners will be to make effective policy decisions. To this end, it is recommended that a local labour market report is published on an annualised basis. The report should provide a snapshot of the digital sector, with the focus split into three parts, the skills pipeline (supply), sector growth (demand) and a broader piece on the Digital Tech Economy. The report should be prepared in collaboration with members of the proposed Digital Skills Partnership.

Supply-side Analysis

Building on the primary research undertaken to inform this strategy, future labour market analysis should continue to monitor the island's talent pipeline throughout all levels of education. Areas of focus are detailed below:

DATA SHOULD BE COLLECTED ON	OBJECTIVES
The number and gender of students studying 'digital' in compulsory and further education.	• To increase the number of students pursuing digital qualifications, with a particular emphasis on key stage 4. • To redress the gender imbalance between male and female enrolment on 'digital' courses, with a focus on encouraging female participation.
The number and type of digital courses on offer locally.	• To assemble a directory of learning opportunities for adults and students, providing details of funding opportunities. This should be promoted in partnership with Skills Jersey. • To ensure that all pupils, no matter their school, have equal opportunities to pursue 'computing'. • To inform curriculum development, led by the digital skills partnership.
Attainment on 'digital' courses, and destination outcome.	• To prioritise targeted intervention by the Digital Skills Partnership, where attainment and destination outcomes are below optimal.
The number of islanders pursuing higher-education in 'digital' off-island.	• To increase graduate retention and encourage the take-up of STEM based subjects, increasing the island's potential pool of talent.
The net migration of skills (migration to and from Jersey) and non-locals working in the Digital Tech economy.	• To monitor the island's reliance on immigration (by sector), and improve our understanding of the push-pull factors, driving employee decisions.
The migration of tech skills between sectors.	• To understand the transferable skills and qualifications that have cross-sector appeal. Incorporating these into the skills development agenda.

Demand-side Analysis

Similarly, Digital Jersey should continue to monitor the employment ambitions of the local digital sector. Future demand-side analysis should focus on changing skills needs, both in terms of soft and hard skills, as well as employment and wage projections. Better local labour market intelligence about the job opportunities available for people with suitable qualifications would also help learners to assess the likely return of their investment in terms of improved career prospects. Career changers would similarly benefit from access to said careers information, advice and guidance. The demand side analysis should have a particular emphasis on the following:

DATA SHOULD BE COLLECTED ON	OBJECTIVES
Employer demand for digital tech jobs, and how this varies between sectors.	• Run an 'Employment and Growth Survey' to make employment projections, assessing the impact of these changes on the employment landscape, and responding accordingly.
Monitoring occupational change in the island's workforce.	• Monitoring occupational change in the island's workforce.
Occupational average wage.	• To inform economic projections, and help prioritise resources into courses that return the greatest value to government.

Digital Tech Economy

The snapshot of the digital sector should include wider indication of activity, to capture the strength, depth and breadth of the local digital sector. It should highlight the unique strengths of the tech ecosystem, diving into the dynamics of tech activity on the ground, and showing where there are opportunities for investment and expansion. The Digital Tech Economy analysis should have a particular emphasis on the following:

DATA SHOULD BE COLLECTED ON	OBJECTIVES
International competitiveness relative to other similar sized digital-tech clusters.	• To improve the local digital tech clusters performance relative to other centres.
How vulnerable current employment in Jersey is to automation.	• To inform our efforts and resources aimed at re-training and upskilling life-long learning opportunities. Helping our island's population to respond to the demands of a changing economy.
The concentration of jobs in the digital tech economy in each sector of employment, by tech skills, occupation, and by sector.	• The concentration of jobs in the digital tech economy in each sector of employment, by tech skills, occupation, and by sector.
The sectors in which digital tech job vacancies are being created.	• To feed into our wider understanding of the island's skills needs, and thus training needs.
The concentration of business in the cluster, and what they specialise in.	• To show hotspots of digital tech companies and where their industrial strengths are/their stage of maturity.

CASE STUDY: JERSEY FINANCE

Jersey Finance runs an online 'Employment and Growth survey' to its members on a bi-annual basis, and has since March 2014. The survey focuses on growth projections in the short and medium term, which occupations are expected to increase, if expected jobs growth can be filled with on-island recruits, skills in demand (both soft and hard), and the difficulties employers have in recruiting suitable staff. The findings from this survey are circulated to key decision makers in Government, helping to inform training and migration policy.

INDUSTRY PROMOTION & ENGAGEMENT

Introduction

A key factor contributing to the local digital skills shortage is negative perception which is driving young adults towards different career paths. At a high level the digital sector suffers from a reputation characterised as male dominated, "geeky", with long working hours and little social life. These perceptions translate into the choice of qualifications that students and individuals elect to take. One such notable consequence is that too few women pursue a career in the digital sector, diminishing the pool of available talent further. In 2011, just 15% of digital occupations were led by females compared with an overall figure of 45% for the Jersey workforce as a whole. In addition, interviews with local industry leaders found widespread difficulties in competing with the finance industry in terms of profile and starter remuneration.

Positively raising awareness and interest in the local digital sector will be key to increasing the number of students studying 'digital' qualifications, and ultimately increasing the pool of talent going from school into industry. Digital Jersey's efforts should focus on four groups: students, educators, influencers and Jersey nationals living abroad. These efforts should be underpinned by a theme of inclusion and progression, with a particular focus on gender equality.

Students

To increase the pool of talent going from education into industry, it is vital that students have greater awareness and understanding of the opportunities presented by a career in the digital sector. To this end, it is recommended that Digital Jersey works with Skills Jersey and partners on a student engagement strategy. This should include discover digital days, student internships and placements. These efforts should be complemented by collateral that demystifies the careers in the digital sector, giving clarity to the everyday practices of a digital professional. As part of this, Digital Jersey should raise awareness of training pathways that branch into sector specialisms, such as Digital Marketing, Data Analytics and Software Development. This would in practice be a learners' directory.

Raising awareness of the local industry should be part of a broader piece that celebrates local success and innovation, demonstrating that interesting and cutting edge jobs are available locally.

Educators

Our supply-side analysis found a disconnect between the digital educators and employers. To address this, it is recommended that steps are taken to foster relations between industry and education so to encourage businesses to play an active role in providing educators with the information, advice and guidance that they need. To bridge the communication gap, Digital Jersey should work with Skills Jersey to create forums for digital educators to socialise with industry.

