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Digital Wales: A Review of Delivery



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Ministerial Foreword

I am pleased to provide an update on progress against the objectives set out in Delivering a Digital Wales (December 2010).

It is two years since Digital Wales was launched and in that time much has been achieved. The last 12 months has been particularly busy. In March, Google launched their “Getting British Business Online” campaign in Wales. In July we committed to next generation broadband across Wales. In September, we established a new National Digital Learning Council which will be taking forward a new digital learning programme for Wales. In September, the National Survey for Wales reported that digital exclusion in Wales has fallen to its lowest ever level (27%) and finally my independent Digital Wales Advisory Network have just submitted their report on how to improve online public services in Wales.

Much of the last two years has been about improving our digital infrastructure for all users. Businesses need access to high-speed broadband to compete globally and every citizen in Wales needs access to broadband. That is why I am committed to ensuring that all residential and business premises in Wales have access to high speed broadband by end of 2015. It will position Wales as a broadband leader and make us one of the best connected countries in the world.

But the digital agenda is not just about investing in our infrastructure, it’s about how we use the technology. People often talk about the “last mile”, the physical piece of fibre or copper that takes broadband to the front door. The real “last mile” is whether or not our citizens and businesses choose to engage with the technology.

Digital Wales was developed to create that engagement and in doing so to bring together the things that we need to do to grow our digital economy, to improve digital literacy, to tackle the digital divide and to provide better online public services across Wales.

This is a complex and fast moving agenda and as such there is no one indicator that I can use to assess how well we’re doing. It is therefore all the more important to reflect on progress to date. This report provides an assessment of delivery against each of the strategic objectives contained within the Digital Wales Delivery Plan (March 2011). It does not do justice to the many excellent projects and initiatives that are going on across Wales, many of which I and other Ministers have had the pleasure of seeing at firsthand.

Finally, we must ensure that we build on our achievements. Whilst much of the last two years has been about infrastructure, going forward, I expect the focus to switch to how can we exploit next generation broadband. The opportunities are endless: from creating new online public services to improving how we use technology in our schools and hospitals; from using technology to consume energy more sustainably to helping our businesses exploit new markets and create new jobs.

There are also significant challenges ahead particularly around online services such as the UK proposed Universal Credit which launches later this year. This alone will have major implications for Wales particularly for those who do not have access to the internet or who lack the skills to use it.

Mrs Hart, MBE OStJ AM
Minister for Business, Enterprise,
Technology and Science

Digital Inclusion

An inclusive, sustainable and prosperous society

Digital inclusion is a real and pressing issue both within Wales and across the UK. Digital exclusion can reinforce social and financial exclusion and the continuing development of technology can introduce new types of exclusion. The Digital Agenda for Europe¹ calls for a halving of the proportion of the population that has never used the internet (to 15%) by 2015.

Our Objectives

Digital Wales recognises the importance of ensuring that strategies and initiatives, whether for growth, public service delivery, tackling poverty or independent living, take into account the importance of digital inclusion. The following objectives seek to develop a holistic approach to reduce the number of digitally excluded people in four priority groups (older people, unemployed and economically inactive, social housing tenants and disabled people) by:

- (i) building delivery partnerships across the private, public and third sectors.
- (ii) providing free access to ICT and the internet to all four priority groups.
- (iii) developing ICT skills and digital literacy across all four priority groups.
- (iv) reducing digital exclusion across all four priority groups.

How are we doing?

(i) Building delivery partnerships across the private, public and third sectors

Progress against this objective has been significant. There are now effective partnerships in place with a wide range of organisations at a UK and a regional level such as the BBC, Job Centre Plus, Housing Associations, Post Office Limited, local authorities, Age Cymru, organisations representing disabled people and Libraries. In August 2011 a virtual stakeholder group was established to build wider partnerships and encourage the sharing of good practices in addressing digital exclusion.

The Welsh Government's Digital Inclusion Unit provides a central focal point to coordinate these partnerships and collaborations. It regularly brings all the key partners together through the Digital Inclusion Programme Board providing an opportunity to share progress being made in achieving the targets to reduce digital exclusion and ensure that activities and plans remain focussed on achieving the overall objective.

Groups such as these have already generated much greater engagement and collaboration between stakeholders. This has helped socialise better knowledge and information and given rise to a number of new collaborative initiatives adopting a multi-agency approach, including supporting Job Centre Plus clients to use the internet so that they can search and apply for jobs online. We have also seen collaboration between Communities 2.0 and the Post Office to signpost people to local internet access points and learning centres.

¹ <http://ec.europa.eu/digital-agenda/en> (May 2010)

In March 2012, the Minister for Education and Skills launched the Welsh Language Strategy 2012-2017: *A living language; a language for living*². The goal of this strategy is to see the Welsh language thrive and prosper in Wales and underlines the importance of providing a strong ICT infrastructure to support speakers to use the language in every aspect of their lives. The Minister set up a Welsh Language Technology and Digital Media Group in March 2012 to provide him with expertise, experience and advice on the Government's role in leading developments that will strengthen the Welsh language through digital technology and content.

One of the key actions is to build partnerships with the major technology companies such as Apple, Microsoft, Google and Amazon (and others) to encourage them to provide their products with a Welsh language platform.

(ii) Providing free access to ICT and the internet to all four priority groups

Progress here has also been significant. There are now numerous places across Wales, whether public buildings such as libraries and leisure centres or retail businesses such as coffee shops and supermarkets, which offer free access to the internet.

