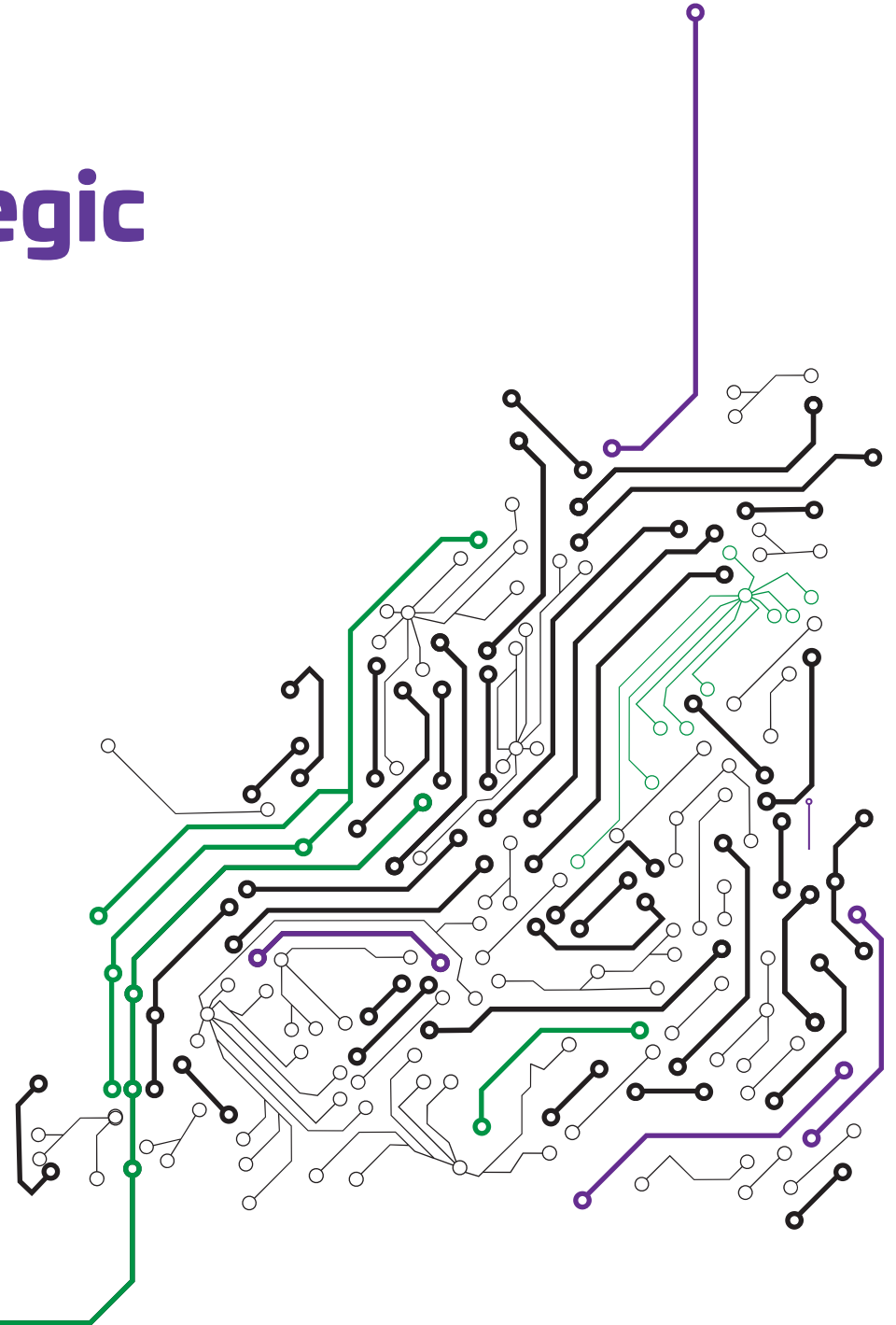


SMART Guernsey

The Digital Sector Strategic Framework

Driving economic growth by
investing in the digital sector



The Digital Sector Strategic Framework – at a glance

Vision Driving economic growth by investing in the digital sector to support existing businesses and strengthen the offer to new business opportunities

Aims

- Driving digital sector economic growth (current and new) & competitive advantage
- Delivering next generation digital infrastructure
- Developing the digitally skilled workforce of the future
- World leading and proportionate compliance and regulatory environment

Action plans

-  1. Targeting high-value digital industries
-  2. Government support to directly stimulate the digital economy
-  3. Creating a digital visionary government
-  4. Creating a best practice entrepreneurial environment
-  5. Establishing a flexible and world-class digital infrastructure
-  6. Developing best in class digital skills, education and training
-  7. Delivering responsive legislation and regulation
-  8. Creating a robust and successful data protection framework
-  9. Engendering a high quality cyber security environment
-  10. Developing Intellectual Property and a knowledge-based economy

Benefits

- Increased economic revenue in terms of tax take from sector growth and new job creation
- Increased customer satisfaction
- A wider diversity of job opportunities across all sectors
- Increased numbers of jobs created in the digital sector and indirectly in other supported sectors
- Improved resilience of infrastructure supporting all sectors
- Improved international reputation
- Improved competitiveness ratings

Introduction

The purpose of this document

This Digital Sector Strategic Framework document, (the 'framework'), sets out the strategic direction for the development of the digital economy over the next ten years that will support the Committee for Economic Development (the 'Committee'), in delivering its mandate.

This framework aligns with both the Policy and Resource Plan and the wider SMART Guernsey Strategy, as shown in Appendix 1, and has been developed in accordance with the high level analysis of other jurisdictions as shown in Appendix 2.

The framework provides the policy direction and prioritisation of strategic action plans over the next political term (and beyond) and will help inform overall the Committee's policy plans for the next five years, which are due to be debated by the States in June 2017.

Why the Digital Economy?

The 'Digital Economy' is a catch all term for the following sectors; IT support services, software engineers and developers, cyber security, artificial intelligence and automation, web developers, data centres, and data analytics, telecoms etc. The digital sector contributes to the Guernsey economy both in its own right and by supporting other sectors of the economy such as financial services, creative, e-gaming etc.

Over the last decade economies around the world have seen ever faster change from technological advances with both new ways of doing business and disruption to existing ways. Technology companies have replaced banks and oil companies as the world's most valuable. Within the EU the digital economy is growing at 12%¹, and in the UK investment in FinTech has been growing at over 50%². UK revenues from FinTech alone are estimated to be £20bn per annum. On average the Fortune 500 companies took 20 years to achieve a \$billion valuation however the top 100 digital start-ups with a combined valuation of c\$470billion, have achieved this in an average of three years (World Economic Forum 2016). More detail and an assessment of the Digital Economy in Guernsey is shown in Appendix 3.

The digital economy vision for Guernsey

By 2026, Guernsey aspires to be a leading innovative and entrepreneurial community, the location of choice for a diverse range of low footprint, high value, digital businesses, maximising economic growth and opportunity for the Island.

To achieve this vision the framework is subtitled 'Driving growth by investing in the digital sector to support existing businesses and strengthen the offer to new business opportunities'.