Specifically, Digital Jersey should work with Skills Jersey to bring young people and their teachers in close contact with employers. A possible model is externships, whereby teachers and career leads have the opportunity to undertake an externship in a local digital business. These externships give teachers a unique insight into the running of the business, the range of jobs in the organisation and how to practically relate this to their curriculum area. Ultimately, this initiative would aim to increase teachers' knowledge and understanding of the world of work, to help them to bring real life examples of how their subject is used in a practical way.

CASE STUDY: CODENTIA & TRIDENT

In early 2018, Codentia, a local web and software development agency took part in the Trident work placement scheme managed by Skills Jersey. The business has since continued to employ the Key Stage 4 student over their summer holidays. This is just one of many examples of how internships serve in positively addressing friction in the labour market, giving students access to employment, and employers a pipeline of talent.

Jersey Nationals Living Abroad

Demand-side analysis found a strong interest from industry for greater connectivity with students studying relevant qualifications off-island. Accordingly, Digital Jersey should develop a framework, aimed specifically at convincing the island's high-skilled community living overseas to return to Jersey. The framework should mirror the success of similar schemes, like that led by the Republic of Ireland and elsewhere, which have successfully utilised the human, economic and social capital of their overseas communities to help reverse perceived 'brain drains'.

To do this, Digital Jersey should partner with the Government of Jersey and Skills Jersey to identify and communicate with Jersey nationals living abroad. Efforts should focus on promoting local job vacancies to graduates who have studied related disciplines, creating opportunities for islanders pursuing higher education off-island to return for work placements/internships in Jersey, and targeting the islanders living abroad with social media ads that draw attention to local industry opportunities.

Digital Jersey should also explore opportunities to collaborate with the Jersey Government's London Office, Skills Jersey and External Relations to hold joint events aimed at keeping the diaspora community active in island life.

Influencers

Multiple studies have found parents/guardians to be the most important influencers when students are in the career decision-making process. For this reason, it is important that Digital Jersey works with Skills Jersey to engage key influencers to promote the digital sector as a credible and desirable career choice.
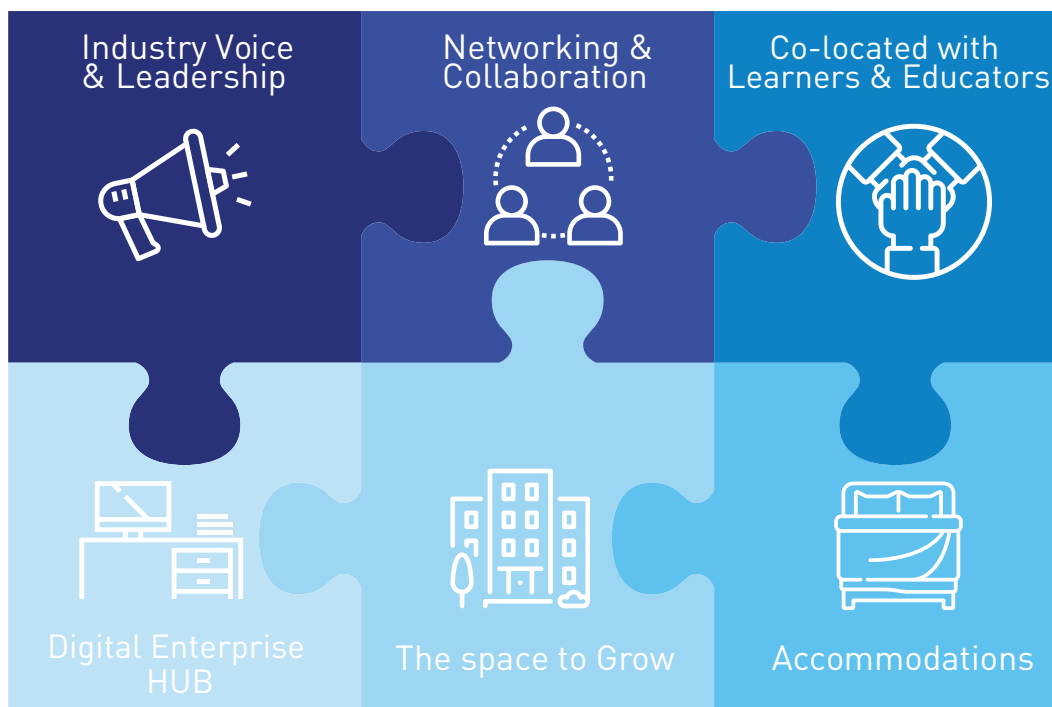
Responding to existing perceptions among key influencers will overlap with Digital Jersey's wider campaign to raise the awareness of the industry. However, particular effort should be made to create a dedicated online presence aimed at promoting the educational and employment opportunities on-island, with real life case studies of local 'tech ambassadors'.

CASE STUDY: THIS IS ENGINEERING

This is Engineering is a multi-year campaign led by the Royal Academy of Engineering in partnership with major engineering organisations to change the perception of engineering among young people aged 13-18. This is Engineering challenges misconceptions, by presenting a positive image of modern engineering. Case studies from real young engineers illustrates how engineering underpins many of their interests in sport, fashion and tech for example – and that they can follow what they love into engineering, and in doing so help shape the future. The campaign has an active social media presence via #thisisengineering.

THE INFRASTRUCTURE
COLLABORATION BY DESIGN

The centre's environment would aim to encourage design thinking and reduce the innovation cycle through the incubation and rapid prototyping of ideas. The makeup of users would seek to steer industry by connecting users, start-ups and learners to solve on-the-ground problems faced by that field.

Industry Voice & Leadership | Networking & Collaboration | Co-located with Learners & Educators
Digital Enterprise HUB | The space to Grow | Accommodations

Industry Voice & Leadership

For Digital Jersey's Skill Strategy to be a success, it is vital that industry plays a leading role, providing oversight and strategic direction. The UK Digital Strategy, launched in 2017, similarly recognises the role of employers in training and upskilling, with its own training objectives relying heavily on industry involvement.

