

## Digital health economy in Scotland

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## **Digital health economy in Scotland**

Sanna Rimpiläinen (July 2016)

This document has been created by two differently set tasks: one by Chal on free key word searching loosely around the topic of economic impact of eHealth for Scotland. The latter part focusses on quotes from various policy documents listed by Justene. Unfortunately I wasn't able to locate all highlighted documents from the emailed list. Some of the strategies were duplicates by different names. Or perhaps the names had changed over time. I searched some other listed strategies instead. I have highlighted bits that I have thought more useful. Hope this helps with creating your document. Given the shortness of time I have not really digested and condensed the information as much as just dumped quotes into a list.

**Ref for the following section: [Scottish development international](#)**

### **Talent and skills**

As well as almost 200,000 health staff and a similar number of social care staff Scotland has:

- Over 73,000 people currently working in digital technology.
- More than 7,000 people working within the digital health and care technology companies.
- An industry supplemented annually by 70,000 graduates and a pipeline of 17,000 graduates with digital health expertise.
- The University of Edinburgh is home to a dedicated Digital Health Doctoral Training Centre
- The latest EY Scotland Attractiveness Survey reveals Scotland as the top-performing FDI region outside London. In 2015, Scotland achieved its greatest number of FDI projects, with a phenomenal growth rate of 51%

**Ref for the following section: [SDI - Record success in inward investment in scotland](#)**

- 2015 was a record-breaking year for Foreign Direct Investment (FDI) in Scotland, according to the latest EY Scotland Attractiveness Survey.

- Scotland retained its position as the top UK location outside London for FDI, with a record level of investment. Projects were up by 51% and job creation up 52%.
- Notable growth sectors last year included software, the top performing industry, with a 170% increase. Life sciences and financial services also recorded significant activity.
- The top five countries making those record investments in Scotland in 2015 were the US, France, Germany, Norway and Canada.
- Commenting on the survey, Paul Lewis, Managing Director of Scottish Development International (SDI), said: “This is a tremendous achievement for Scotland in what continues to be a challenging and highly-competitive inward investment market.”
- Impressively, Scotland’s share of FDI projects within the UK is increasing. In 2015, it won 11.2% of all FDI projects into the UK, up from 5.9% in 2005, ensuring that Scotland has surged past the South East to claim second place behind London.
- Scotland also secured projects in three top-10 cities in the UK, with Edinburgh, Glasgow and Aberdeen featuring. Edinburgh almost trebled the number of FDI projects, whilst Glasgow's more than doubled.

**Ref for the following section: [\(UK Govt Speech 2014 Digital health: transforming healthcare service delivery\)](#)**

- We are proud of the UK’s record in discovery, invention and delivery and that we are home to 3 of the top 4 universities globally for health, clinical and pre-clinical studies.
- Digital health has some surprisingly simple and elegant applications that can be real drivers of improvements in how healthcare is delivered.
- A great example of the potential of digital health was revealed within the headline findings from the recent Whole System Demonstrator (WSD) programme. These findings indicated that telehealth – if used correctly – could deliver amongst other things a 20% reduction in emergency admissions and a 45% reduction in mortality rates.

- Other studies have revealed how electronic prescriptions reduce total prescription error rates by 60%. There is a wealth of other examples of how the delivery of care is being transformed through digital health.
- The Royal National Orthopaedic Hospital has trialled a system where spinal surgery patients recorded post-operative progress on an iPad in hospital and from home. It is thought that this created the capacity for 300 new outpatient appointments per consultant surgeon annually.
- Here in Scotland, NHS Greater Glasgow and Clyde's clinical portal has some 10,000 healthcare professionals using the system, to nearly eliminate the need to request paper case notes when seeing emergency patients.
- Our government has set out a vision for the NHS to go paperless by 2018, and for staff to share data more effectively. By March 2015, patients will be able to access their GP record online, book appointments and order repeat prescriptions.
- In British Columbia, thoracic surgeons are providing telehealth-based care for 30% of their patients resulting in consultations with more than 8,000 patients in 1,700 clinics, saving 6 million kilometers of patient travel.
- Launched by students at the University of Melbourne, a smartphone stethoscope allows lay users to detect, alert and advise those with childhood pneumonia, with the potential to save up to millions of lives a year worldwide.