¹ Digital Agenda for Europe, European Union, 2014

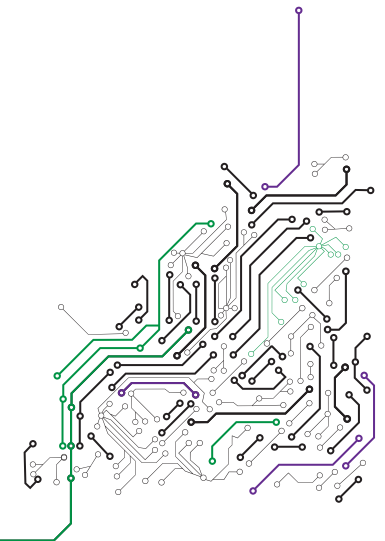
² A Strategic vision for FinTech, PWC for the States of Guernsey, 2015

The successful delivery of the framework will make Guernsey:

- The location of choice for high value, low impact digital businesses by leveraging off existing economic sectors, in particular the finance, creative and e-gaming industries; and
- A centre of excellence for future digital technology developing new and innovative businesses in all sectors including (but not limited to), FinTech; data storage and analytics; cyber security; R&D, institutional peer to peer lending, digital transactions (Blockchain) and wealth management platforms.

The Committee's four high level policy aims to deliver the framework are:

- Driving digital sector economic growth (current and new) & competitive advantage;



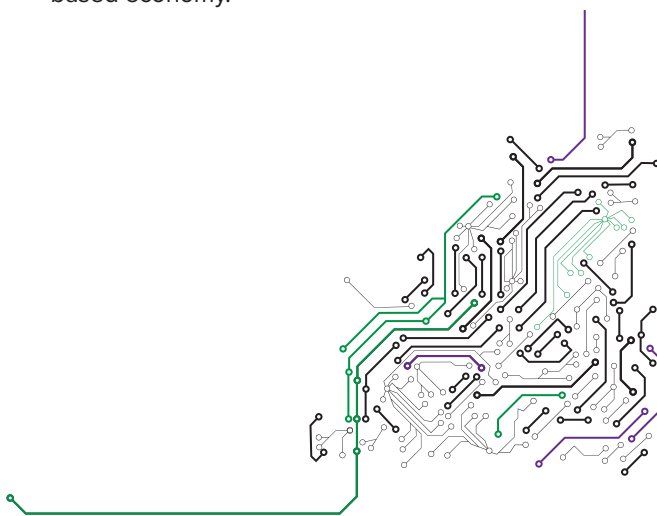
- Delivering next generation digital infrastructure;
- Developing the digitally skilled workforce of the future; and
- Having a world leading and proportionate compliance and regulatory environment.

In order to do this and to ensure that opportunities for Guernsey within the digital sector are maximised, the Committee, and other supporting Committees, will deliver ten strategic action plans focussed on:

1. Targeting high-value, low footprint, digital industries;
2. Direct government support to stimulate the digital economy (micro-economics);
3. Creating a digital visionary government;
4. Creating a best practice entrepreneurial environment;
5. Establishing a flexible and world-class digital infrastructure;
6. Developing best in class digital skills, education and training;
7. Delivering responsive and leading legislation and regulation;
8. Creating a robust and successful data protection framework; and
9. Engendering a high quality cyber security environment.
10. Developing Intellectual Property and a knowledge-based economy.

Through delivery of these action plans significant benefits will be realised across the Guernsey community. The expected high level benefits of this framework are;

- Increased economic revenue in terms of tax take from sector growth and new job creation;
- Increased customer satisfaction;
- A wider diversity of job opportunities across all sectors;
- Increased numbers of jobs created in the digital sector and indirectly in other supported sectors;
- Improved resilience of existing infrastructure supporting all sectors;
- Improved international reputation; and
- Improved competitiveness ratings.



The action plans

1. Targeting high-value digital industries



Current position

- We are Guernsey, Digital Guernsey, The Digital Greenhouse, Locate Guernsey and other entities operate largely independently and uncoordinated to promote Guernsey across existing and new sectors; and
- We have very successful business sectors that can be enhanced and expanded. Sectors include the finance, creative and e-gaming industries.



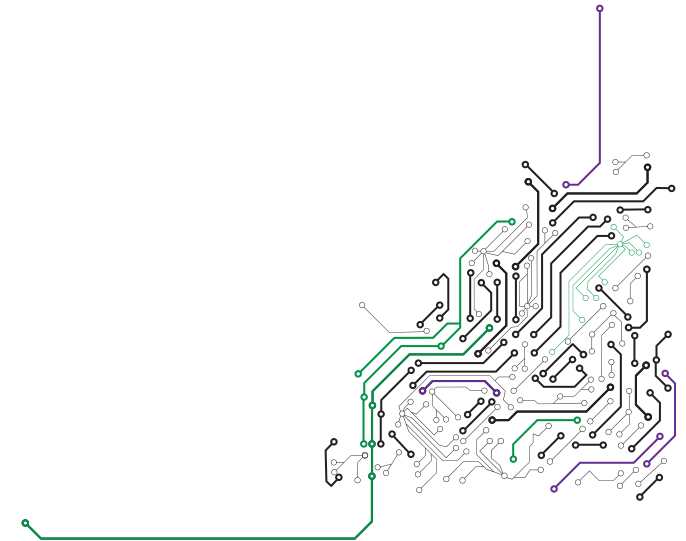
Desired position

- A coherent, comprehensive and coordinated plan to target high value industries across the existing and new sectors;
- Guernsey is the location of choice for those digital industries it has identified as providing the best opportunity for economic benefit to the Island; and
- Being a leading digital economy, Guernsey creates the conditions which attract future innovative digital businesses.
- Digital capabilities of all businesses across all sectors of the economy are maximised.
- Promotion of Guernsey as a digital jurisdiction with a recognised and respected international profile.

Metrics to measure success and realise benefits

- Complete (and action any outcomes of) a review of the mandates, governance and purposes of key promotional and other agencies and entities;
- Define expected Gross Value Added³ (GVA) increases;
- Define growth and diversity in employment in the digital sector; and
- Define number and types of businesses located on the Island.

³ GVA is the sum of wages paid to employees and profits made by companies and represents economic output.



2. Government support to directly stimulate the digital economy (micro-economics)



Current position

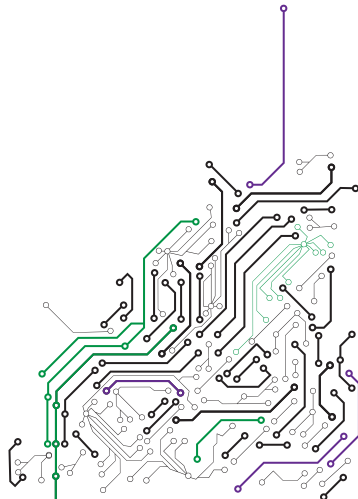
- Government IT systems and services are purchased ad hoc by different areas of responsibility, without any overall strategic purchasing plan.