As plans for a Digital Enterprise Academy progress, the Digital Skills Partnership should branch into two forums, one focused on support for educators in compulsory educations, and a second giving direction to the Digital Enterprise Academy.

To firmly position industry in the driving seat, it is recommended that the Digital Enterprise Academy is governed by a 'cooperative' structure. As a cooperative, employers would advance the digital skills capabilities of Jersey by shaping the Academy's research agenda and course content, allowing employers and their partners to gain access to talented resources and collaborative opportunities. This structure would have the added benefit of giving industry a stake in the Academy's success, with membership open to all employers that share the vision, and providing industry tailored training. After all, a problem shared is a cost halved.

It is important that members collectively share a united vision for the academy, providing expertise that contribute to the ability of the centre to fulfil its mission. Approximately three members would be responsible for ongoing oversight and management, while the wider group would have responsibility for planning and formulating policy to guide the programmatic direction of the academy

The chairmanship of the cooperatives should rotate annually between members, with other representatives on the cooperative including key stakeholders in government and education.

Co-located with Learners and Educators

In today's highly competitive economy, innovative companies are seeking novel approaches to bolster their research and commercialisation goals. Co-locating employers and learners in the same or adjacent physical space is one-way organisations can facilitate the flow of ideas and innovation, ultimately forging collaborative partnerships with learners, educators and future employees. The integration of learners, educators and employers in a dedicated space encourages the exchange of ideas by reducing communication and cultural barriers that accompany the physical challenge of being in different locations.

We believe that the daily interaction between these siloed activities will also draw more entrepreneurial educators and bolster the Digital Enterprise Academy's appeal to students, as well as to companies looking to hire new talent.

For this reason, it is recommended that the Digital Enterprise Academy embeds in both its customs and architecture an environment that stimulates interaction. The building should include shared facilities and communal spaces, so that learners, educators and employees pass by one another, encouraging hallway conversations.

The connections between these participants will become more natural as educators look for more ways to apply their curriculum to industry needs, as students seek greater value for their studies, and as companies want more input into developing their workforce.
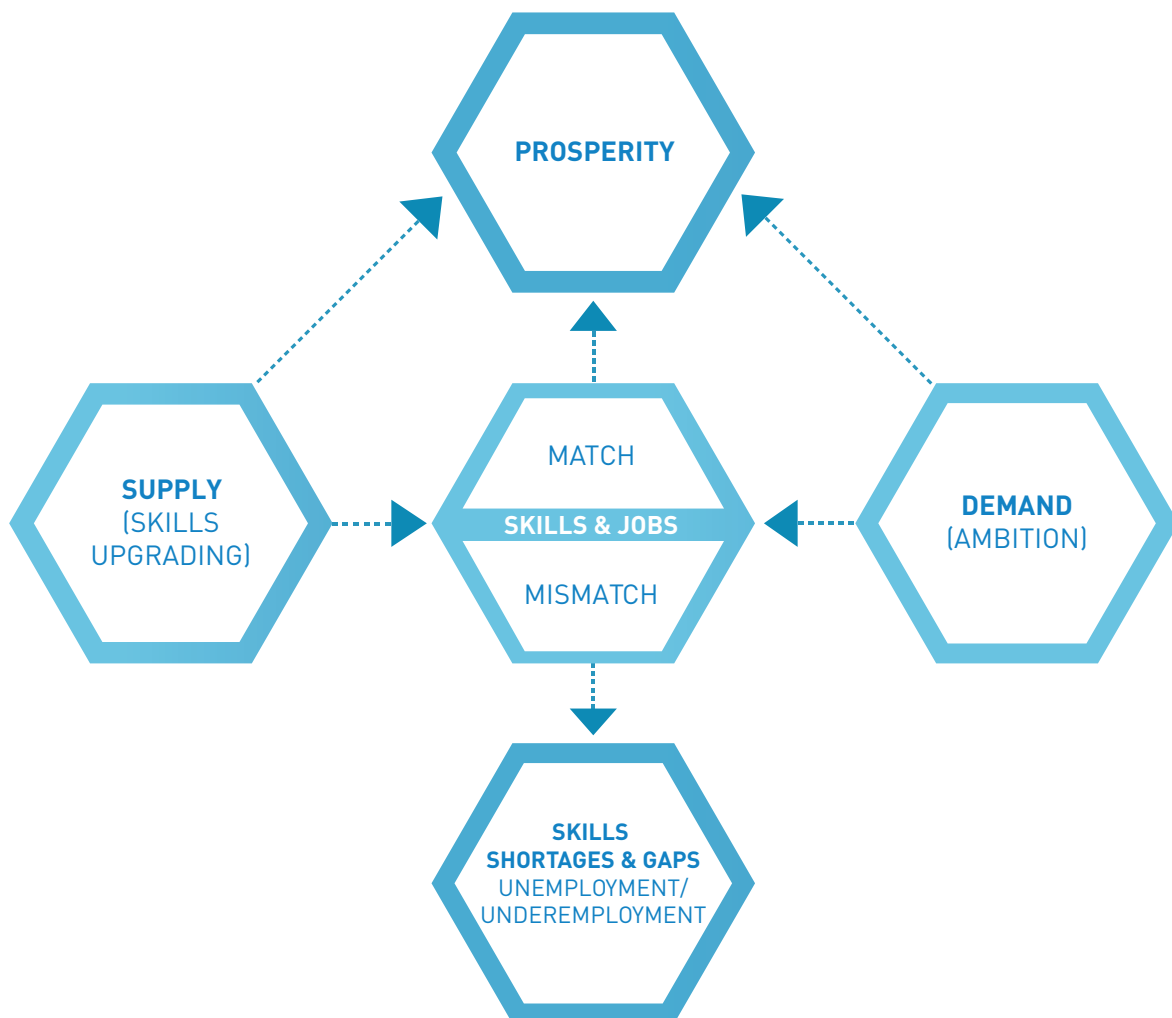
Digital Enterprise Hub

Embedded within the Digital Enterprise Academy should be an accelerator space which would provide new and emerging technology and compatible businesses with an environment that supports their product development phase and increases their likelihood of success.

This space would reduce entrepreneurs' barriers to entry by providing an environment for emerging companies and corporate innovation teams to network and collaborate by offering affordable/free office space, access to shared equipment, meeting facilities, and on-site business and technical assistance. These services lower the overhead and operating costs during the critical formative product development years.

