Scottish Council for Development and Industry

POLICY SUBMISSION

PRIORITIES FOR A NEW STRATEGY FOR A EUROPEAN INFORMATION SOCIETY (2010-2015)

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SCDI is an independent and inclusive economic development network which seeks to influence and inspire government and key stakeholders with our ambitious vision to create shared sustainable economic prosperity for Scotland.

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1. SCDI is an independent membership network that strengthens Scotland's competitiveness by influencing Government policies to encourage sustainable economic prosperity. SCDI's membership includes businesses, trades unions, local authorities, educational institutions, the voluntary sector and faith groups.

Introduction

2. SCDI welcomes the European Commission's Digital Competitiveness report and this consultation on *Priorities For New Strategy for European Information Society*. The European Commission is correct in identifying the potential of Europe's digital sector to support economic recovery and drive long-term competitiveness. Strong progress has been identified by the European Commission since 2005. But the US has an established lead in the area of content and applications, India is already strong and competition is growing from other developing economies such as Brazil, and Europe needs to catch up with the investment levels in world-class communications infrastructure in the US, China, Japan and South Korea.

3. The potential opportunities from the digital economy for innovation and productivity increase at national and Europe-wide levels are enormous, but they have not yet been fully harnessed. Increased spending in Europe on the high-risk research programme Future Emerging Technologies, from €100m in 2009 to €170m by 2013, is welcome, but in order to complete the single European digital market, a co-ordinated strategy for investment across all regions is needed. National budgets will need to be increased to support delivery of the priorities of:

   - Universal, affordable and secure access to world-class telecoms connectivity
   - World-class performance in research and innovation in ICT

4. SCDI has not answered every question. Its comments are focused on the UK, especially Scotland, but its points can be applied to the wider European debate.

Economic Recovery and the Lisbon Growth and Jobs Agenda

5. The potential of the European economy to develop innovative and world class digital economy businesses is significant. Microsoft's Chief Executive Officer Steve Ballmer has recently predicted that 80,000 jobs could be created and nearly 2,500 technology firms set up in the UK alone over the next four years. Most of these new companies will be small and locally owned organisations. But there is a risk that better infrastructure will attract companies non-EU countries.

6. Growth in the UK digital sector will partly be driven by spending. This year £50bn will be spent on IT, which will increase by 1.8% a year between now and 2013.

7. However, if Europe is to fully unleash the potential of its ICTs to drive economic recovery and productivity increases, the scale of a single digital market is needed, underpinned by universal access to world-class telecoms connectivity.

   <u>A Single European Information Space</u>

8. Services account for about 70% of EU employment and value-added, but only 20% of intra-EU trade. It has been estimated that the availability of better, cheaper cross-border communications could boost EU GDP by 1.6% to 2%.

9. A level marketplace for broadband and mobile telecommunications across Europe is essential to create a single European Information Space. This should be supported by harmonisation of regulatory matters, access and competition.

10. A single European Information Space will enable greater adoption of e-commerce by businesses and also support the Regional Policy aims of the EU. By creating an accessible and integrated European wide market, businesses in all parts of Europe, including rural and peripheral areas, can trade and grow.

11. The Single European Information Space can be established by removing the artificially high costs involved in data transmission in Europe; common governance for security, illegal or inappropriate content, privacy, piracy and data protection; a supportive enterprise governance framework and a risk assessment of major potential points of failure in the European communications network.

12. Productivity gains within multi-national companies and between members of informal SME coalitions requires major investment in and pan-European deployment of software platforms which work together with IP networks in order to provide reliable business-grade services. This will involve proper enforcement by the EU of competition obligations on dominant suppliers of local access links. Progress should be tracked by monitoring the percentage of firms in every country with Virtual Private Network (VPN) and international VPN connections.

International Dimension

13. Action to remove barriers to European businesses competing in global markets, such as the ring fencing of public procurement for US SMEs, is also a priority. The European Commission should press for general application of the WTO Telecommunications Reference Paper in a manner facilitating global deployment of the software platforms which are needed to support business-grade services.

A 100% Connected Economy with Open and High Speed Internet for All

14. Research for Cisco by Oxford University's Said Business School and the University of Oviedo's Department of Applied Economics suggests that many European countries are falling behind world leaders in Asia in fibre connectivity. The researchers estimated that countries would need an average download speed of 11.25Mbps and an upload speed of 5Mbps in order to be comfortably placed for future applications, such as watching high-definition video. While Sweden, Netherlands, Luxembourg and Denmark (and Norway) were among the nine countries identified as ready for future demand, Japan and South Korea were forging ahead with the latter promising universal speeds of up to 1 gigabit per second (Gbps) by 2012. Some European countries are adopting national broadband or wider digital strategies and committing public funds, such as Germany, France and Finland. Finland is aiming for 99% of households and business to 100Mbit/s by 2015. However, others are lagging even further behind. Wireless broadband in Europe is also comparatively neither widely available nor affordable. This is partly due to the artificially high costs of data transmission.