All public libraries (over 280) in Wales provide free access to computers and the internet and library staff have received introductory training to offer ICT support to users, particularly supporting older people and people with disabilities. These free facilities have proved to be very popular with in excess of 2.1 million hours of recorded use in the last year alone

² <http://wales.gov.uk/topics/welshlanguage/publications/wlstrategy2012/?lang=en>

(2011-12). In excess of 210,000 people³ have, over the last two years, engaged with Welsh libraries as part of the UK's Race Online 2012 initiative (now Go On UK). Welsh libraries have also supported the Welsh Government's drive to get people using computers and the internet for the first time.

Some of the Welsh Local Authorities are providing free internet access to their citizens, for example Monmouthshire County Council has rolled out free wifi internet access throughout the town of Monmouth. This particular initiative has been delivered in conjunction with their partnership with Wikimedia UK to deliver Monmouthpedia, creating the World's first Wikipedia town. The project uses Wikipedia content on notable places, people, artefacts, flora & fauna from Monmouth. The project is recognised as an excellent example of driving digital inclusion to provide a "reason to go online" to view additional information about the town and helping to remove the barrier/fear of using the internet.

Gwynedd Local Authority, through their Digital Gwynedd initiative, is providing free wifi access for all using the council's county-wide wifi hotspots. This is providing free internet at public swimming pools, leisure centres, libraries and council office buildings to help remove the cost of internet connection which is a known barrier preventing citizens going online. The Welsh Government has provided free access to computers and the internet for all citizens in two of its own main buildings in Aberystwyth and Llandudno Junction.

Through its Visit Wales programme and in collaboration with the mobile provider 3™, the Welsh Government has funded free wifi access at all 24 Welsh

³ Society of Chief Librarians Wales

tourist information centres. Additionally, the Welsh Government has worked in collaboration with the EU funded Communities 2.0 programme and seven of the housing associations in Wales to provide free wifi internet access for people living in social housing premises. This initiative will be extended to help address the National Survey for Wales (2012)⁴ findings that 41% of the digitally excluded people in Wales live in the 10% most deprived areas on Wales.

(iii) Developing ICT skills and digital literacy across all four priority groups

A report published in November 2012 by consultancy firm Booz & Company⁵ suggests some 16 million people in the UK still lack basic online skills. The report which was commissioned by Go ON UK, a charity chaired by the UK digital champion Martha Lane Fox, defines basic skills as using a search engine, sending and receiving emails, completing online applications and accessing information online.

The report is a timely reminder of the scale of the challenge both in Wales and the UK. In Wales, the latest findings from the 2012 National Survey for Wales indicate that 23.4% of adults aged between 16 and 64 who do not use the internet say it is because of a lack of skills.

Despite continuing high levels in the number of people lacking basic online skills, good progress has been made in setting up a network of support for digital skills across Wales. This has been led by key Digital Inclusion delivery partners such as Communities 2.0, the BBC and Libraries as well as the Sector Skills

Council, educational organisations and the efforts of Local Authorities.

Communities 2.0's collaboration with numerous Welsh housing associations is ensuring that the staff can provide ICT support to residents of social housing helping them enjoy the benefits of digital technologies. Communities 2.0 have also worked with Care & Repair Cymru to help train staff to provide basic support and advice on using computers and the internet to their clients during visits.

The Royal National Institute for the Blind, along with the Shaw Trust, Abilitynet and Communities 2.0 have delivered awareness and training sessions to people with impaired vision. These demonstrate how to make use of various technologies to access the internet and use other digital technologies such as mobile phones, tablet computers and eBook readers.

(iv) Reducing digital exclusion across all four priority groups.

Progress against the headline target of reducing digital exclusion amongst adults from 34% in 2010 to 25% by 2015 has almost been achieved. The 2012 National Survey for Wales⁶ found that digital exclusion amongst adults in Wales has fallen to 27%. This indicates that as a nation Wales is embracing the benefits of the digital age and that collectively the actions taken are having a significant impact. Figure 1 shows how take up of broadband at home in Wales (which is a good proxy indicator for digital inclusion) has closely tracked the overall UK position since 2005.

However, progress against the harder to reach target groups remains challenging. Further analysis of the internet use results from the 2012 National Survey⁷, which

4 <http://wales.gov.uk/about/aboutresearch/social/ocsropage/nationalsurveyforwales/publications/?lang=en>

5 Booz & Company report for Go On UK – *This is For Everyone: The Case for Universal Digitisation*

6 *ibid*

7 *ibid*

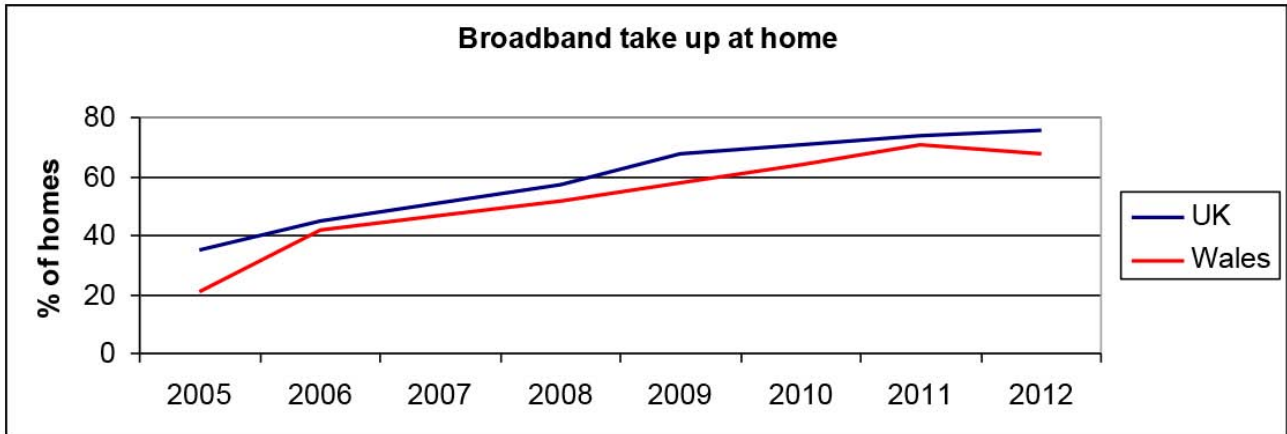


Figure 1: Source – Ofcom – Communications Market Report 2012

was published in December 2012, showed that 55% of older people now use the internet compared to 51% in 2010. Figures for the unemployed have also improved from 27% exclusion in 2010 to 20% in 2012.