Learning from the experience of similar spaces, such as the Sussex Innovation Centre, the start-up space could be an evolution of the already successful Digital Hub, providing:

• Events space and meeting rooms to co-host beta-testing and training

• Cross functioning project team space
• A blended work space with hot-desks, permanent desks and cellular private offices on flexible leases

At the heart of the proposed Digital Enterprise Hub should be communal spaces that allow for frequent formal and informal interaction.

CASE STUDY: SETSQUARED

v is a partnership between the universities of Bath, Bristol, Exeter, Southampton and Surrey. The centre is ranked as the world's top business incubator. It nurtures technology-based businesses throughout their lifecycle from idea through to investment and scale-up.

Since its launch in 2012, the Bristol centre has created over 1,300 jobs and its members have raised over £119 million of investment.

The Space to Grow

It is equally important to consider the environment that digital businesses need in their 'growth' phase. After all, accelerator space is just one part that makes up a thriving digital eco-system.

When local employers with bases elsewhere in the world talked about the advantages of their other locations, it was clear that 'environmental' factors were key motives, these are elements more difficult to quantify like the 'buzz' of a university town, the 'culture' that surrounds it and the 'commercial space' that supports it.

This is important because employers, as much as educators have a role to play in the upskilling of the island's workforce. As businesses scale, their employees' skills are better utilised and focused, further boosting the local skills base by creating opportunities to work in companies that use their skills to greatest effect in an innovative environment. These larger businesses also have the scale to create structured staff training plans, further boosting workforce skills.

Creating space to grow, similar to that on offer in technology/science park environments, will also significantly increase the visibility and presence of tenant companies. Being recognised as part of an innovation

community has reputational and brand awareness benefits which imply a forward-thinking edge, enhancing partners' statures and increasing their chances of success.

However, our research found a tendency for tech start-ups to scale off-island once reaching around 20 staff.

For this reason, it is important to consider the built environment not in isolation, but rather as part of a multitude of factor that will enhance the digital skills strategy.

CASE STUDY: CODEBASE

Case Study: CodeBase is the UK's largest start-up incubator, home to more than 100 technology companies. The centre brings together entrepreneurs, techies and top investors, in a creative, collaborative environment designed for the new digital economy. The centre hosts open community events where experts in a diverse range of fields can offer hands-on mentorship, networking and world-class business support/training.

Networking & Collaboration

A key feature of the Digital Enterprise Academy should be to foster opportunities for relationship building and collaboration. These networking events, or forums should look to address companies' unique needs for partnerships, suppliers, and/or potential sources of capital.

Accordingly, networking and relationship support should be defined in the build environment, but also in the active role played by the centre in connecting members and users who might not otherwise have met.

Accommodation

A feasibility study into flexible and short-stay accommodation should be undertaken to uncover the demand profile of perspective tenants, and or users, with a detailed business case created.

The findings from our research, and that of other studies, strongly suggests the need to take an international view of talent attraction and retention. Particularly in relation to the digital sector, which is global by its nature. For this reason, we believe that it is important for Jersey to develop schemes that encourage knowledge transfer, with the goal of upskilling the island's workforce, creating a soft landing for foreign direct investment and enhancing the experience of domestic students enrolled on courses at the proposed Digital Enterprise Academy.

In particular, there are opportunities for Jersey to take advantage of the following schemes:

Company Retreats:
Building on the island's already successful proposition in health/yoga retreats, company retreats are increasingly popular for off-site team building. These retreats are designed to bring employees closer together and act as a test-run for relocating businesses. Such an offer would also lend itself well to 'sandbox Jersey' in creating a temporary environment for companies to relocate, test, and launch a new service or product.

Student Placements:
To cultivate a partnership(s) with an off-island graduate and postgraduate provider for year in industry placements, internships of up to 12 weeks and contract based research. These studentships provide companies with access to cutting edge knowledge and skills from a wide range of academic disciplines.

Flying Faculty:
Where virtual training is impractical, to run a series of impactful seminars or speakers as part of a wider training programme.

Off-island Students:
To promote courses to off-island students, in so doing enhancing the experience for domestic students and bringing the benefits to economics of scale to courses.

Our discussions with industry found an appetite to engage in knowledge transfer schemes. One Fintech company interviewed had taken on three student placements from the University of Southampton to co-develop new software. Unfortunately, a cost-benefit analysis later found the cost of housing the placements outweighed the benefits. The company has since opened an office off-island to take advantage of a greater talent pool.

Accordingly, the availability of short-stay and flexible housing is necessary to create a soft landing for teachers, students and others. Specifically, dedicated accommodation is needed to:

- Ensure suitable accommodation is provided within the island's housing system.

- Nurture the social interactions that make international communities more likely to stay as knowledge workers and contribute to the economy.

- Attract off-island students, educators and industry placements.

There is evidence of demand for dedicated accommodation of this nature from those already enrolled at the island's English Language Schools (for foreign students), and also students undertaking degrees with the Institute of Law.

CASE STUDY: JERSEY'S FINANCIAL SERVICES STRATEGIC REVIEW

The 2013 island's financial services jurisdictional review concluded that Jersey should enhance its offering and capacity to host international and overseas students to increase cultural understanding and international familiarity with Jersey.

It recommended that Jersey creates an offering and capacity to host international and overseas students to study in Jersey with the long-term goal to develop further partnerships with renowned foreign business schools to create shared courses and exchange programmes. This will not only provide Jersey with a larger talent pool but it will have wider impact on the economy.

RESOURCE NEEDS

DIGITAL SKILLS ACADEMY

The University of Exeter has provided a range of costings for a new Digital Skills Academy. Costings here are largely based on the assumption that it will be a 'new-build' mix use development.

The public sector is usually instrumental in the conception and implementation of crucial infrastructure needed to underpin growth in knowledge intensive sectors. The material needs of the Skills Academy will require a substantial footprint. The preferred route is that public land is utilised. If land cannot be acquired, a significant refurbishment may be cheaper, but less desirable. A public-private collaboration with either Jersey Development Company or Jersey Property Holding is recommended.