Desired position

- The States of Guernsey recognise the opportunity, through its significant market power to fast-track Guernsey's digital development, by aligning strategy objectives with micro economic principles, to maximise the positive impact of its actions on local digital development and the wider economy;
- Government will regularly share and present with local and strategic digital partners the long term technology project pipeline, with meaningful data on each project and longer term aspirations. This includes the objective of generating innovative solutions through crowd sourcing the combined intellect of the digital industry;
- Government only delivers in-house digital systems that cannot be provided more efficiently by the private sector;
- Government uses its purchasing power to develop the local digital economy acting as required as an anchor client;
- Procurement policies to factor in long term positive local economic benefits of a proposition; and
- Digital Greenhouse to act as a hub for driving connections between business, government and the community.

Metrics to measure success and realise benefits

- Measurements that define IT services to Government that provide value for money to Tax Payers and meets the needs of internal and external customers;
- Cost reduction or service improvements based on any right sourcing of Government IT services to private sector;
- Suppliers developing specialist sector knowledge and present innovative solutions to serious government challenges. These solutions may (from a local supplier perspective) be exportable to the wider world on the back of the insight and home market development/ collaboration;
- Local digital service providers able to acquire and consolidate arrangements with partners in advance to ensure compliance with tender stage requirements; and
- Increase revenue from export of new indigenous digital solutions developed locally.



3. Creating a digital visionary government



Current position

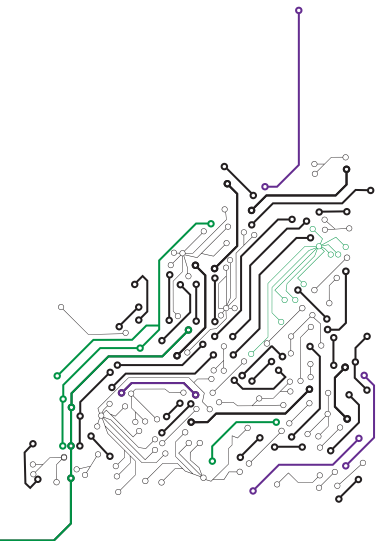
- Most services provided by the States of Guernsey are not available digitally.

Desired position

- Guernsey shows its commitment and desire to lead in the digital economy by investing in a fully digital government. This includes reducing operating expense through transformation of service delivery through automation, self-service and meeting developing customer expectations.

Metrics to measure success and realise benefits

- Metrics of Public Service Reform to measure Smart Guernsey delivering digital, joined up government; and
- Guernsey digitisation index to measure the success or failure of digital initiatives.



4. Creating a best practice entrepreneurial environment



Current position

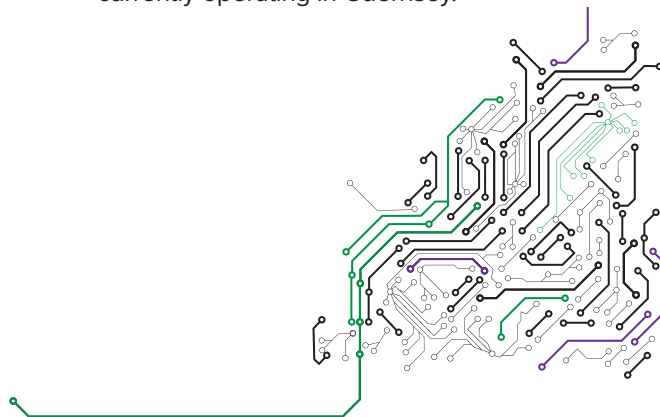
- The Digital Greenhouse is a resource for subsidised office space and runs and holds events and training to educate people about aspects of digital;
- Start-up Guernsey provide advice on starting a business in Guernsey as well as a panel of mentors to assist new businesses and holding events to inspire and educate local entrepreneurs;
- Digital Guernsey promotes Guernsey and builds relationships with the digital industry locally;
- The finance, creative and e-gaming industries have a presence in Guernsey;
- There is limited access to funding for early stage businesses;
- No formal incubators;
- Locate Guernsey attracting HNW's and businesses to Guernsey (know specific target sector for businesses);
- Limited relationships between private business and government; and digital business sectors currently operating in Guernsey.

Desired position

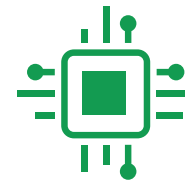
- Guernsey is the location of choice for those digital industries it has identified as providing the best opportunity for economic benefit to the Island;
- Be recognised internationally as a hot bed for start-ups and digital entrepreneurship;
- Known internationally as a test bed for new technologies;
- Strong working relationships, working collaboratively between corporates and government;
- The Digital Greenhouse is a centre and incubator for digital businesses, start-ups, networking, mentoring and related events;
- Start-up Guernsey, working through the Digital Greenhouse, helps to launch successful digital businesses;
- Start-up Guernsey provides grants and access to funding for start-ups and early stage business;
- Joined up branding and working model between Locate Guernsey, Guernsey Finance, Start-up Guernsey and the Digital Greenhouse; and
- Enabling existing businesses to increase their reach and efficiency with use of leading edge technology;

Metrics to measure success and realise benefits

- Increase in new digital businesses being set up;
- Increase in the number of new jobs created each year;
- Increase in the number of digital businesses with the potential for economic growth choosing Guernsey over competitor jurisdictions; and
- Growth in employment in the information and communication sectors, as an indirect measure of digital business development.



5. Establishing a flexible and world-class digital infrastructure



Current position

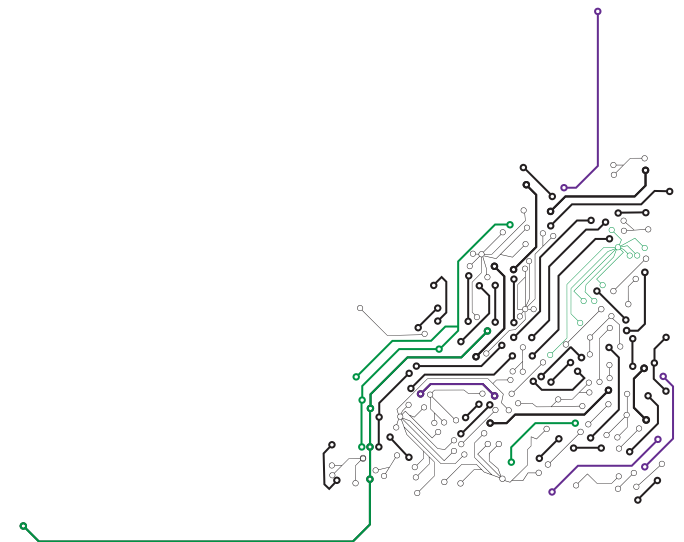
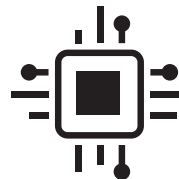
- Guernsey has a reliable infrastructure but super-fast broadband is not available to all and is perceived to be expensive (compared to competitor jurisdictions).

Desired position

- Guernsey has next generation digital infrastructure to meet the requirements of the community, the economy and reducing impact on the environment; and
- The cost, or perceived cost, is not a disincentive to develop and establish digital businesses.