Public libraries and partnerships across the private, public and third sectors will help to assist those who feel digitally disadvantaged.

The latest research from Ofcom⁸ suggests that the number of households in Wales that subscribe to broadband in social groups C2DE⁹ is at 58% which is behind the UK at 64%. This finding is supported by the National Survey (2012) which indicates that 41% of households in the 10% most deprived areas in Wales did not have access to the internet, and that internet access in social housing has only seen a small increase since 2010

These findings indicate that going forward there is a need to continue to provide targeted and tailored initiatives to tackle digital exclusion, particularly when online access to Universal Credit rolls out next year. As more services are delivered primarily online the level of initial support required is likely to increase significantly.

⁸ Ofcom Communications Market Report Wales (2012)

⁹ NRS Social Grades – C2DE includes skilled/manual tradesmen; semi-skilled; or unskilled; people on state pension, students on state benefits.

Digital Skills

eSkills – Skilled and competent people

The 2012 Global Information and Technology Report by the World Economic Forum¹⁰ suggests that the most important driver of economic and societal growth is no longer how well connected a country is to the internet but the digital ability of their citizens and businesses.

Our Objectives

Digital Wales recognises that countries that make the best use of technology and who have the best supply of digital skills are emerging as the global winners. It sets three fundamental objectives:

- (i) improve the digital skills of children and young people.
- (ii) improve the digital skills of adults.
- (iii) improve the use of digital technology in education.

How are we doing?

(i) Improve the digital skills of children and young people

The number of learners taking ICT GCSE in Wales has continued to decline and more employers are expressing concern over what is being taught in schools. As a result young people are being 'switched off' careers in the sector and they lack the necessary digital skills for the jobs market of tomorrow.

To help reverse this trend the Welsh Government has ensured that all learners at key stage 4 (14 to 16 year olds) have an entitlement to take an ICT qualification. The first cohort took their exams in summer 2012 and the outcome of this is currently being collated.

¹⁰ <http://www.weforum.org/reports/global-information-technology-report-2012>

Early indications are that the proportion of the key stage 4 cohort taking an ICT qualification is broadly the same as in previous years. In recognising this challenge the Minister for Education announced a review of assessment and the National Curriculum in Wales¹¹ (October 2012) and in November 2012 established an ICT Steering Group¹² to take forward consideration of and report on the future of computer science and ICT in schools.

(ii) Improve the digital skills of adults

Results from the 2011 employer survey carried out by e-skills UK (Sector Skills Council) suggest that Welsh businesses are still reporting gaps in the basic digital skills of their employees (23%) and over a third (37%) report gaps in more specialist skills (see Figure 2 overleaf).

The Welsh Government has worked with a range of organisations including e-skills UK (Sector Skills Council) and further education institutions to develop a programme of support to help address skill gap issues, for example:

- Pathways to Apprenticeships – a programme that prepares 16 to 24 year-olds for apprenticeship opportunities. In 2012, 123 learners are enrolled in 8 colleges.

¹¹ <http://wales.gov.uk/publications/accessinfo/drnewhomepage/dr2012/octdec/addysg/la3119/?lang=en>

¹² <http://wales.gov.uk/about/cabinet/cabinetstatements/2013/ictsteeringgroup/?lang=en>