CASE STUDY: EXETER SCIENCE PARK

Funded by the Devon, Exeter and East Devon councils, the £8 million facility provides accommodation for knowledge-intensive business start-ups and training facilities run by the University of Exeter.

40 UNITS

Given the active role of accommodation in enabling post-secondary education, supporting knowledge transfer and industry appetite for skills, a reasonable starting point is 40 units of accommodation.

A typical student room is 13-16m² with en-suite (lobby/kitchen) this becomes 25-30 m² per person.

3,000M²

Experience from a number of similar developments has shown that at least 3,000m2 of training and accelerator space is needed for a critical mass of tenants and economies of scale in the provision of services.

Creative open space typically accommodates one person, per 9-14 m2 of "usable" office space. Therefore, the Academy could accommodate approximately between 125-150 staff.

COSTS RANGE

Building prices can be influenced significantly by local conditions, local market conditions, size and specification. The prices given here are intended only as an indicative guide and should be used with caution as prices outside these ranges can be encountered in meeting local conditions and specific client requirements.

|	Lower Quartiles	Median	Upper Quartiles
Accommodation	£1,603,200	£1,836,000	£2,167,200
Training/Office space	£6,516,000	£7,545,000	£11,025,000
Total	£8,119,200	£9,381,000	£13,192,200

*The above figures exclude costs for fixtures and fittings. These figures also exclude necessary reserve costs of 20% for external works (landscaping, drainage etc.) and professional fees. It is recommended that a detailed feasibility study is undertaken.

REVENUE GENERATION

Based on similar models, it is expected that the Digital Enterprise Academy could generate income from three sources of activity: accommodation, serviced office space, and chargeable training events.

Typically, each unit of student accommodation in the UK generates in the range of £5,500 and £7,500 per-year. However, this varies depending on the length of stay and contract of tenancy. On average, there is a 10-15 year return on investment on student accommodation. For serviced office space, annual rent is in the range of £16-£35 sqft for prime St Helier locations. At this time, a comprehensive feasibility study is needed to calculate potential revenue generated from commercial space and chargeable events, which in part will depend on take-up of ticketed events and how the envisaged 300sqm will be split between commercial, accelerator and training space.

INDUSTRY PROMOTION
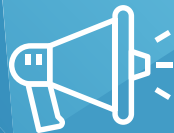
Efforts to raise awareness of the local industry by engaging in specific and targeted marketing, can in part be absorbed into the ongoing work of Digital Jersey. However, designed campaigns and paid for ads will require additional budget to be made available. Corporate sponsorship could be sought to lessen the burden on public resources.

LABOUR MARKET INSIGHTS

Efforts to better capture and monitor activity in the island's digital-tech economy and training landscape will likely require significant investment in time and financial commitment. The monitoring of course enrolment, attainment, and the number of students pursuing HE off-island would likely need direction from the island's statistical body, while efforts to measure the digital-tech economy will require leadership from Digital Jersey. A specialist in 'innovation-analytics' should be engaged to undertake the latter half of the work.

STUDENT FINANCING

The criteria determining eligibility for student finance should be repositioned to reflect changing circumstances. In particular:

- Financial assistance for undergraduates should be made available to students enrolled on 'Degree Apprenticeships' with local employers. Skills Jersey (Student Finance) should work with Digital Jersey and industry to identify and recognise accredited and non-accredited courses delivered online (Distance Learning) that would meet employee needs and should thus be eligible for 'distance learning' funding.

- The eligibility for 'Skills Bursaries' should be broadened to accept applicants up to the age of 25 and that Skills Jersey (Student Finance) works with Digital Jersey and Industry to identify off and on-island courses, accredited or non-accredited that should be applicable for 'Skills Bursaries.'

The cost of making these amends, would likely be minimal, but nonetheless financial modelling should be undertaken.

SKILLS ESCALATOR (SCHOOLS)

If implemented, the recommended changes to secondary and further education aimed at boosting enrolment and attainment in digital subjects will likely have a financial impact across education. However, without fully understanding the baseline of existing IT equipment in schools, nor the precise resource sharing opportunities, estimating a budget implication would be fruitless. Nonetheless, actions that require little spending offer quick wins, for instance, Creating opportunities for teachers to undertake externships in industry.

FUNDING

Foundation

Following the same model of other newly created universities, training centres, and technology parks of recent times, it is recommended that a 'Digital Education Foundation' is launched.

The foundation would be a non-governmental entity that is established as a non-profit corporation or a charitable trust, with a principal purpose of making grants to the proposed 'Digital Enterprise Academy'. The operating model for a Foundation must be commercially sustainable, with a charitable status that means profits will ultimately go back into the foundation for other educational projects within the Jersey Digital Community.

It is proposed that private and public capital is harnessed to co-fund and launch the academy, leveraged via the Digital Skills Foundation. This could be achieved by seeking sponsorship for defined areas of activity, such as to employ an Education Co-ordination Officer to manage the day to day activities of the Academy. Exampled below are similar education foundations that have successfully funded new higher education facilities and courses.

CASE STUDY: ISLE OF MAN

Founded in 2009, The Manx Educational Foundation (MEF) has a mission to foster and support the direct linking of education to Manx economic development. Sixteen local businesses stepped up to be founders and invested into a three-year commitment to provide seed finance and guidance to MEF. Along the way, MEF also raised £750,000 to secure the continuation of the Family Library and Mobile Library.

By 2014, MEF had raised through pledges, £12.5m and in January 2015, the foundation started work on a university centre.

CASE STUDY: HEREFORD TERTIARY EDUCATION TRUST

The 'Founder Fund' invited 100 individuals, businesses and organisations to make a minimum donation of £5,000 to realise the vision of a university in Hereford. The foundation raised 20 million and will open to its first cohort of 300 students in 2019. The aim of the newly created and launched university is to;

- Transform the social and economic fabric of Hereford;

- Transform the teaching of STEM in the UK;

- Transform university education to deliver globally employable, work-ready graduates that through the application of interdisciplinary skills can innovate and problem solve.