**Ref for the following section:** [\(Right mix for digital H&C for Scotland\)](#)

### **Scotland has the talent for digital health companies**

None of this could happen without the talented people to write the code, test the products, and develop the software that changes lives. Alongside the 200,000 health staff in Scotland, there are 73,000 people who currently work in digital technology – and around 7,000 people working in digital health and care companies.

Businesses looking for fresh talent have plenty of graduates to choose from. In 2014, Scotland's universities produced nearly 20,000 graduates and post graduates in medicine and healthcare related

subjects (HESA, May 2016). More specifically, the University of Edinburgh is home to a dedicated Digital Health Doctoral Training Centre.

That's just one of the reasons that Scotland attracts big global players. "We set up in Glasgow because that's where the talent is," says Nick Willox, Regional Lead for Orion Health, a health-specific software company based in New Zealand. "Recruiting here has been very rewarding. The west of Scotland is a rich hunting ground for staff with clinical expertise, project management, and support staff."

**Ref for the following section:** [\(David Champeaux: Effective digital HC needs to be consumer friendly 29 July 2015\)](#)

- A [2015 Doctors Survey by Accenture](#) indicates that while English doctors remain positive about digital health solutions, satisfaction has levelled out, with negligible increases in some areas.
- Users – both doctors and patients – are hungry for solutions that are as elegant and intuitive as online services like Spotify or Uber. Instead, what they tend to get from the healthcare industry is more akin to an internal time and expense sheet. They also want digital health platforms that go beyond transactions, and enable intelligent clinical decision making processes and real collaboration among clinicians, and between clinicians and patients.
- Currently, digital health systems do little to analyse data and add value to clinicians, or allow patients to engage with their own care plans by means of a patient communication and collaboration platforms. This is the heart of the problem: health technology solutions have typically digitised existing processes rather than giving expression to thoughtfully considered new models of care enablement, decision support and patient engagement strategies.
- To break through the plateau in adoption and benefit realisation in Digital Health, clinicians must lead a service-design approach for the development of solution platforms which truly empower people in health and care delivery across the health and social care system.

**Might be of interest otherwise: 9 Design and innovation trends 2015**

<https://www.accenture.com/il-en/insight-trends-service-design-fjord>

**Ref for the following section:** [\(A UK industry study on digital health by the UK govt\)](#)

The UK is well positioned in many elements of digital health and has the potential to grow into a global leader in this segment. However, there are barriers to be overcome to realise this potential. To assess the current market, growth potential, industry composition and the UK's competitive position, we conducted a detailed examination of the

digital health market in four sub-segments:

- Telehealthcare (telecare and telehealth): support and assistance provided at a distance using ICT and the remote exchange of clinical data between a patient and their clinician
- mHealth: mobile phone applications relating to health and/or wellbeing and connected wearable devices
- Health analytics: software solutions and analytical capabilities needed to assimilate big data
- Digitised health systems: digital health information storage and exchange of digitised patient medical records.

Telehealthcare:

Telecare, which provides care and support at a distance using ICT, is a mature market in the UK with a strong heritage and the highest penetration per capita in the over 65s category of any global market. The strength of the UK market and global position is in part due to the UK being an early adopter, having had large central government programmes for telecare and a strong existing base of hardware. The telecare market is established and not expected to grow rapidly.

mHealth:

mHealth, which can be defined as health-related mobile applications (apps) and health-related wearable devices, is an emerging market and is still small and fragmented. However, the mHealth apps sub-sector is growing rapidly, and is predicted to be the fastest growing segment in digital health, with a 2014 to 2018 CAGR of c. 35% in the UK and c. 49% globally. There is a high consumer demand for mHealth apps, but monetising them is difficult due to a lack of clear reimbursement models, particularly in the NHS. This is not just a challenge in the UK; a recent European Commission review of mHealth highlighted that this is also true across Europe.

The health apps market is segmenting and two different groups have emerged. One group handles low-confidentiality data (personal wellness and activity data); this is usually a consumer-driven purchase and strong consumer interest has attracted multiple companies into the space. The second group manages medium to high confidentiality data (health data and personal medical records); these are used by clinicians, patients or hospital

system reporting. mHealth solutions in the second group offer the greatest potential to improve healthcare outcomes, but present challenges until we further improve access to data.

#### Analytics:

There is great potential for health analytics in the UK; however, challenges around data access need to be overcome in order to maximise the benefits and grow the industry.