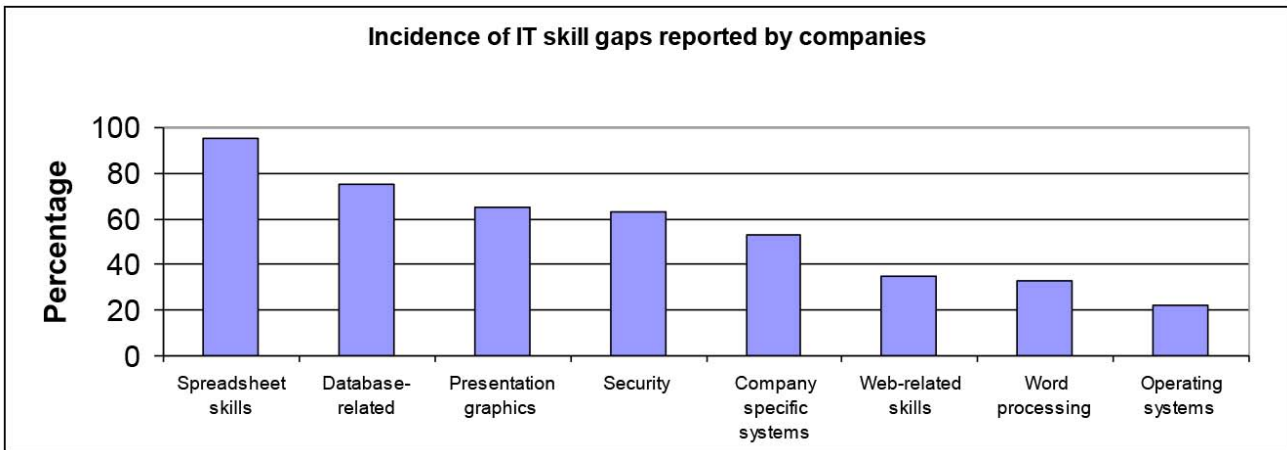


Figure 2: Source – National Skills Academy for IT – Employer Survey 2011

- Pilot Apprenticeship programme – provided 108 new apprenticeship places from January 2013. This piloted a new level 3¹³ framework in IT Professional (software etc) and IT Applications.
- e-skills UK Professional Placement – a 10 week pilot in computer programming. 27 unemployed people took part in the pilot and nearly all found employment suggesting strong demand for appropriately trained individuals.
- A full IT Management for Business Work-based Foundation Degree was launched at Glamorgan University in October 2011 and is increasing its intake numbers year on year. This course will now be run at Cardiff Metropolitan and Swansea Metropolitan Universities.
- Employment-readiness project – e-skills UK provides funding to enhance the employment readiness of undergraduates on ICT related disciplines. In Wales six universities are involved, each with a minimum of twenty of next year’s graduates signed up to the programme.

(iii) Improve the use of digital technology in education

There has been substantial progress against this challenge. In 2011, the Minister for Education commissioned an independent review of digital classroom teaching in Wales. The review published its report: *Find it, Make it, Use it, Share it – Learning in Digital Wales*, on 29 March 2012.

A National Digital Learning Council has been established to provide expert and strategic guidance on the use of digital technology in teaching and learning. The remit of the Council is to implement a new digital learning programme for Wales and to promote and support the use of digital resources by learners and teachers.

The Hwb, a new bilingual learning platform for Wales launched in December 2012, will provide a platform for educators and learners to share resources, knowledge and experience across the whole of Wales. The platform is accessible anywhere, anytime and will run on a wide range of devices. It allows teachers to share resources and provide the online home for a national digital repository of teaching and learning content. Later in 2013 it will also provide access to a range of licensed educational tools and content.

13 Level 3 qualifications include A levels and National Diploma

To ensure that technology, such as the Hwb, is used effectively it is being supported by a new team of Digital Leaders drawn from the best practitioners in Wales. These Digital Leaders will support best practice in the classroom and act as online champions of digital practice. Furthermore, from September 2013, there is a new pan-Wales programme of continual professional development for all teachers to support the teaching of computing in schools.

Supporting the Hwb and helping ensure that learners across Wales have an equal access to faster, high-quality, robust and reliable broadband services in the classroom the Welsh Government has announced a £39 million '*Learning in Digital Wales Grant*'¹⁴ (January 2013). This investment will ensure that, by 2014, primary and secondary schools in Wales will have access to safe and secure world-class broadband services needed to deliver a world-class digital education.

The new digital learning programme is also encouraging schools to make full use of social technologies. In previous years, local authorities have been asked to block access to social networking sites, which can have adverse effects. It deprives schools of access to tools and resources which might otherwise be used creatively in education both within and beyond the classroom. More importantly, it means that children are most likely to be using these sites outside the school and in environments which may be unsupervised and where they have less access to guidance and support on how to stay safe online.

Finally, to further raise the profile of digital technology in education, and of Welsh achievements in this field, the Welsh Government will be sponsoring an annual National Digital Event in Spring 2013.

¹⁴ <http://wales.gov.uk/newsroom/educationandskills/2013/130114broadband/?lang=en>

Digital Economy

Competitiveness – A Thriving and competitive digital economy

The digital economy accounts for over half of UK GVA and technology will underpin the majority of future job creation across all sectors of the economy¹⁵. Industry believes that future market opportunities will be led by developments in new services, platforms, data and networks and the ability of all sectors of the economy to take advantage of commercialisation opportunities. It is estimated that those businesses that simply embrace being online grow four times faster than those that don't.

Our Objectives

Recognising the importance of digital technologies and the ambition to drive economic growth and support a thriving competitive digital economy, Digital Wales sets out four principle objectives:

- (i) support all businesses to fully exploit digital technologies.
- (ii) increase investment in ICT-based R&D.
- (iii) support and develop the ICT sector.

- (iv) support and develop the creative sector.

How are we doing?

(i) Support all businesses to fully exploit digital technologies

Despite the economic downturn, the digital economy has continued to outperform the wider market. The latest figures from the Office of National Statistics (ONS) show that average weekly internet sales in April 2012 were estimated to be £489 million, an increase of 18.1% when compared with April 2011.

Encouragingly, the percentage of SMEs in Wales with a website has increased from under 50% in 2004 to 60% in 2010 (see Figure 3). However there are still an estimated 83,000 SMEs in Wales that don't have a website. Furthermore, a report published in November 2012¹⁶ by consultancy Booz and Company suggests that just 14% of the UK's SMEs sell their products online.