15. A policy and regulatory framework, which promotes competition and innovation, rewards private investment and recognises risk, is generally the right approach.

16. The UK has been a world leader in DSL coverage and broadband penetration, with some of the lowest prices and highest take-up rates and analysis for the UK's communications industries independent regulator Ofcom shows that around 85% of the population could have 2 Mbps today with no specific action. The research for Cisco listed the UK among the countries whose broadband is "meeting needs for today" and ranked it 25th in the broadband leadership index.

17. The *Digital Britain* report, published this year by the UK Government with the aim of securing the UK's position as one of the world's leading digital economies, concluded that to use a reasonably broad range of Internet-based services it is necessary to have access to a download connection of at least 2Mbit/s and recommended a 2Mbit/s universal service commitment for broadband by 2012. In order to deliver this commitment beyond 85% of the UK's population, £200 million of funding will be transferred from an under-spend in the digital switchover help fund. The rapid deployment of this service must be ensured around the UK.

18. The UK Government states in *Digital Britain* that it believes the case is made for the desirability of next generation networks, with significantly higher broadband speeds, typically in excess of 20Mbit/s, being available to the large majority of the UK population. A report by Analysys Mason for the Broadband Stakeholder Group calculated that a UK-wide Fibre to the Cabinet (FTTC) network would cost £5.1 billion, with a nationwide Fibre to the Home (FTTH) costing up to £29 billion.

19. BT's local access division Openreach is deploying FTTC technology at 29 exchanges across the UK. This will bring speeds of up to 40Mb/s – and potentially 60Mb/s. Belfast, Cardiff, Edinburgh, Glasgow, London and Greater Manchester will be the first locations to benefit from this initial deployment. BT has pledged to spend £1.5 billion by 2012 to ensure that 40% of UK homes and businesses – some 10 million premises - can access fibre-based services. It is hoped that, with the roll-out not proving as expensive as previously thought, a modified strategy will now deliver broadband speeds of up to 100 mbps through the existing network. Previously, this was only planned for new developments.

20. The increasing momentum behind this commercially funded roll-out is welcome, but there is recognition that it is unlikely to extend to rural and remote areas. *Digital Britain* acknowledged that the commercial deployment of next generation access is unlikely to reach more than two-thirds of UK households because of the higher deployment costs per user outside urban areas, the longer lengths of phone lines to replace with fibres and the need to build more new cabinets. It has proposed to introduce a £0.50 monthly levy on all fixed lines to provide funding to support the deployment to over 90% of the UK by 2017 – the Final Third Project. SCDI strongly supports the inclusion of this policy in this year's UK Finance Bill.

<u>Rural Areas – A Case Study</u>

21. The UK Government's official adviser on the rural economy, the Commission on Rural Communities has concludes that more than a quarter of those who live outside towns and cities either do not have broadband or can only get it at speeds much less than 2 mbps compared to about 5% of people in urban areas.

22. Challenges and opportunities in offering next generation access to Europe's rural areas where it is less commercially attractive are shown in *Telecoms connectivity in the*

Highlands and Islands, a recent report by Analysys Mason for Highlands and Islands Enterprise, which is the enterprise network for the north of Scotland.

23. The vast majority of phone lines in the Highlands and Islands are connected to ADSL exchanges. Indeed, the level of ADSL coverage in many major economies is lower than estimated for the Highlands and Islands i.e. 95% compared to 90% in Germany and 78% in the US. The Highlands and Islands also have a high take-up of broadband services. By the end of 2008, just over 60% of phone lines had a broadband connection, with the UK average at 58% and Scotland at 53%. This coverage has supported the success of the region's creative industries.

24. However, there is limited 3G coverage outside of the regional capital Inverness. It is estimated that 28% of phone line in the Highlands and Islands are unable to receive broadband services at a speed of 2Mbit/s or greater, compared to 11% of the UK, which is mainly due to both the nature of the telecoms infrastructure. There are over 80 exchanges which provide broadband using Exchange Activate with connection speed limited to 0.5Mbit/s and there is some evidence that this limited capacity may actually be limiting broadband take-up in those areas. Finally, 5% of phones lines are unable to receive any ADSL services at all.

25. BT's Broadband Enabling Technology trials in the region have proved successful a technical sense and offer the opportunity for 2Mbps broadband services to be delivered to remote locations. The system will now be rolled out in eight more locations across the UK. However, wider roll-out is subject to funding availability.

26. Analysys Mason has estimated that would cost £81 million to deploy FTTC to all of the Highlands and Islands, and that FTTH would cost up to £480 million. The average cost for rolling out FTTC in the Highlands and Islands is significantly greater than for the UK as a whole, at +86% for FTTC and +93% FTTH.

27. Based on these costs and the level of investment planned by BT Openreach in FTTC, Analysis Mason has estimated that the commercial roll-out of next generation access in the Highlands and Islands could approach 40% of premises. However, for the other 60% of consumers and businesses in the Highlands and Islands, there is a £68 million funding gap. Analysis Mason suggests that the private sector will invest around £22 million, assuming they invest at the same level per premises as in urban areas, and that the levy proposed in *Digital Britain* will contribute a further £24 million which together would deliver next generation access to 85% of the Highlands and Islands, comparable to the roll-out of first generation broadband. However, this leaves additional funding of £24 million for the final 15% of the Highlands and Islands.