Metrics to measure success and realise benefits

- All commercial premises have access to super-fast connectivity within 5 years;
- All members of the community have access to a defined level of connectivity within years (based on yet to be agreed Universal Service Obligation (USO)); and
- The cost, or perceived cost, of telecommunication continues to be competitive with similar jurisdictions.



6. Developing best in class digital skills, education and training



Current position

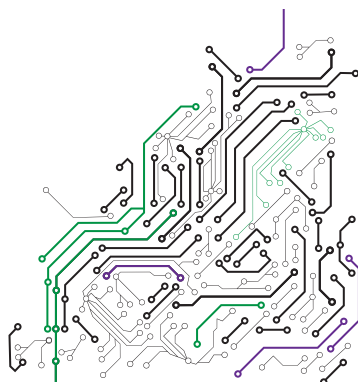
- Digital skills are recognised as essential for future development of the Island. Local business and the future generation of talent needs to be encouraged through education and awareness⁴;
- A new Digital Competence Framework for the core Guernsey Curriculum will be implemented September 2017;
- GCSE Computer Science is available across schools, however numbers remain small;
- Computer Science graduate numbers are low, (representing less than 3% of Guernsey graduates);
- There are a number of educational bodies working to deliver digital skills and a number of different industry programmes; and
- There is a current gap around specialist digital skills within the Island. 14% of Guernsey employers have experienced recruitment difficulties due to skill shortages. This compares with the 4% of employers reported by the UKCES Employer Skills Survey 2013⁵.

Desired position

- A digitally skilled & inclusive workforce is developed through clear and coordinated skills progression pathways;
- Future digital leaders for the Island are grown through a digitally enabled curriculum;
- An inspired future workforce through clear career pathways into digital;
- Informed, collaborative partnership approach between industry and education to develop and train new digital talent (creating tighter links between education and business is seen as a key success factor for digital transformation of the local economy⁶);
- Individuals with specialist digital skills are brought to the Island to fill talent shortages; and
- Increased skills using digital solutions by local entrepreneurs.

Metrics to measure success and realise benefits

- Business demand for skilled digital workforce is identified and can be met;
- The number employed in the digital sector increases;
- Guernsey education systems delivers the workforce needs of business. This should provide metrics based on the need for, and delivery of graduates, apprentices, specialist, generic and vocational skills (this includes retraining);
- In the interim prioritisation of Housing licenses for individuals with digital skills which are not available in Guernsey; and
- Graduate and post-graduate level qualifications could be offered with a focus on digital and cyber courses.



⁴ States of Guernsey: A Strategic Vision for FinTech, PWC, July 2016, available at <https://www.gov.gg/CHttpHandler.ashx?id=96797&p=0>

⁵ BMG Guernsey Employer Skills Survey 2014, available at <https://www.gov.gg/CHttpHandler.ashx?id=103527&p=0>

⁶ Blueprint for cities and regions as launch pads for digital transformation, European Commission, 2016 available at http://www.digitallytransformyourregion.eu/wp-content/uploads/2016/06/blueprint_brochure.pdf

7. Delivering responsive legislation and regulation



Current position

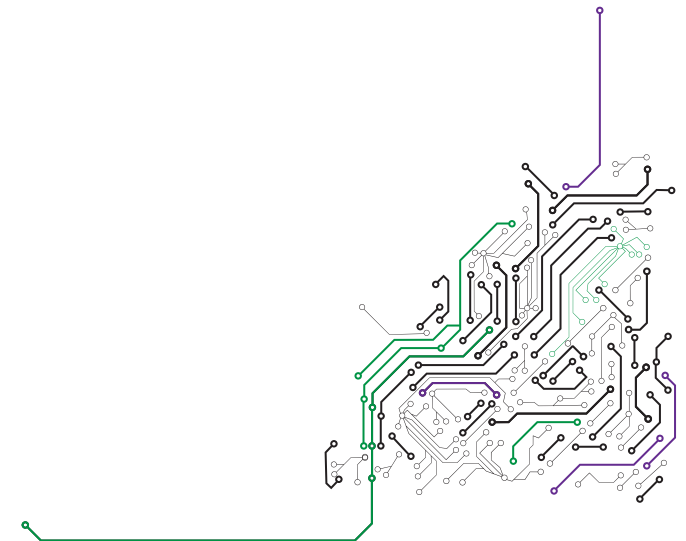
- Guernsey has a reputation for a responsive legislative and regulatory environment; and
- The Digital Guernsey public/private partnership group advises government on appropriate levels of legislation and regulation.

Desired position

- Guernsey's legislative and regulatory structures are seen as setting the standard for digital economies;
- Guernsey is pro-active in identifying and implementing legislative and regulatory advantages;
- Guernsey works collaboratively and openly with representatives from industry; and
- Legislation and regulation enable Guernsey to become the premier location for test-bedding technology.

Metrics to measure success and realise benefits

- Identification, prioritisation and enactment of new legislation and regulation to meet demands of new digital opportunities; and
- Guernsey is the location of choice for test-bedding new products.



8. Creating a successful data protection framework



Current position

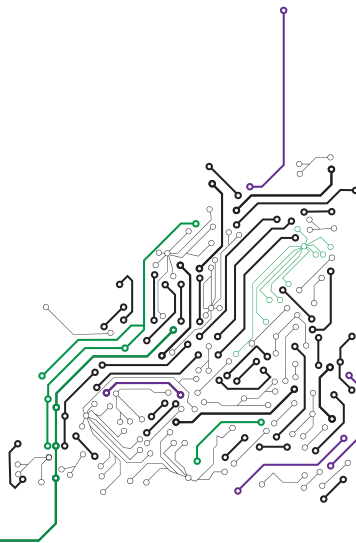
- Guernsey is able to determine its own data protection framework; and
- Guernsey can currently share data with EU countries as it is an equivalent jurisdiction.

Desired position

- Guernsey adopts an innovative approach to data protection creating opportunities for digital businesses;
- The data protection framework provides the optimum balance between privacy protection and economic development;
- Guernsey is an approved jurisdiction under the EU General Data Protection Regulation implemented in 2018; and
- Guernsey benefits from the net migration of services from external jurisdictions.

Metrics to measure success and realise benefits

- Guernsey continues to have EU Data Protection Adequacy Status; and
- The data protection regime provides the optimal balance between benefit and cost to the economy, whilst delivering growth from external businesses moving under Guernsey equivalence.



9. Engendering a high quality cyber security environment



Current position

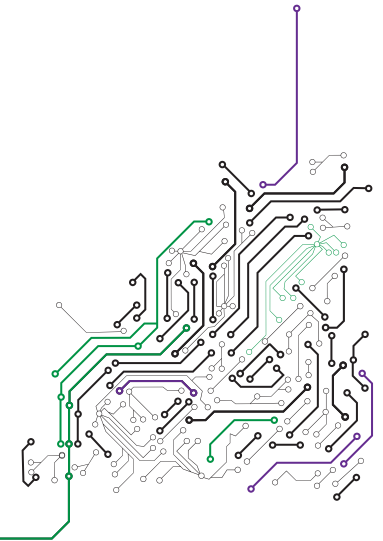
- The position is laid out in the Ascot Barclay cyber review of Guernsey commissioned by the States of Guernsey and carried out in 2015.