15 eSkills UK 2010

16 Booz & Company report for Go On UK – *This is For Everyone: The Case for Universal Digitisation*

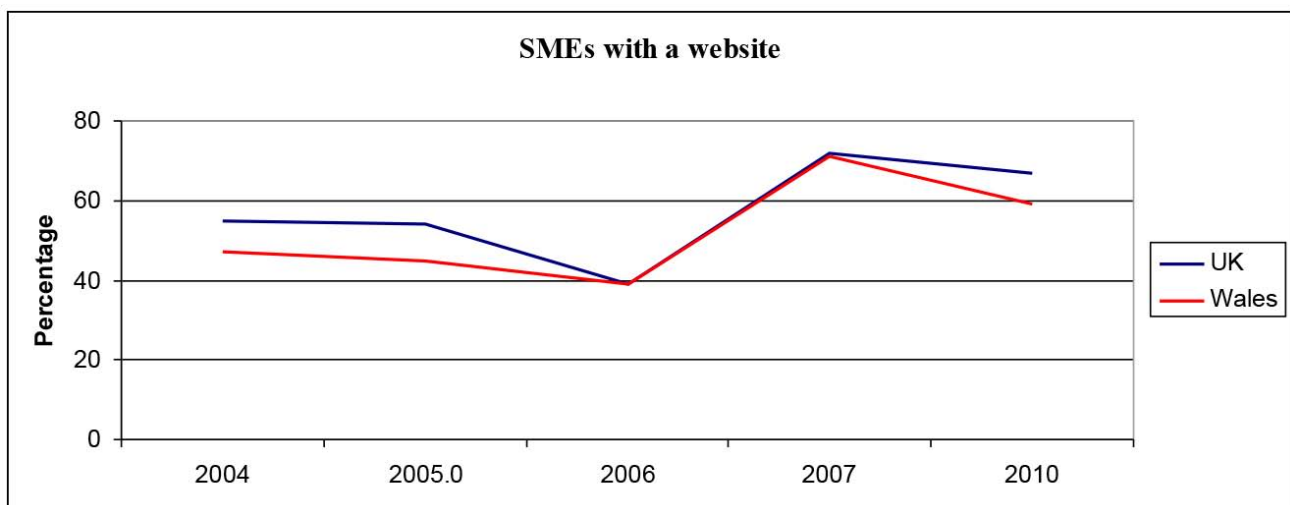


Figure 3: Source – BIS Small Business Survey

To help address these issues, the Welsh Government has embarked on a support programme that has included:

- Providing over 1000 businesses with free advice on how to exploit digital technologies.
- Partnering with Google to get Welsh businesses online which engaged with 420,000 people and provided free one-to-one tutorials to over 6,300 businesses.
- Collaborating with Wesley Clover and the Waterloo Foundation to establish the graduate entrepreneur boot-camp, Alacrity. There are currently 14 graduates in this programme which it is envisaged will lead to the creation of 4 new technology companies each year.
- Delivering the EU exemplar eCrime programme which has provided free expert advice to businesses and citizens to help combat eCrime. This was supported by a highly successful eCrime Summit in November 2011 which was attended by over 400 delegates with an additional 750 delegates following online.

Building on the success of the Welsh Government's e-Crime Programme nearly all Welsh police forces have now appointed a lead person to work with Welsh Government on the new Business Crime Programme.

(ii) Increase investment in ICT-based R&D

There has been significant progress in the development of technology-led innovation. The Welsh Government has taken an active role in developing new mechanisms to stimulate R&D and the commercialisation of ideas. An investment programme of over £85 million has been set up to partner with business and academia to develop a network of R&D

facilities across Wales. Many of these are aimed at helping Welsh businesses to create jobs, grow and compete digitally. These include:

- The Edge in South Wales led by General Dynamics which is working with over 40 other companies to develop virtual and physical environments that enable the rapid deployment of best-of-breed science and technology innovations.
- The EADS Foundation Wales in Newport which is a collaboration between Welsh Government, Cassidian and Cardiff University. It is carrying out R&D to develop the exploitation of technologies that support sustainable development.
- High Performance Computing (HPC) Wales, which is a collaboration between Welsh Universities and Fujitsu, has developed a network of hubs that can analyse vast data volumes at high speed.
- The EU funded Centre of Excellence in Mobile Applications and Services (CEMAS) within the University of Glamorgan is providing eligible firms with support to test and find a route to market for their mobile application through a fully funded development programme.
- The National Centre for Product Design within Cardiff Metropolitan University is carrying out research into better practices in product design and development.
- The E-Health Industries Innovation Centre at Swansea University's Medical School is developing the latest technologies to improve healthcare.

(iii) Support and develop the ICT sector

The ICT sector is one of the nine priority sectors of the Welsh Government and is supported by an independent sector panel which provide expert strategic direction. The Welsh Government's Economic and Labour Market¹⁷ survey indicates that the ICT Sector is outperforming the other priority sectors:

- Full-time gross mean weekly earnings are highest for employees in the ICT sector (£656) compared to the other priority and the non-priority sectors (£521 and £518 respectively).
- Turnover in ICT enterprises increased by 23.0 per cent between 2010 and 2011.
- ICT recorded the largest GVA per job figure of the priority sectors (£92,900), over three times the average for all non-priority sectors.
- The number of ICT employees in registered businesses declined by 5.7 per cent between 2010 and 2011, however, turnover increased by almost a quarter over the same period. In addition, employment, which includes self employment, increased significantly over the same period.

Over the last two years Welsh Government's Grant Funding (WEGF) and Repayable Business Finance (RBF) initiatives have provided over £17m of support to ICT Sector businesses to help create over 1,200 jobs and induce over £16m of private sector investment into Wales.

Despite the economic downturn this sector has expanded by over 10% in the last three years adding nearly 600 new businesses to the Welsh economy.

¹⁷ Welsh Government – Priority Sector Statistics 2012

Most of these are small and innovative new companies built on business models that involve adding value to existing Intellectual Property (IP) and commercialising it.

(iv) Support and develop the creative sector

As a key initiative supporting the Creative sector, another of the priority sectors, the Welsh Government launched a Digital Development Fund (DDF) in December 2011. This provides up to £50,000 financial contribution to projects such as development of video games, new digital "apps" and platforms, protecting IP and developing new digital routes for the distribution of content. The DDF has attracted over 180 expressions of interest, with 24 projects so far approved for funding totalling almost £900,000.