NEXT STEPS

Throughout 2018, Digital Jersey will start actioning the recommendations outlined in this report. The first priority will be to engage the multiple bodies that have a role in delivering the island's digital skills. This includes co-hosting an event with the research team from the Marchmont Observatory, to present their findings and recommendations to key industry and government stakeholders. The event will be followed by a number of individual meetings with core partners to build consensus. Equally important will be engaging with the new States Assembly that will form following the May 2018 elections. These conversations will look to agree roles and responsibilities between Government departments, Digital Jersey and Industry; following which, a full feasibility study will be undertaken into building a Digital Enterprise Academy, and associated higher-education courses. By the end of 2018 we want to have a costed, agreed and approved proposal for the launch of the proposed academy and its corresponding university infrastructure.

In parallel to these efforts, Digital Jersey will work with partners to action the elements of the strategy which are more quickly achievable. This includes launching the Digital Skills Partnership with colleagues in education and industry, agreeing a term of reference and addressing communication gaps between what industry needs, and what learners are taught. Digital Jersey will also continue its efforts to raise the profile of the digital sector locally, by repositioning marketing activity to bring clarity to digital occupations, raise awareness of local success through 'digital ambassadors', and work with partners to encourage highly-skilled Jersey nationals living overseas to return. Feeding into this activity will be our efforts to continually develop our understanding of activity in the sector, these insights will be greatly enhanced by our planned work with Tech City to undertake an in-depth analysis of the island's digital-tech economy.

Building on our recent work with Skills Jersey and their Trident and Work Shadow Scheme, we will also look to extend opportunities for industry placements, both for learners and educators. Equally, we will bring greater consistency and structure to the courses we already run, while working with industry to identify and facilitate short accelerator workshops, and hosting targeted networking events that seek to remove labour market friction. Underpinning these efforts will be a new brand that raises the profile and recognition of skills and training activity.

To achieve this, Digital Jersey will need the support of employers and educators. We'll be looking for employers to take on interns, mentors from industry to lecture on our courses, and digital ambassadors to help raise awareness of the opportunities that the sector offers.

ACTION PLAN

Skills Partnership - Oversight of the Digital Skills Strategy	
Create a Digital Skills Partnership, with representation from industry and education.	The partnership should work with educators to co-develop curricular studies. Bridging the gap between skills taught in schools, and those needed by industry. A sub-group of the partnership should give direction to the digital enterprise academy.
Digital Skills Escalator	
Enhancing secondary and further education in 'Digital'.	Collate teaching resources and use online learning to improve students access to computing qualifications at GCSE level (level-2). Propose the upgrading of existing IT equipment/infrastructure in schools as part of the 2020 Medium Term Financial Plan. Recognise 'Computing' as a core science at GCSE level, alongside other main subjects. Creating opportunities for teachers to undertake secondments in industry. Creating opportunities for learners to develop their digital skills in after-school and holiday clubs. Explore if centrally controlled procurement of IT equipment could be devolved to schools, providing teachers with the flexibility to innovate.

Digital Enterprise Academy (Institution Building)	Launch a 'Digital Enterprise Academy' with its own brand. This will raise awareness, interest and status of training opportunities available in 'Digital', and bring together Digital Jersey's current 'training' activity. Launch a 'Digital Enterprise Foundation' and associated management structure as the principal mechanism for funding and delivering the Academy. Engage a specialist to develop a business plan, feasibility study and associated costings for a 'Digital Enterprise Academy'. The study should consider the scale and resources needed to achieve the goals set out in this skills strategy. Namely: • A serviced space that co-locates learners, educators and industry via shared facilities and communal spaces. The space should include, accelerator space, room for businesses to scale and flexible short-stay accommodation. • Potential revenue that could be generated by offering profit making events and short courses.
Higher Education and CPD.	The criteria determining eligibility for student finance should be repositioned to reflect changing expectations of 'skills development'. In particular: • That financial assistance for 'Undergraduates' is made available to students enrolled on 'Degree Apprenticeships'. • That courses delivered online are identified and recognised, either accredited or non-accredited as meeting local employee needs and should thus be eligible for 'distance learning' funding. • That the eligibility for 'Skills Bursaries' are broadened to accept applicants up to the age of 25 and that Skills Jersey identify off and on-island courses, accredited or non-accredited that should be applicable for 'Skills Bursaries.' Working with industry and the delivery body, create a social framework that support the adoption of 'Digital Degree Apprenticeships' in Jersey. Work with industry to design and implement a project based degree, which blends academic study with vocational interaction. Develop a structured programme of short-courses and training seminars. This should include: • 3-day accelerator programmes (industry) and events presented by high-profile speakers. • Bring consistency to the scheduling of DJ courses (Digital Marketing, Coding etc.) and explore the launch of new courses. Digital Jersey should explore the white labelling of online resources. This would help encourage those interested in joining the Digital sector to do so, and help those already in industry, but keen to develop their skills. This should be accompanied by an 'incentivisation framework' to encourage course completion. Digital Jersey should be more targeted in the hosting of networking events, or forums. These networking events should look to address companies' unique needs for partnerships, suppliers, and/or potential sources of capital. Digital Jersey should work with educators and industry to boost local student employability and address industry's immediate needs for skills by coordinating a number of Internships and work placements. These placements should branch into: • University partnerships for year in industry placements etc. • Opportunities for students in Jersey to boost their employability via 'discover digital' schemes.