Health analytics is an emergent and fast growing digital health sector. The market is currently still relatively immature but expected to grow rapidly, c. 24% up to 2018. This growth could be exploited by UK industry to become a world leader in this sector, but there are barriers to overcome, such as development of relevant skills and capabilities, data

access challenges and information governance issues.

#### Digital health systems:

Large, North American companies dominate globally, but established local EHR providers may be able to leverage their track record in primary care to capitalise on the expected growth in secondary and acute care settings in the UK. The largest (and slowest growing) of the four sectors in the UK is digital health systems, including electronic health records (EHR) and e-prescribing, with a total current market size of £1.3 billion. The UK is a frontrunner in the use of primary care electronic health records due to early government initiatives to support system uptake. Acute hospitals have lagged behind and have been the focus of some recent government initiatives. Incentivising the use of EHR platforms and investing in interoperability will help the market reach its potential. The systems need to be able to

move healthcare data securely across organisational boundaries, store highly confidential data safely, link data sets together and deliver consistent analytical methodologies that support clinical decision making. These actions are fundamental to improve the quality and efficiency of health care while

maintaining patient confidentiality. Whilst the UK was an early adopter of health information technology systems and has a strong position in primary care (e.g. EMIS), the major players in secondary care IT are mainly US based companies

[Policy search:](#)

**Ref for the following section: ([eHealth Strategy 2014-2017](#))**

The eHealth Vision - The Refreshed eHealth strategy 2014-2017

By 2020 eHealth in Scotland will:

- Enable information sharing and communications that facilitate integrated health and social care across all settings from the patient's home to the hospital.
- Provide information processing, analysis and intelligence that supports and complements the work of health and social care professionals and improves the safety and quality of care.
- Support people to manage their own health and wellbeing and live longer, healthier lives at home or in a community setting.
- Contribute to a partnership between the Scottish Government, NHSScotland, the research sector and industry to enable Scotland to be a long term leader in digitally enabled care.

### **The eHealth Aims**

A set of six eHealth Aims were developed as part of the 2011 eHealth Strategy. These remain appropriate for the next period of eHealth development and, together with a seventh aim specifically in relation to innovation, are consistent with the 2020 Vision.

1. To enhance the availability of appropriate information for healthcare workers and the tools to use and communicate that information effectively to improve quality.
2. To support people to communicate with NHSScotland, manage their own health and wellbeing, and to become more active participants in the care and services they receive.
3. To contribute to care integration and to support people with long term conditions.
4. To improve the safety of people taking medicines and their



effective use.

5. To provide clinical and other managers across the health and social care spectrum with the timely management information they need to inform their decisions on service quality, performance and delivery.

6. To maximise efficient working practices, minimise wasteful variation, bring about measurable savings and ensure value for money.

7. To contribute to innovation occurring through the Health Innovation Partnerships, the research community and suppliers, including the small and medium enterprise (SME) sector.

Citizens and Patients, in addition to their face-to-face care will be able to:

- use a patient portal to access their own Personal Health Record and make their own contributions to the record;
- have structured access to information about prevention, managing their health and the availability of relevant health services, and a route to access peer and community support
- order repeat prescriptions and book appointments online and use secure two way electronic communication with their health and social care providers to receive information, make enquiries and track their care arrangements
- access a portfolio of proven technology enabled solutions, such as home health monitoring, tailored to match individual patient's condition(s) and circumstances. This will enable them to undertake a much larger role in managing their own health care.

Clinicians, Social Care Staff and other third sector partners will be able to:

- quickly access at the point of care an Electronic Patient Record that provides the information that they need to make their contribution to the patient's care within the context of the wider health and social care team;
- electronically record their findings, and share these with the rest of the care team, and quickly and easily initiate care processes, such as investigations, referrals, and treatments, and generate clinical correspondence.
- Workflow will co-ordinate the inputs of other staff and monitor the patient's progress;

- have quick and easy access to increasing amounts of clinical guidance and decision support that is relevant to the specific patient context, including highlighting any substantial variation from expectations, and generating appropriate prompts and alerts.

Managers, Planners and Researchers will have:

- better access to appropriately anonymised and summarised data, arising from the myriad of patient contacts taking places across NHSScotland, that will enable individual and teams of clinicians to analyse, better understand and improve their clinical practice
- support from immediate information that enables them to take operational decisions on an hour-to-hour and day-to-day basis that can improve patient flow and the management of outpatient, inpatient and community services
- a greater capacity to analyse and understand specific patient populations, whether by geography, age group or condition(s), and undertake risk stratification and predictive analytics that can inform prevention measures and early intervention with a view to improving health and reducing unplanned admissions.