In collaboration with Nesta the Welsh Government has supported the Destination Local programme. This initiative seeks to identify technologies, business models, challenges and content opportunities to maximise the potential for a successful hyper-local media sector in the UK. Welsh Government provides match funding for projects delivered in Wales. The new £1million UK programme was launched in March 2012 with a call for applications from projects seeking seed funding of up to £50,000. Two Welsh projects were successful in securing funding.

Finally the Welsh Government's Creative sector team has managed other funding options to support creative sector projects including: RBF of approx £1.4m to deliver economic benefits to Wales and an Alpha Fund. The latter, launched in September 2012, is a partnership between Welsh Government and Channel 4, designed to support early-stage ideas, talent and emerging companies.

Digital Public Services

Transforming public services

A few years ago the internet was just another medium for the public sector to distribute press releases and publish library opening times. But the internet has changed. New technology has enabled it to become a market place where people can trade with each other, exchange ideas and share content instantly. Whilst the private sector has already embraced this technology and transformed the way services are delivered, the public sector is starting on this journey.

Our Objectives

Digital Wales recognises the potential that technology has to transform the delivery of public services and sets four fundamental objectives:

- (i) increase the availability and take up of online public services.
- (ii) deliver online services designed around the needs of users.
- (iii) develop the infrastructure to support the move to online public services.
- (iv) make more efficient use of technology across the Welsh public sector.

How are we doing?

(i) Increase the availability and take up of online public services

Evidence suggests that progress against this objective has been slow. Ofcom research shows that whilst 68% of households in Wales have broadband, and 60% of internet users are comfortable with online banking, just 18% of adults used the internet to visit a government website in 2012. A study by the Bevan

Foundation¹⁸ suggests that the main reason for low levels of take up is that only a limited number of services are available online and many of those that are online are poor.

Driving take up was arguably the most important challenge made by Digital Wales as ultimately it is take up that stimulates demand for new services and the only way to achieve benefits from existing online services. Nevertheless, there are some excellent initiatives in Wales. The NHS Wales “My Health Online” service allows Welsh patients to book GP appointments and order repeat prescriptions. To date, of the 475 GP surgeries in Wales, 114 are using My Health Online, which means that over 300,000 patients have access to the tool. Take up is currently just 5%.

There are, however, online services that have experienced exponential growth in take up. For example, NHS Wales web visits have increased by over 400% since 2007 as shown in Figure 4 overleaf.

(ii) Deliver online services designed around the needs of users

Since Digital Wales laid down the challenge of building online services that are designed around the needs of users, there has been universal agreement that this is the right approach. The UK Government’s Digital Strategy (November 2012) places building user-centric services at its heart and Socitm, the professional association for public sector ICT management, produce regular guidance for local authorities on standards for usability. It is still early days in delivering

¹⁸ Bevan Foundation Report (Sept 2011): *Digital by Default – Online Public Services and digital inclusion in Wales*

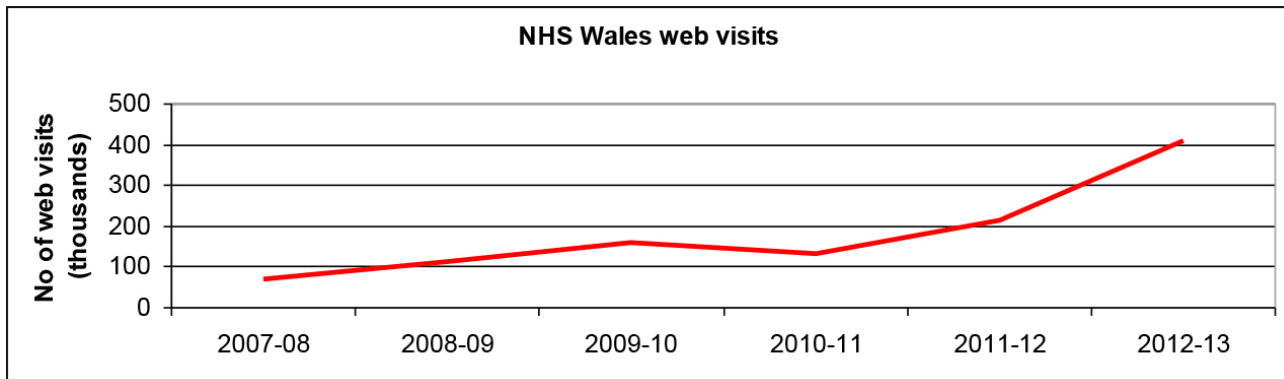


Figure 4: Source – Welsh Government

against this challenge and many online public services are still designed around organisational branding needs rather than user needs, however major new initiatives such as GOV.UK the new single website for all non-devolved government information and services are leading the way.

(iii) Develop the infrastructure to support the move to online public services

Much of the focus over the last two years has been on building the digital infrastructure necessary to support the move to online public services. The Welsh Government published its ICT Strategy for the Public Sector in Wales (June 2011), the aim being to build an open, modern and flexible digital infrastructure. Delivery is being overseen by a newly created Chief Information Officers Council (CIOC) for Wales. Their vision when considering online services across the whole public sector is “Once for Wales, together for Wales, right for Wales”.

This is being delivered through the joint engagement of the CIOC and the National Infrastructure and Design Authority. This is enabling common standards and technical design solutions to be agreed. Progress in some areas, such as moving to open source, developing a common authentication approach and using the cloud, has been challenging

as it requires some quite fundamental technical and cultural changes.

In other areas such as the Public Sector Broadband Aggregation Network (PSBA) significant progress has been achieved. This award-winning secure shared communications service has been chosen by 103 public sector bodies as their primary communications service. The PSBA now supports over 90% of all major public sector organisations in Wales across all major industries including Health, Education, Local Government, Fire and Rescue Service, Police, Ambulance Service, and the Third Sector. The service now enjoys contracts for around 5,000 separate sites and is the UK’s largest and most diverse next generation public sector communications service.