Labour Market Insights	
Annual Labour Market Insights survey	To monitor progress against the recommendations outlined above, Digital Jersey should replicate the primary research undertaken to inform this skills strategy on an annual basis. The survey should include: • Employer demand for digital tech jobs, and how this varies between sectors. • Monitoring occupational change in the island's workforce. • Occupational average wage. Similarly, Digital Jersey should continually monitor changes to industry demand by running an annual survey. The survey should include: • The number and gender of students studying 'digital' in compulsory and further education. • The number and type of digital courses on offer locally. • Attainment on 'digital' courses, and destination outcome. • The number of islanders pursuing higher-education in 'digital' off-island. • The net migration of skills (migration to and from Jersey) and non-locals working in the Digital Tech economy. • The migration of tech skills between sectors.
Measure Jersey's Digital Tech Economy	To inform Digital Jersey's future training priorities and to better promote and raise awareness of the local industry, Digital Jersey should enhance its understanding of the local digital-tech economy. Future research should prioritise: • International competitiveness relative to other similar sized digital-tech clusters. • How vulnerable current employment in Jersey is to automation. • The concentration of jobs in the digital tech economy in each sector of employment, by tech skills, occupation, and by sector. •The sectors in which digital tech job vacancies are being created. • The concentration of business in the cluster, and what they specialise in.
Industry Promotion & Engagement	
Raise awareness of the local industry by engaging in specific and targeted marketing.	Create a student engagement plan that prioritises efforts at bringing clarity to 'digital occupations', raises awareness of training pathways (learner's directory) and celebrate local innovation. Create an educators' engagement plan that prioritises efforts to foster connectivity between educators, learners and industry, addressing real and perceived communication gaps between what industry needs, and what students are taught. Create an influencers' engagement plan that aims to promote the digital sector as a credible and desirable career choice. The comms plan should centre on a dedicated online presence aimed at promoting the educational and employment opportunities on-island, with real life case studies of local 'tech ambassadors'. Create a diaspora engagement plan specifically aimed at convincing the island's highly skilled diaspora community to return to Jersey. The engagement plan should focus on improving industry-diaspora connectivity by promoting local job vacancies (to graduates who have studied related disciplines) and creating opportunities to return for work placements/internships. These efforts should harness targeted social media ads. The policy framework should outline key performance indicators in relation to returnee graduates and industry-learner connectivity.

ECONOMIC CONTEXT
ECONOMIC BACKDROP

£40K The average standard of living in Jersey, measured by GVA per head per population.

18% Is the amount GVA has fallen in real terms since 2007. This fall was mainly driven by a downturn in the finance sector.

20% The substantial percentage productivity levels have fallen in real terms between 2007 and 2015.

Skills are inextricably linked with the growth and development of the digital economy. A strong link can be shown between higher education, higher salary levels and a successful digital sector.

The OECD Employment Outlook reinforces this point in finding that cities with a high concentration of workers with higher education have seen increased productivity and earnings in their Digital Sectors. The relationship between innovation and a highly skilled workforce is reinforced by research undertaken by the 'Centre for Cities' which found cities with the greatest share of graduates have seen the biggest increase in 'new work' professions e.g. Creative and Digital sector. These same factors have corresponded to the greatest rise in job growth, productivity and average earnings. Indeed, a study of LinkedIn profiles over the past five years, shows a significant increase in occupations with high levels of digital skills, such as in software development, social media, data science, user interfaces, digital marketing and cloud services. This indicates that occupational employment is shifting from manual and repetitive tasks to those that require higher levels of cognitive creativity. These are roles for which the digital sector is a significant creator.

This has occurred in the broader context of a polarizing jobs market, with an increase of low and high-skilled jobs and fewer medium-skilled jobs. This trend can partly be attributed to automation, which is beginning to remove the need for many mid-level jobs occupied by the lowest educated. This trend is further exacerbated by the proliferation of remote working, which is increasingly removing physical barriers to company expansion and, in doing so, fuelling the success of towns and cities with a high skills profile.

Employment outlook

One-third of the Jersey workforce hold Level 4 qualifications or above, which is marginally higher than in England, although this is largely due to a higher proportion holding higher education qualifications below degree level; Only 20% have degree or above qualifications (census 2011). If compared against Britain's top 20 biggest tech hubs, only Birmingham has relatively fewer degree level graduates. Compared to UK cities more widely, on this measure, Jersey is in the bottom 30%, marginally ahead of Preston and below the likes of Swansea and Dundee.

The share of the workforce with their highest qualification at Level 3 (i.e. technician level) is significantly lower than that of England and there is an even higher share of those with no formal qualifications at all. This shows there is a large gap in the qualification levels of the workforce, with a high number who would need to significantly increase their skill level to meet the higher education band.

Pie chart values: 2%, 20%, 14%, 44%, 20%
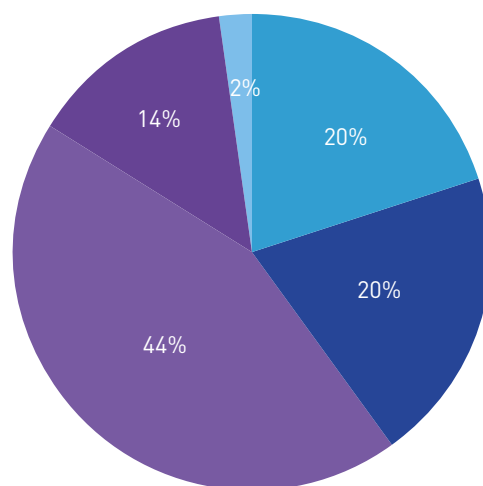
- HIGHER EDUCATION BELOW DEGREE-LEVEL
- SECONDARY LEVEL
- HIGHER EDUCATION AT OR ABOVE DEGREE-LEVEL
- NO FORMAL EDUCATION
- OTHER

Universal future skills requirements

Applying UKCES Working Futures forecasts 2014-2024 to the occupational estimates generated by the Jersey Opinions & Lifestyle survey indicates:

- Future jobs growth will be centred on highly skilled jobs – i.e. senior managers, directors, senior officials, professionals and associate professionals.

- The only other category likely to see growth is relatively low-skilled jobs such as caring, leisure and other services occupations, which require human interaction, so will not suffer reduced employment from the increase in automation.

- Few jobs will call for no skills at all. Many low-skilled jobs will shift to require communication skills, team working and customer care skills.

- Centre for Cities research found that areas with a low skills profile are most vulnerable to automation, with 30% of the occupations very likely to shrink in areas including Mansfield and Sunderland by 2030. This contrasts with cities such as Cambridge and Oxford where less than 15 per cent of jobs are at risk.

This ongoing shift will have implications for the level of qualifications required to meet the labour market needs, with the projected growth in the demand for people with higher education qualifications (Level 4+) the strongest.

The pipeline of skills presents a further challenge, with few young people pursuing STEM subjects or technical qualifications; the changing skills needed for the workforce of the future are not being met.

Unless there is a change in the numbers of people learning relevant qualifications at Level 4+ and local graduates can be attracted back to the Island in greater numbers, employers will increasingly need to meet their needs from migration.

Evidence shows that in the UK the demand for staff with skills in big data analytics is rising at an almost exponential rate: unfilled vacancies rising from less than 400 vacancies in the third quarter of 2007 to almost 4,000 in the third quarter of 2012 (or by 972%).