Desired position

- Guernsey has a world class cyber security infrastructure; and
- Guernsey's security is leveraged off its insularity.

Metrics to measure success and realise benefits

- The action points in the Ascot Barclay report are implemented by 2018;
- World leading centre for personal data and CDD record keeping; and
- Guernsey is internationally recognised as a jurisdiction with high standards of data security.



10. Developing Intellectual Property and a knowledge-based economy



Current position

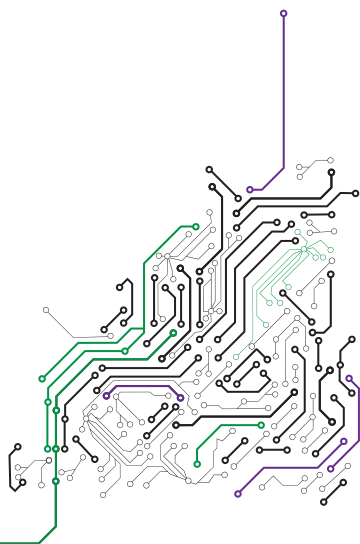
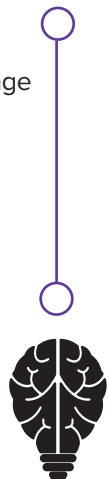
- Well developed legal and IP services sector;
- Developing and ground breaking IP (e.g. Image Rights)

Desired position

- Guernsey is able to develop and exploit IP services as an economic enabler to innovation
- Develop Guernsey as a knowledge based economy

Metrics to measure success and realise benefits

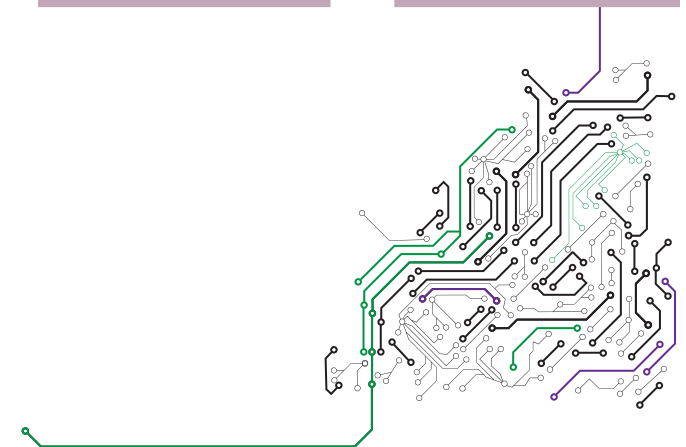
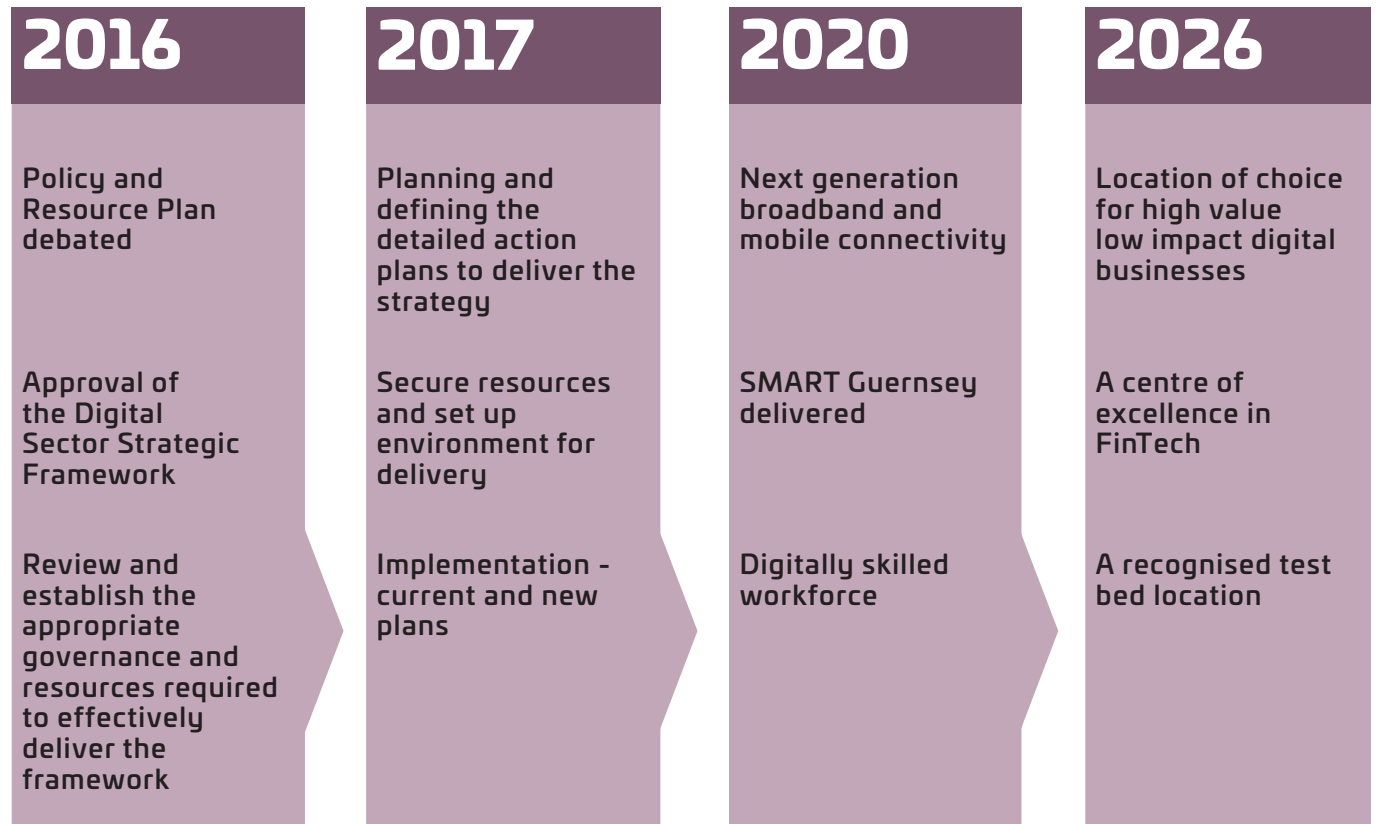
- Secure international agreements to internationalise the Bailiwick's IP environment - with particular reference to the Paris Agreement, the Madrid Protocol and Patent Co-ordination Treaty.
- Completion of legislation programme with particular reference to innovation patents and data rights.
- Extension of double-taxation agreements.