(iv) Make more efficient use of technology across the Welsh public sector

Digital Wales recognises that under the current economic conditions the public sector in Wales cannot sustain the level of fragmented and duplicated ICT spend that exists. It is noteworthy that since Digital Wales articulated this issue in 2010, the UK Government has created the Government Digital Service (GDS) as a single body with responsibility for all non devolved online public services.

In Wales, there has been significant progress in developing collaborations and building shared services that are already delivering huge efficiencies. For example, Xchangewales, a ground breaking programme that aims to enable all public sector organisations in Wales and their suppliers to trade with each other electronically (e-Trading). The programme aims to save £70million over its five year lifespan, won the award for 'Delivering Efficiencies' at the 2010 Guardian Government Computing Awards.

Another important area identified in Digital Wales as having significant potential to save money is that of data centre rationalisation. This is a large and complex challenge. The Welsh Government's Data Centre Services Strategy was published in 2011, and since that time a great deal of work has been progressed via the Regional ICT Groups to translate that into a workable delivery programme. Specific proposals are now in place, and a Business Case for investment in a National Data Centre capability is nearing completion. This approach has now resulted in a level of local acceptance and "ownership" of the proposals as evidenced by examples such as Swansea Unitary Authority's discussions with Welsh Government regarding the transfer of its local Data Centre provision into the proposed new National capability. It is anticipated that other Local Authorities will follow suit.

Digital Infrastructure

A first class digital infrastructure

Demand for bandwidth is increasing exponentially¹⁹. According to recent statistics from Cisco, by 2014 internet traffic will eclipse 2009 levels by 300%, with an estimated 91% of traffic being High Definition video-based²⁰. Furthermore a recent report by Ericsson, Arthur D. Little and Chalmers University²¹ in 33 OECD²² countries, shows that doubling the broadband speed for an economy increases GDP by 0.3%.

Our Objectives

The delivery of a Digital Wales has therefore been underpinned by a commitment to ensure that Wales has a globally competitive, flexible and forward looking digital infrastructure through three principle objectives:

- (i) basic broadband to be available to all.
- (ii) next generation broadband (minimum of 30Mbps) for all households and businesses.
- (iii) improve mobile coverage across Wales.

How are we doing?

(i) Basic broadband to be available to all

Basic broadband delivered over a standard fixed copper line is theoretically available to all households and businesses (the customer) in Wales. However, factors such as line length can influence the actual broadband speed at customer

19 ITU Broadband Report: *Impact of Broadband in the Economy* (April 2012)

20 Cisco: *Unlocking the Power of Video* (2011)

21 Ericsson, Arthur D. Little and Chalmers University: *Need for Speed* (September 2011)

22 Organisation for Economic Co-operation and Development

premises, leading to so-called “not spots” and “slow spots”. To address basic broadband connectivity issues in these areas, the Welsh Government launched the Broadband Support Scheme in 2010. The scheme provides up to £1,000 grant funding to residential premises and businesses to improve broadband infrastructure. To date, the scheme has supported over 3,900 premises, including 28 community wide solutions, allowing customers to obtain a broadband connection using the most appropriate technology available.

The 2008 Communications Market Report by Ofcom into average broadband speed found that people in Wales were significantly less satisfied with their broadband service than those in other parts of the UK and that Wales had the lowest average speeds in the UK. Since 2008 the average broadband speed in Wales has increased from 3.3Mbps to 9.9Mbps whilst the average UK speed has increased from 3.6Mbps to 12.7Mbps over the same period. However, Ofcom’s Communications Market Report²³ (2012) research indicates overall satisfaction with fixed broadband services in Wales is around 91% and is higher than the UK average of 87%. It also indicates that broadband take-up in Wales is consistently rising and currently stands at 68%.

(ii) Next generation broadband (minimum of 30Mbps) for all households and businesses

At the time Digital Wales was launched in 2010, the Welsh Government then committed to a target of providing Next

23 Ofcom Communications Market Report Wales (2012)

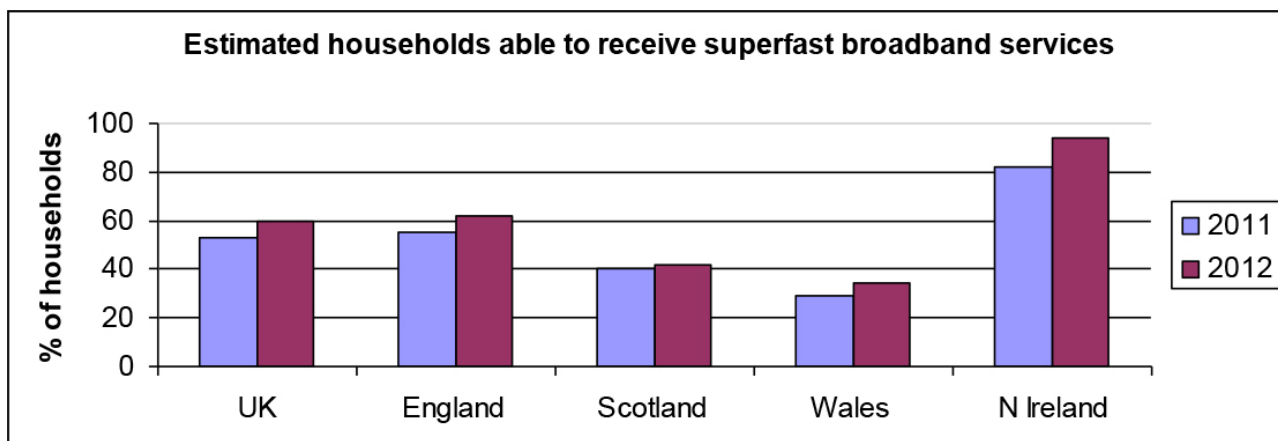


Figure 5: Source – Ofcom – Communications Market Report 2012

Generation Broadband to all businesses by 2016 and all households by 2020. In 2011 Welsh Government committed to an even more ambitious target of providing Next Generation Broadband coverage to all customers in Wales by 2015.