Current recruitment difficulties are increasingly reflected in the salaries commanded by those who work with big data. In 2013, these averaged £51,000; 30% above the average for all UK managerial/professional salaries and 80% above the average salary for all UK workers. More recent analysis suggests that the median salary for 'data scientists' has risen to £56,400, with additional premiums for those with more specialised skills.

The Skills Jersey Employer Survey 2017 identified that Jersey businesses already have widespread concerns over the level of digital skills among the island's workforce, highlighted by the difficulty finding suitably skilled people from within the local labour force. The Jersey Innovation Review 2015 also concluded that the access to the right talent and the skills in the workforce are a major constraining factor for Jersey's innovation performance.

Jersey does currently have a healthy labour market, with low levels of unemployment, a growing economy and dynamic labour laws, but with the skills gap in the labour market and the predicted pipeline of qualifications, it will be a challenge to just stand still in the globally competitive environment in which it operates.

CASE STUDY: FUKOKU MUTUAL LIFE

In early 2017 the Japanese Insurer, Fukoku Mutual Life replaced more than 30 employees with an artificial intelligence system that calculates pay-outs to policyholders. The move towards AI is expected to Increase the companies productivity by 30% and see a return on investment in less than two years. This was one of the first tangible examples of automation making redundant those in professional services, a threat that could impact the Jersey economy harshly.

THE DIGITAL ECONOMY

The recently launched Digital Policy Framework and Cyber Security Strategy set out the States of Jersey Government's ambitions for a vibrant digital sector which will play an important role in the diversification of the economy and will be a key driver of productivity-led growth. The Framework aims to ensure that the Island will become one of the most attractive locations in the world to run a digital enterprise. Skills Jersey report recommended the creation of a skills academy etc.

The Office for National Statistics, 2015, defines the digital industry as:

Digital economy:
E-commerce / e-business (the trading of goods or services over computer networks such as the internet)

Digital sector:
Supporting infrastructure (that is, hardware, software, telecoms)

The integrated nature of the digital economy was highlighted by (Nesta), who found 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 industry classifications.

IN JERSEY:

500+ Specific digital economy businesses

2750 Digital/tech employees

28% The percent employment rose in this sector between 2010 and 2016

4x How much faster the digital sector grew than the economy as a whole

1000 The number of new digital jobs the government wants to create by 2025

30% The number of net jobs growth in the sector has come from inward investment, since 2010

Jersey has a number of world class businesses and one of the highest rates of GVA per person in the world. Its digital sector has a number of key employers and the potential for diversification is strong. There are exciting opportunities to expand into other high tech areas and encourage new players to set up in Jersey.

If Digital Jersey is to achieve the Government's ambitions for the sector and increase its contribution to GVA by 50% over the next decade, then Jersey needs to create the right conditions for the digital sector to continue to thrive.

In the UK, the Government's Digital Strategy identifies that "government has a key role to play in supporting innovation and the commercialisation of ideas, and helping all digital businesses take advantage of opportunities for growth."

Amongst the initiatives it sets out is a goal to support and grow 'digital clusters'. This stems from evidence underpinning the strategy which showed that tech clusters are linked with innovation. Clusters form in two main ways: around large companies when they relocate e.g. Microsoft's move to Seattle, or to take advantage of local talent e.g. Silicon Fen in Cambridge. The same evidence identifies four crucial components in building a successful tech cluster. They are:

- Local leadership committed to digital growth and an existing digital community;
- Local infrastructure, including transport, broadband and property;
- Access to finance, both seed capital and growth capital; and finally,
- A talent pool.

CASE STUDY: BOURNEMOUTH AND POOLE - SILICON BEACH

Bournemouth and Poole - Silicon Beach: Bournemouth & Poole is one of the top 10 digital clusters in the UK for employment growth and has the third highest density of digital tech businesses in the UK. It has a number of creative companies, which act as hubs for local creative talent as well as major corporations, including Nationwide, Barclays and JP Morgan. Local universities are also seen as key and the 2016 Tech Nation report points to the supply of graduates from local universities and integrated marketing agencies for the creative sector as important drivers of Bournemouth's digital boom.

Like Jersey, Bournemouth boasts a high quality of life. It has co-working spaces such as 'by-the-sea' and the Factory Studios. The council is active in the tech community and Bournemouth Borough Council won Digital Council of the Year in 2015. In 2015, the area was identified as the UK's fastest growing digital economy and the latest 2017 report suggested that it now has the potential to be the UK's largest digital hub outside London.

ABOUT DIGITAL JERSEY

Digital Jersey is the representative body for the Digital industry in Jersey, Channel Island's. It was established in 2013 as the principal driver of government efforts to establish Jersey as an internationally recognisable centre for the digital industries. As a result, its primary aims are to foster growth in digital employment, increase the sector's local value and build brand awareness. Digital Jersey is already extremely active in the sector and the Digital Hub is at capacity. With ever increasing amounts happening there needs to be a new coordinating Education Officer role and the Centre of Excellence is the logical place to house this.

The members of Digital Jersey represent a broad cross-section of Jersey's economy, with interests spanning core digital sub-sectors including: FinTech, MedTech, enterprise architecture and telecommunications. These members extend from SMEs to Jersey's largest digital and even non-digital professional services businesses.

ABOUT THIS REPORT

This document was produced in partnership with the Marchmont Observatory, the research arm of the University of Exeter. This document is one of a trio of publications, the latter two explore industry demand for digital skills and the local pipeline of talent from compulsory, into further and higher education. The primary research undertaken in these publications underline the strategy outlined in this document.

As part of this qualitative and quantitative research, a proforma was distributed to education and training providers to capture information about the courses they run. Feedback from this proforma was complemented by official statistics on participation and attainment in digital related courses, provided by the States of Jersey Statistics Unit.

Statistical findings were supported by interviews with stakeholders in industry and education. The employers interviewed represented both the breadth and size of the sector with both micro businesses and major employers interviewed from tech product businesses e.g. IT platforms, software and telecommunications to enterprise solutions including fintech companies, cyber security and web developers. These interviews were conducted either through group discussions or in one to one interviews. Between them, those interviewed headed up businesses accounting for 40% of the digital sector workforce in Jersey.

ACKNOWLEDGEMENTS