Outline time-line and next steps

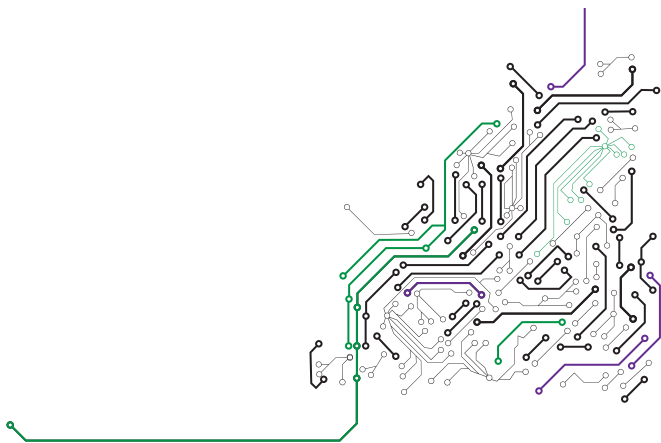
The diagram on the right summarises the outline time-line that this framework will continue to take the States of Guernsey and the local digital economy on to achieve the vision by 2026.

Some outcomes will be delivered much earlier than 2026 with the benefits being realised throughout the duration. It is important to note that several parts of the action plans are already being started and/or being progressed through other initiatives such as Public Sector Reform, SMART Guernsey and the new curriculum.



Key events and time-line

Event	Time
Engagement with stakeholders	<ul style="list-style-type: none">• August 2016 onwards
Assessment of existing work streams	<ul style="list-style-type: none">• August to December 2016
Presentation for approval of the draft framework to the Committee for Economic Development	<ul style="list-style-type: none">• September 2016
Development of detailed action plans and complete review of governance structures	<ul style="list-style-type: none">• October 2016 to June 2017
Presentation for approval of the action plans to the Committee for Economic Development	<ul style="list-style-type: none">• June 2017
Integration and prioritisation of the framework with other Committee policies to develop the integrated Committee plans	<ul style="list-style-type: none">• May 2017
Presentation to the States of Guernsey as part of the Committee for Economic Developments policy plans	<ul style="list-style-type: none">• June 2017
Annual update to the States – as part of the policy plan updates	<ul style="list-style-type: none">• Annually recurring from June 2017
Implementation (2016 - 2026)	<ul style="list-style-type: none">• 2016 to 2026



Appendix 1 – Linkages with the Policy & Resource Plan and other strategic initiatives

Introduction

The framework is coherent with, and aligned to, the proposed strategic direction for Guernsey outlined in the draft Policy and Resources plan and the SMART Guernsey Strategy. This alignment ensures a coherent approach across government, access to funding and resources, reduces risk of delivery and enhances the potential benefits. Details of the Policy and Resource plan and SMART Guernsey Strategy are not included but have been circulated separately. However, the relationships between the different strategic drivers and this framework are shown in the figure below.

The States' 20 year vision

The States' has set out a 20-year vision in phase 1 of the Policy and Resource plan approved by the States in

November 2016. The plan sets the strategic context for all of the Committee policy plans that will follow in June 2017. To help achieve the vision it is intended that all work streams should fall into at least one or more of the four theme areas identified in Our economy, Our quality of life, Our community and Our place in the world.

Public Service Reform and SMART Guernsey strategy

In September, 2015, (Billet d'Etats XVI), the States' endorsed the SMART Guernsey strategy, as part of the Public Service Reform agenda, with the aim of providing a digital government that supports the delivery of better public services. The vision for SMART Guernsey is to move beyond the efficient running of public services and government. It is to future proof the Island ensuring Guernsey – government, community, individuals and business – can take full advantage of modern technology. Technology is moving so quickly that any competitive jurisdiction has to keep ahead of the curve, not just catch up and remain with the pack. In the context of the framework the critical element is the enabling of business to thrive and grow. Whether through reducing red tape by streamlining government services, ensuring we remain connected to the digital world or retaining our Data Adequacy status to allow us to trade data into the EU successful delivery, the digital strategy underpins the continued economic success of Guernsey.

The SMART Guernsey strategy's main benefits are:











- Driving growth by supporting existing business sectors, strengthening Guernsey's offer to new businesses and developing new digital industries.
- Increasing efficiency of public services by improving access to and use of data and technology to deliver efficient public services while streamlining the public sector
- Ensuring islanders, businesses and government can realise the potential of the digital society whilst remaining safe and secure in the digital world.
- Developing future digital connectivity and infrastructure ensuring Guernsey remains linked to the world including fast broadband and mobile networks.

The Committee for Education, Sport & Culture

The Committee for Education, Sport & Culture are undertaking a review and development of the curriculum for Guernsey, with a strong focus on digital skills. In addition, workstreams looking at the technology infrastructure and landscape within educational institutions is placing greater emphasis on digital instruction. Moving forward, this Framework aligns with work being undertaken on developing both the digital skills of Islanders and the awareness and promotion of career pathways in digital industries.

Strategic aims							
P&R Plan	Our Economy					Our place in the world	
P&R Plan	Strong, sustainable and growing	Sustainable public finances	World class digital connectivity	Skilled workforce	Full and meaningful employment	Centre of excellence and innovation	Meet international standards to ensure access to markets
Committee for Economic Development	Wealth generation			Job creation		Diverse opportunities	
	Strategic Framework for Economic Development / CfED Policy Plan						
SMART Guernsey	Economic development			Delivering Public Service Reform		Building a digital society	

The Digital Sector Strategic Framework

Vision	Driving economic growth by investing in the digital sector to support existing businesses and strengthen the offer to new business opportunities									
Aims	Driving digital sector economic growth (current and new) & competitive advantage			Delivering next generation digital infrastructure	Developing the digitally skilled workforce of the future	World leading and proportionate compliance and regulatory environment				
Action Plans	 1. Targeting high-value digital industries	 2. Government support to directly stimulate the digital economy	 3. Creating a digital visionary government	 4. Creating a best practice entrepreneurial environment	 5. Establishing a flexible and world-class digital infrastructure	 6. Developing best in class digital skills, education and training	 7. Delivering responsive legislation and regulation	 8. Creating a robust and successful data protection framework	 9. Engendering a high quality cyber security environment	 10. Developing Intellectual Property and a knowledge-based economy

Appendix 2 – High level analysis

Introduction

Based on the strategic direction and analysis such as the draft Policy and Resources plan and SMART Guernsey, previous Committee work (such as the PwC FinTech report), academia and business analysis this appendix provides a summary of the key points that were developed into the strategic policy aims, action plans and benefits included in this framework.

Where are we now?