As a result of the above, eHealth will contribute towards a continuing shift of the location of care along the spectrum from acute hospitals towards the patient's own home, with eHealth support for community health and social care teams and capabilities to support self-management such as remote monitoring and teleconferencing.

eHealth will enable care and treatment to be more personalized and continuous.

People will be healthier for longer and when they have health problems these will be predicted and managed more effectively and more efficiently, benefitting not only the patient but also the overall sustainability and total capacity of the health system.

**Ref for the following section: [Scotland's trade and investment strategy 2016-2021](#)**

- Over the last 5 years Scotland's international exports have increased by 17.3% - from £23.4 billion in 2010 to £27.5 billion in 2014. Meanwhile, Scotland has continued to be the most

attractive place in the UK outside London for inward investment and events such as the Commonwealth Games and Ryder Cup have put Scotland firmly on the global map.

- Dynamic trends shaping society and global economy:
  - *Changing consumer demand* - demographic shifts and increased affluence

With the global urban population growing by 65 million a year and nearly half of global GDP growth to 2025 expected to come from cities in new economies, these changes are being driven by a growing consumer base in mega-cities like Shanghai and Mumbai and regional corridors such as Hong Kong-Shenzhen-Guangzhou. Furthermore, the digitally connected, young demographic of many countries is driving demand for particular products and services and for a more responsible approach to business.

- *Technology*: New markets emerging in areas such as information and communications, energy, biological and material science, technological advances. - - For instance, in the 'connected living' market, a trillion globally connected devices now form part of the 'Internet of Things', unlocking new opportunities and new ways to do business.
- *Healthcare and wellbeing*: With an ageing global population and increased emphasis on health and wellbeing, spend in this area is rising faster than per capita income. There is increased emphasis on prediction, diagnosis and monitoring; opportunities in areas such as genomics, gene therapy and assisted living; as well as wearable technologies, remote patient alarms and smart apps.
- *Low carbon and clean-tech solutions*
- *Responsible business*

-The key sectors of Scottish Government and markets:

- Premium consumer products and services
- Digital technology and high value manufacturing
- Skills, knowledge and innovation
- Healthcare and Wellbeing (We will test and scale up new propositions in niche areas such as digital health, precision medicine and industrial biotech to realise trade and investment opportunities from increased global spend on healthcare and wellbeing)
- Low carbon

- Responsible business

#### **Core market areas for Scotland:**

- EU and the single market (!) – Scotland’s most important international export market. 2005-2014 Scotland’s businesses have exported over £106 billion of good and services to the EU – more than 45% of all international exports. Single market also key factor in attracting inward investment to Scotland.
- North America – relative ease of market access, esp for early –stage exporters. Main market area for international export for Scotland outwith the EU. Over the last 10 years (2005-14), Scotland’s businesses have exported nearly £36 billion of goods and services to North America – more than 15% of all international exports. The U.S has accounted for around 40% of all inward investment projects to Scotland.
- Asia – Scotland to step-up focus for investment in Asia
- Taking advantage of networks and Global Platforms

The Scottish Government is committed to embedding internationalization across its policies and activities to ensure international competitiveness:

- Planning, infrastructure and connectivity
- Research and Innovation
- Languages and learning
- Talent, migration and international students

Scotland’s export base needs to be broader with more SMEs exporting. Exports needed beyond traditional markets.

- Make it easy for potential and existing exporters to access information, advice and support from SDI, UKTI and other providers;
- Introduce businesses to overseas customers - 42% of non-exporting businesses and 48% of exporting businesses say this will help them improve their international performance;

- Help businesses realise the export-potential of existing products and services and/or innovate to create such potential - 60% of non-exporters report that their products or services are unsuitable for export;
- Help businesses, especially SMEs, reduce their transport costs - 31% of businesses say that transport costs are a barrier to exporting; and
- Mitigate businesses concerns about currency/exchange rates - 42% of
- exporting companies report that currency/exchange rates were a barrier to future international business development.

**Ref for the following section: [Scotland CAN DO framework:](#)**

(The creation of the Scotland CAN DO Innovation Forum was announced in the Programme For Government and Scotland's Economic Strategy.

Improving Scotland's innovation performance is a top priority; it will mean seeking to shift business perceptions of, and ambitions for, innovation, making best use of public sector levers and funding to drive change and developing a truly collaborative approach to tackling these issues.