As illustrated in Figure 5, Next Generation Broadband coverage in Wales currently lags behind the rest of the UK at 34%²⁴. To help address this we have committed investment in our telecommunications infrastructure as one of the Welsh Government’s top priorities under the Wales Infrastructure Investment Plan (2012)²⁵.

Delivery of this high priority target is currently on track as we strive to make Wales a global leader in fibre broadband. This fibre broadband approach will provide speeds that are significantly faster than those available in Wales today, with ultra-fast broadband providing even faster speeds should businesses need it. When combined with commercially led investment, more than 1.3 million premises in Wales will have access to world class broadband speeds by 2015.

This has been achieved through a total public sector investment of £205m and over £200m from the private sector.

24 *ibid*

25 <http://wales.gov.uk/funding/wiip2012/?lang=en>

The First Minister said:

“This is an incredibly important agreement for Wales. Our partnership with BT will see to it that Wales does more than simply catch up with our neighbours; we intend to catch-up, overtake and then set the pace that others will strive to match. The project will transform the broadband landscape across Wales and ensure that local businesses can become global businesses. It will ensure that firms remain in Wales and it will also attract a more diverse range of high growth, high value companies to the country across all our key sectors from tourism to high end manufacturing”.

(iii) Improve mobile coverage across Wales

Mobile coverage in Wales has historically lagged behind the UK overall often due to large areas with a low population density and hilly or mountainous terrain. However, in recent years 3G mobile in Wales has rapidly increased and is now very close to the overall UK position. Figure 6 shows that since 2009, 3G mobile coverage in Wales has increase from around 67% of premises to almost 98% in 2012.

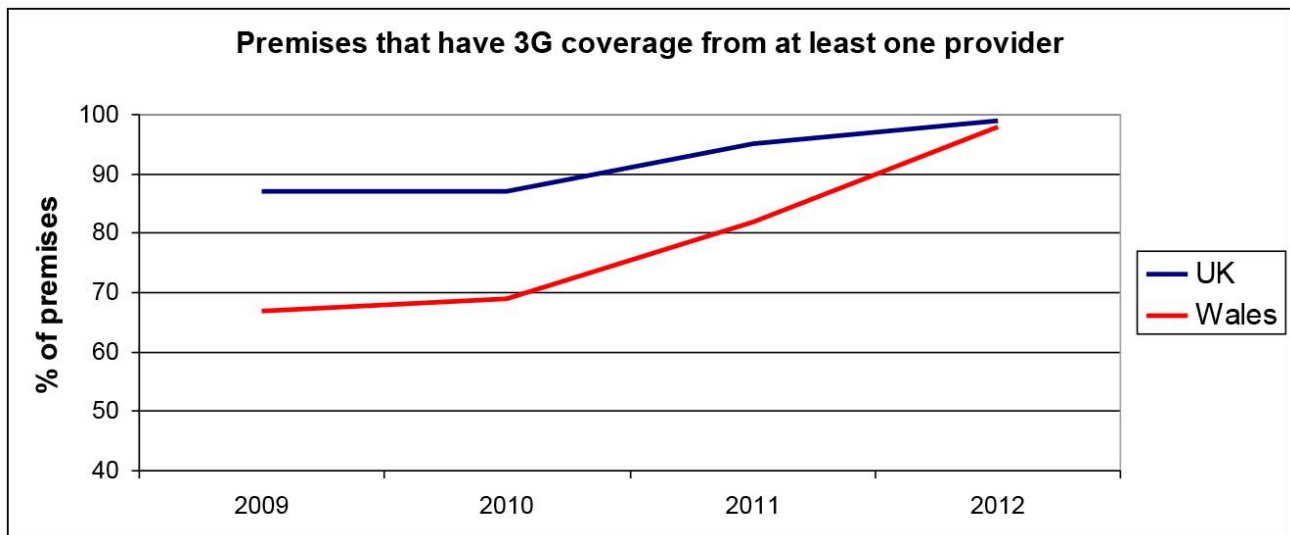


Figure 6: Ofcom – Communications Market Report 2012

The UK Government’s £150 million Mobile Infrastructure Project (MIP)²⁶ aims to improve mobile coverage and the quality of coverage across the UK by 2015. The MIP aims to secure mobile voice services for up to 60,000 or so premises that currently do not receive any mobile service from any operator.

Finally, the rollout of 4G mobile in Wales is forecast to revolutionise rural areas which have patchy or no mobile coverage. In November 2012, Ofcom published the timetable for the 4G mobile spectrum auction²⁷, the largest ever sale of mobile airwaves in the UK. The new spectrum will be used to deliver superfast 4G mobile services to people in cities, towns and villages across the UK and will almost double the amount of bandwidth currently available to smartphones and tablets. Ofcom forecast that there will be between 98% and 99% “outdoor availability” of 4G in Wales²⁸.

26 http://www.culture.gov.uk/what_we_do/telecommunications_and_online/8757.aspx

27 <http://media.ofcom.org.uk/2012/11/12/ofcom-finalises-4g-auction-rules/>

28 Ibid.

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