The current Guernsey digital position in 2016 is summarized in Table 1 to the right:

Table 1: Guernsey’s Digital Economy – current situation – SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Highly developed finance sector • Gaming industry already established • Innovative creative sector • Entrepreneurial culture • Mobile and motivated Government • High number of HNWs per population 	<ul style="list-style-type: none"> • No tax incentives for investors to invest • No grants for early stage businesses • Limited resources • Ability to maintain infrastructure investments due to scale • High cost of living • Lack of digital skills • Structure of digital entrepreneurship • Perception of restrictions for housing licenses
Opportunities	Threats
<ul style="list-style-type: none"> • Ability to leap technology stages to be at the cutting edge • Self-contained, self-governed means ideal as a test-bed • Digital economy • High number of local successful entrepreneurs • Investment in digital sector • Partnership with low cost jurisdiction 	<ul style="list-style-type: none"> • Digital economy not yet a priority for government or business • Other jurisdictions already targeting digital • Loans and grants already offered elsewhere • Finance sector undermined by disruption

Table 2: Digital support service businesses – SWOT analysis

Strengths		Weaknesses	
<ul style="list-style-type: none"> Established sector with healthy competition Globally recognised in certain sectors; e-gaming, e-commerce Macro cyber security controls in place Choice of cloud services platforms Well positioned in terms of global telecommunications infrastructure Stable political backdrop Plenty of available capacity in hosting, power and communications 	<ul style="list-style-type: none"> Volume of skilled workers Natural resources, particularly space and power present a cap to very large scale growth Costs; housing, power, communications, office rental etc. Lack of diversity in client base; mainly e-gaming and traditional financial services clients 		
Opportunities		Threats	
<ul style="list-style-type: none"> Education – particularly post 16 Alignment with IT global provider (HPE, IBM etc.) to provide global services from Guernsey e.g. Microsoft Malta Potential to reduce costs in many areas through scale; e.g. communications costs for very large users very close to that of onshore jurisdictions Diversification of client base; hedge funds, financial spread betting services 	<ul style="list-style-type: none"> Cyber security landscape constantly moving External regulatory factors; Brexit, EU state requirements to host e-gambling services within borders, increasing regulation in financial services sector Scale of infrastructure investments required to maintain competitiveness 		
Target areas			
<ul style="list-style-type: none"> Innovation in infrastructure investment Government services enabling the digital economy (the industrial strategy) 	<ul style="list-style-type: none"> Increase skilled workforce through targeted licensing and improved post 16 education opportunities 		

Target digital industry sectors

In general there are three groups of digital businesses we need on Guernsey. These are:

- Digital support service businesses;
- Digital businesses that further develop the offering of existing business sectors; and
- Digital businesses that deliver new business sectors.

A SWOT analysis of each of these groups of businesses is shown in Tables 2, 3 and 4.

Digital support service businesses

These primarily provide line of business offering required by all modern businesses. This includes (but is not limited to) businesses that provide hardware, data storage, platforms, security, and applications.

Digital businesses that further develop the offering of existing business sectors

Guernsey has numerous existing business sectors such as finance and e-gaming. These businesses provide new or enhanced services to these existing sectors. This includes (but is not limited to) FinTech.

Table 3: Digital businesses that further develop existing sectors – SWOT analysis

Strengths		Weaknesses	
<ul style="list-style-type: none"> • Very well established in financial services and e-gaming sectors • Ability to be flexible and agile with laws and regulations – ideal test bed • No Capital Gains Tax and VAT on Capital Expenditure • Access to capital • Data Sovereignty; EU Data Protection adequacy in place • Progressive Intellectual Property legislation • Island wide cyber protection; world leading Distributed Denial of Service infrastructure available over multiple submarine cable systems • Lifestyle and community 		<ul style="list-style-type: none"> • Scale in terms of available resources to accommodate very large business opportunities • Skills; particularly in innovation, data science and high end technology • Regulation; specifically in clarity around FinTech activity and AML • Diversity of economic activity outside of financial services and e-gaming • Digital maturity of existing financial services sector • Promotion; external parties and prospects need to be given a clear and consistent view of Guernsey PLC through all touch points both commercial and Government 	
Opportunities		Threats	
<ul style="list-style-type: none"> • To become a trusted location for storing and manipulating data • Develop institutional and business peer to peer platforms • Target corporate treasury functions, create a walled garden for the operation of foreign exchange and payments • Promote the development of wealth management platforms providing online consumer portals to access investment funds and products • Enhance services for financial services and e-gaming sector; managed and cloud based services 		<ul style="list-style-type: none"> • External regulatory pressure both in financial services sector and e-gaming • Disruptive technology in financial services sector; blockchain, P2P, both areas of targeted growth that could impact traditional sectors of the economy • EU GDPR adequacy is not granted • Speed to market 	
Target areas			
<ul style="list-style-type: none"> • Innovation in EU GDPR, adequacy is mandatory, Guernsey to strive for a USP over other jurisdictions • Gaming; expand on success in e-gaming to social gaming and traditional game production and distribution. 		<ul style="list-style-type: none"> • Block chain technology; potential of this technology in regulation framework and Government services in particular • Other FinTech capability such as peer-to-peer lending and disruptive technologies 	

Table 4: Digital businesses that deliver new business sectors – SWOT analysis

Strengths		Weaknesses	
<ul style="list-style-type: none"> • Demonstrated ability to innovate in regulation/legislation • Existing legislation is forward looking e.g. The Electronic Transactions (Guernsey) Law, 2000 allows for the use of block chain smart contracts. • Ease of assembling resources to start a business; Corporate Services Providers, legal and tax advice, access to Government, regulators and commercial service providers all readily available. • Well developed legal and IP services sector. 	<ul style="list-style-type: none"> • Marketing and sales resources required for targeting off-island opportunities • Volume of skilled resources available • Housing licence application process difficult and time consuming • Focus in evaluating sectors for development and delivering a consistent view • Possibly late to market in some areas compared to competing jurisdictions • Lack of international agreements and double taxation agreements to enable the full commercialisation of IP rights. 	<ul style="list-style-type: none"> • Development of public/private business development group • Build on potential new Data Protection legislation • Expand Intellectual Property Legislation to cover intellectual property derived from big data • Trade on potential fiscal advantages of launching new products and services through a Guernsey based company • New international environment. 	<ul style="list-style-type: none"> • Other jurisdictions both onshore and offshore compete more effectively • Changes in regulation outside of Guernsey, other external factors; Brexit, EU relationships • Tax breaks available elsewhere
Opportunities		Threats	
Target areas			
<ul style="list-style-type: none"> • Big Data Analytics • Digital Intellectual Property • High Value data • Transnational secure data sets (shipping containers etc.) 	<ul style="list-style-type: none"> • Pharmaceutical Companies • Vehicle telematics • Cyber security firms • High value data storage 		

Digital businesses that deliver new business sectors

Levering Guernsey’s digital (and other USPs) to attract new businesses.

Appendix 3 – Why the Digital Economy?

The digital economy is a catch all term for the following sectors; IT support services, software developers, web developers, data centres and telecoms operators. The digital sector contributes to the Guernsey economy both in its own right and by supporting other sectors of the economy such as financial services.

Over the last decade economies around the world have seen ever faster change from technological advances with both new ways of doing business and disruption to existing ways. Technology companies have replaced banks and oil companies as the world’s most valuable. Within the EU the digital economy is growing at 12%⁷, and in the UK investment in FinTech has been growing at over 50%⁸. UK revenues from FinTech alone are estimated to be £20bn per annum.

Some of the growth of digital businesses has come at the expense of traditional businesses, for example online banking replacing bank branches, but much is new. Over 80% of FinTech aspires to innovate with new ways of doing things rather than to disrupt⁹.