Led by the Deputy First Minister, the Forum will set challenging objectives for innovation in Scotland, develop a set of shared outcomes and scrutinise progress towards delivery.)

**Ref for the following section:** (Still Scotland CAN DO strategy, full doc)  
<http://www.gov.scot/resource/0043/00438046.pdf>

The purpose of this framework is to set out our vision and ambitions for becoming a world-leading entrepreneurial and

innovative nation– a CAN DO place for business.

Ambition:

- An increase in entrepreneurship and innovation activity from individuals and businesses in Scotland resulting in more businesses being formed and new products and services from existing businesses;

- More people from all walks of life with the ambition and skills to create, lead and grow successful businesses;
- An education system with entrepreneurship and innovation at its core, seizing the opportunities presented by Curriculum for excellence, college reform and the world-leading strength of our universities;
- More of our knowledge and intellectual capital being commercialised and greatly increased collaboration between business and the academic sector; and a greater focus on, and share of, global markets as our business leaders grow in confidence and expand their horizons internationally.

Entrepreneurship and innovation contribute to securing sustainable economic growth through. The Government Economic Strategy states: “Scotland is a country rich in economic potential. Our people are creative, ambitious and resilient and we are home to world class entrepreneurs, scientists and engineers. It is vital we harvest the opportunity that this provides.”<sup>5</sup>

- Entrepreneurship and innovation are also key elements of the European Union’s Europe 2020 aim of smart, sustainable and inclusive growth. - - Innovation is seen as the engine of long term economic development and has underpinned much of the UK’s productivity growth.
- As Nesta highlighted in its recent publication Plan I The Case for Innovation-led Growth, “63% of productivity growth in the last decade came either directly or indirectly from innovation”.<sup>7</sup> Investment in innovation is a prominent feature in the strategies of many successful small economies, including Finland<sup>8</sup> and Denmark<sup>9</sup>
- Demand from consumers - - is the most important factor in the success or failure of businesses. Innovation and entrepreneurship can help stimulate that demand and generate market opportunities for new projects and services, leading to economic growth.
- The Global Entrepreneurship Monitor (2013) noted that in 2012 the rate of Total Early-Stage Entrepreneurial Activity (TEA) <sup>12</sup> in Scotland was 6.9 per cent compared to 6.2 per cent in 2011. Over the last three years, Scotland’s TEA rate has moved from being in the fourth quartile amongst 20 innovation driven nations to the second quartile<sup>13</sup>. Scotland is in the top quartile of OECD countries for research and development spend by the higher education sector (2011)<sup>14</sup>.
- Scotland has been recognised as the best place in the UK to start a life science business for the second year in a row<sup>15</sup>.

The Regional Entrepreneurship Acceleration Programme (REAP) 17 is looking at the interaction between innovation and

entrepreneurship capacity. - - The following have been identified by REAP as areas where collective action is required in Scotland:

- Effective connections.
- Skills for growth including sales and certain technology skills.
- An increased role for universities within the entrepreneurship ecosystem.
- Promoting entrepreneurial role models.
- Securing appropriate finance is a key challenge for many growing businesses

Scottish government priorities moving forward:

A collective approach that brings companies, universities, public agencies and customers together to exploit more of the opportunities that drive growth and increase exports.

The digital economy is key to much entrepreneurial activity and innovation and to support our businesses to work in the digital economy we are investing in infrastructure that will allow super-fast broadband rollout across Scotland. The Step Change Programme<sup>22</sup> is putting in place infrastructure that will have the capacity to deliver next generation broadband to at least 85 per cent of premises by 2015/16 and 95 per cent by 2017/18. There will also be a new Digital Scotland Economy Partnership with our public and private sector partners, to ensure that all of Scotland's businesses can benefit from the digital age.

Priorities moving forward:

- Providing aligned and focused business support to improve entrepreneurial and innovative capabilities.
- Having a range of public sector investment support available.
- Focusing on the skills businesses need to innovative and grow.
- Supporting entrepreneurs and innovative businesses to work in the digital economy.
- Working to secure greater access to finance.
- Working with our established middle-sized companies to support growth potential.

Supporting businesses which have the greatest potential for growth, internationalisation and economic benefit requires a linking together of the people, ideas, experience, technology, finance and production networks needed to successfully develop new ideas and methods and then bringing them to scale and market. We also need to improve creation and exploitation of knowledge across the innovation system, including through encouraging more collaborations between businesses and between businesses and academia.

The network between business and academia is crucial. There is a need to support and promote the benefits of knowledge exchange collaborations between businesses, universities and colleges that deliver a positive economic impact.

Priorities moving forward:

- Ensure better collaboration and knowledge exchange between businesses and between business and universities and colleges.
- Implement Innovation Scotland and Innovation Centres to support greater business and academic collaboration.
- Support businesses to access European research and development funds, particularly Horizon 2020.
- Support and develop the opportunities for mentoring for our entrepreneurs and innovative companies.

Ref for the following section: [Digital Participation: the national framework for local action](#)

The National Framework for Local Action sets out how Scottish Government is working in partnership with public, private and third sector organisations to ensure that all sections of Scottish society are able to make confident use of digital technologies and the internet.

The document sets out that internet access and confident digital literacy should be an equal right enjoyed by everyone and a prerequisite for building a world class Digital Scotland. Improving digital participation



relies on strong partnerships between businesses, the third sector and public bodies “to create a positive digital culture where best practice is shared and embedded across the country”.

Future-proofed digital connectivity underpins this ambition.

Progress to date:

- At the highest level, digital participation is measured by access to the internet. In Scotland, the proportion of households with internet access in Scotland now (2014) stands at 76%, compared to 40 % at the beginning of 2003.
- Digital exclusion is strongly associated with other forms of social deprivation. - -Scotland is no exception to this rule. - - Within the most deprived 10% of the population, broadband uptake is 53%, whilst uptake rises to 81% amongst the least deprived 10% of the population.
- Those who remain offline are predominantly older, in lower income groups and likely to live in social, rented accommodation. - - This is particularly worrying because many in these groups would benefit disproportionately from being online as a means of increasing employment prospects, reducing isolation and enabling independent living.
- “Our vision is for Scotland to be a world leading digital nation by 2020, and while good progress is being made in delivering digital infrastructure, more needs to be done to create the demand for new connectivity and ensure that people across Scottish society share in the benefits it can bring.
- An economically vibrant and inclusive Digital Scotland hinges on everyone being creative in their use of technology, innovative in developing services and applications and comfortable using the internet as an everyday, anytime, anywhere technology to enrich their lives.

The Digital Scotland Superfast Broadband programme will ensure that 85% of premises in Scotland have access to fibre broadband by the end of 2015/16 and 95% by 2017/18.

In order to ensure world class levels of digital participation the Scottish government will:

- ensure that digital public services are designed using standards that focus on user needs and tackle digital exclusion
- open data and encourage Scotland's Digital/ICT sector to use it in new and innovative ways to deliver digital services to the people of Scotland
- support the roll out of new ehealth services to improve care and drive demand in remote and rural areas
- support community groups to develop digital information and services

**Ref for the following section: Local Government ICT Strategy - Delivering Better Services for Communities** [Local Government ICT Strategy](#)

Gartner predicts that technology changes will also have a considerable impact on how we deliver IT in the future and this will mean different skills and competencies will be required:

- By 2014, 90% of organisations will support corporate applications on personal devices.
- Three out of ten IT functions will become cloud brokers for their organisation.
- By 2015, mobile application development projects will outnumber PC projects by a ratio of four to one.
- By 2016, half of IT provision will be delivered via the cloud.

Governance should also ensure that clear links are made with the key reform programmes such as Welfare Reform and Health and Social Care integration which are likely to require joined up ICT systems and the sharing of data across the public sector.

A new ICT Political Management Group has been established

by COSLA to:

- Demonstrate leadership by local government and to publicise and highlight what we are already doing.
- Encourage greater joint working and sharing on ICT now by promoting reuse and new procurement standards that encourage ICT sharing.
- Support Scotland Excel to achieve more shared procurement and introduction of contracts that allow sharing.
- Ensure that within 12 months a formal proposition is in place for future sharing and collaboration delivery.

#### ACTIONS

- Ensure that we share data and have a single view of the customer, particularly with regards to health and social care integration.
- Create common platforms around technologies that help our employee to work 'anywhere and at any time'.
- A new delivery model will be developed for the sharing of services, to coordinate existing sharing across Council and to commission strategic solutions.
- New procurement model: Scotland Excel will lead on procurement of ICT working closely with the national cross sector organisation and Scottish Procurement.