⁷ Digital Agenda for Europe, European Union, 2014

⁸ A Strategic vision for FinTech, PWC for the States of Guernsey, 2015

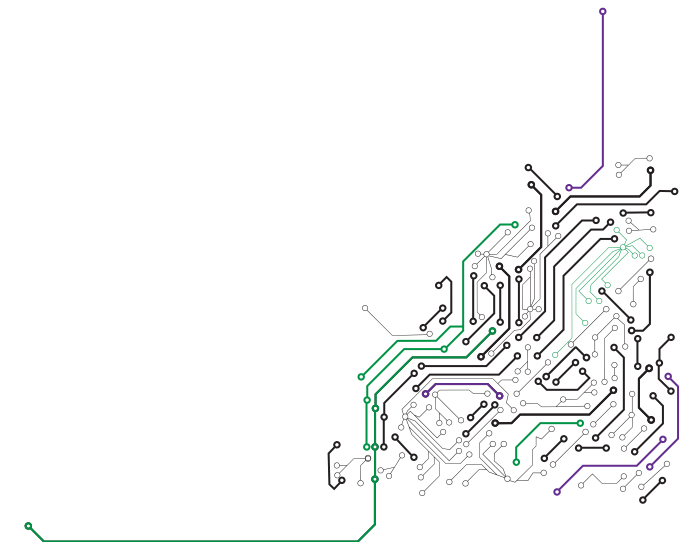
⁹ FinTechs can help incumbents, not just disrupt them, McKinsey&Company, 2016

As an internationally active economy Guernsey is challenged by the new digital landscape: the finance sector is the largest single contributor to the economy but is also particularly vulnerable to disruption from new technology. But the change also brings opportunities and Guernsey is well placed to seize those. Guernsey’s internationally respected legal and regulatory framework, together with a finance industry with a record of innovation and an established e-gaming sector provide a strong basis for growth of the digital economy.

Valuing the size of the digital economy is challenging because it is integral to other parts of the economy, for instance financial services. An approximation to the value added can be made by considering the information and communication technology, the ‘ICT sector’; its growth is an indicator that the sectors that it services are also growing.

Since 2013, there has generally been an annual increase in the numbers of people employed, (excluding 2013) including self-employed individuals, in the information and communication technology sector as shown in the table below;

Year	2011	2012	2013	2014	2015
Total employment	1021	1051	953	969	1012
Year on year % growth in total employment		3%	-9%	2%	4%



Return on Investment

The Information Services sector in Guernsey employed just over one thousand people in 2015 and it is hoped that this will increase to between three and five thousand by 2026, with the median salary increasing towards that of the finance sector.

As an indication only, if this happens the potential increase in value to the economy and government revenues from employment income alone will be:

	2015	2026 (at 2015 prices)	Change
Employment	1,000	3,000	+2,000
Median salary	£35,750	£42,770	+£7,020
Gross value added in employment income	£36m	£128m	£92m
Tax paid (estimated at 15% taking into account tax allowances)	£5.4m	£19.2m	£13.8m

Note that these are solely the primary benefits accruing to the economy through employment income and are annual income figures. The increase of £13.8m represents approximately 5% of 2014 income tax revenue.

An indication of the current size of the sector and its rank in terms of GDP output contribution (as measured in 2015) is given in the Table 5. The table shows that in 2015, the Information Services sector is currently third in terms of GDP output in the key sectors illustrated, but employs less

Table 5: Current size of Digital Sector and comparison to other sectors

Key economic sectors	Rank in terms of economic output	2015			2014
		GDP contribution (2015) % of GDP	Output (£m)	Employment (March 2015)	Median Earnings (2014)
Finance	1	32.4	763	6,731	£42,770
Business services (including legal and intellectual property)	2	14.0	329	3,316	£32,425
Information Services	3	10.2	240	1,012	£35,750
Construction	4	5.0	119	2,900	£30,940
Retail	5	5.0	118	3,982	£22,360
Manufacturing	6	1.9	44	677	£26,260
Horticulture	7	0.3	7	403	£26,650

than a third of the numbers in the second ranked sector (Business Services).

If employment numbers are increased to above 3,000, then pro-rata to output this would triple the size of the sector, and all things being equal, therefore put GDP output at over £700m such that the sector would rank second to Finance.

Taking into account secondary benefits in terms of indirect and induced spending in the economy (on retail, construction, supplies and services, transport etc.) this would increase the value of the sector still further.

The figures do not take into account the value added benefits of digital transformation in other sectors of the economy and the potential savings that could accrue to

the public sector through increased use of digital services.

An estimate would be that net government revenue could increase by as much as £20m a year compared to the current position, thus representing a very positive return on investment when taken over a 5 to 10 year period.

These figures do rely upon some assumptions, but are indicative of the rewards that could be gained in increased economic output with suitable investment. A detailed examination of the value to be accrued from the sectors targeted in the strategy will form part of the future work to be undertaken under the framework.

It should also be noted that these figures do not include any value added to the creative or financial services sector from FinTech and other digital products. Equally, the information and communications sector includes non-digital sectors such as television and radio broadcasting and publishing books, magazines and papers; film, video, TV programme, recording and music publishing.

Appendix 4 – What are other jurisdictions doing?

The UK commenced its eGovernment programme in 2010 and it is part of the Civil Service Reform Plan. The intent was to make savings of £1.7-£1.8 Billion per year; which has been largely delivered. In the 2016 Queen's Speech the Conservative Government introduced a Digital Economy Bill to: enable the building of world-class digital infrastructure including fast broadband and mobile networks; support new digital industries; reform the way government uses data to deliver public services; strengthen protections for citizens in the digital world; and deliver the manifesto pledge to roll out universal broadband and better mobile phone connections, to ensure everyone is part of the digital economy.

The States of Jersey published their Draft Digital Policy Framework on 10 June 2016. Developed from the States of Jersey Strategic Plan 2015-18 the Digital Policy Framework is 'designed to support these objectives, and create a conversation about government strategy for all things 'digital', in order to develop and publish a clear Digital Policy Framework for Jersey in autumn 2016. It is the first time that government has brought all of its digital ambitions together in one place, and it impacts on all parts of our government, economy and society.

The draft strategic goals are to:

- Provide digital skills for all Islanders;
- Provide a resilient digital infrastructure;
- Enable a diverse and innovative digital economy;
- Build a favourable environment for emerging technologies and
- A responsive regulatory environment;
- Build a robust cyber security framework and a secure e
- ffective data protection framework.

The Jersey Innovation Fund has been in existence since 2013 and supports new business ideas, products or services financially through loans and business support.

The Isle of Man published its formal strategy in 2015 and created its Enterprise Development Scheme that same year. The strategy supports the Isle of Man government's Vision2020 strategy by considering how best to use digital technology to improve the island's government.

In short, the majority of governments are investing heavily in digital and the digital economy and several of our closest comparator jurisdictions currently offer ways to support new and emerging businesses that includes those in the digital sectors. To remain competitive Guernsey will need to ensure that there is efficient running of public services and government and that the island is future proofed. To do this it will need to capitalise on the opportunities that the digital sector offers, working within the financial constraints and in a strategic, evidenced and targeted way. This will ensure that the greatest return on investment and value achieved for the island.