28. It has been estimated that including rural areas in the UK's digital future could help to release around £347bn into England's economy alone. Making next generation access available to as much of the UK's population as possible will therefore benefit the economy as well as extending further opportunities to all. If not, there is a risk that rural firms will move from the countryside to urban areas.

29. The public sector at regional, devolved, national and European levels should therefore investigate ways of extending next generation access in Europe. This will involve stimulating and registering demand from consumers and businesses, and providing additional incentives and funding which maximise coverage. With rural incomes often lower, affordable access should also be a key concern. In order to monitor progress

across Europe, the EU, national, devolved and regional administrations should establish clear metrics to benchmark their performance.

30. In any event, it will take time for next generation access to be delivered to many rural areas. Coverage may not reach the Highlands and Islands by 2017. In the meantime, rural areas need to take advantage of technology trials and demonstrations to achieve some earlier roll-out. The UK Government has recently announced that scientists from the University of Aberdeen will be awarded £12 million over five years to research how new digital technologies can benefit rural communities and businesses, and this work will offer opportunities.

<u>Mobile Broadband</u>

31. The availability of mobile broadband is limited to urban areas of the UK. Following the publication of the Digital Britain by the Government, it is expected that mobile operators will gain access to new spectrum that will allow them to increase 3G coverage to match 2G coverage in the medium term. This would include all major settlements and transport routes in rural areas. Operators need to be encouraged to deploy mobile broadband once new spectrum is available.

<u>Mobile Coverage</u>

32. Research recently published for the Consumer Panel showed that 56% of consumers and 91% of UK small businesses have experienced problems with mobile coverage, 33% and 34% of them regularly. The most common problem, experienced by 80% of small businesses, 24% of them regularly, are ‘not-spots’, where they receive no coverage at all. In Scotland, the overall picture is slightly worse than for the UK with 58% of consumers and small businesses, experiencing problems with their mobile coverage, 41% of them regularly. This basic coverage for voice calls is essential for small businesses to compete. EU funding has previously helped to support the provision of mobile coverage. It is recommended that Ofcom should work with mobile network providers to 2G improve coverage, including efforts to enhance coverage while on the move.

Raising Europe’s Performance in ICT Research and Innovation

33. The development of genuine cross-European programmes of innovation and research that linking academia, business and communities will be challenging. EU funding for R&D should therefore ensure that development of interoperability standards is included in them to support the Single European Information Space.

34. With most of the next generation of technology companies expected to be small and locally owned organisations, consideration should be given to providing greater emphasis on creating innovation and innovation frameworks that SMEs can engage with and reducing the barriers to their involvement. National, devolved and regional levels should support this through new models of engagement which significantly increase the ability of their SMEs to participate.

35. The UK’s new research hubs will focus on designing and applying new digital technologies, utilising wireless networks and GPS, which make a real difference to quality of life. Successful applications should be licensed and commercialised.

An Information Society with Innovative and Accessible Public Services

36. Connecting everyone with digital technology can transform quality of life and radically improve the way people live, work, play, travel and access services.

37. Around 10 million people in the UK have never used the internet. Of these it is estimated by the UK's Digital Inclusion Champion Martha Lane Fox that 4 million are excluded due to the issues of affordability, accessibility, privacy and security. She believes that £22bn could be saved on education, employment and health in the UK if everyone was online, with opportunities extended to more children. She has identified peer-to-peer training and mentoring as playing a key role in raising awareness, and the option of pre-paid credit cards is being researched as a possible solution to affordability issues, but generally poor literacy is a barrier.

38. It is important that the EU and government at all levels promote a greater understanding of the opportunities enabled by ICT in education and skills.

39. There are particular opportunities with eHealth. Spending on healthcare has grown faster than GDP in most EU member states over the last 40 years and it is projected to grow further as populations age and medicine advances. eHealth can support the delivery of more personalised, effective and efficient services. For example, the UK's new research hubs are researching a small wireless body system monitoring kit which would revolutionise emergency response systems.

Assisting the Transition to a Low Carbon Economy

40. The Smart 2020 report published by the Global e-Sustainability Initiative found that smarter use of ICT solutions could reduce global CO_2 emissions by up to 15% by 2020. For instance, smart electricity meters and smart grids which, will be enabled by digital technologies, will have critical roles in meeting Europe's climate change, renewable energy and energy efficiency commitments for 2020. Investments are needed to develop new ICT solutions that help organisations and individuals use less energy. With energy security a European priority, the European Union can help to inform Europe's public and provide incentives.

41. Digital technologies can support climate change mitigation and adaptation. For example, the UK's new research hubs are investigating a combination of social networking systems such as Twitter with GPS technology to develop car sharing networks, connecting individuals and coordinating offers and requests in real time on mobile devices, and integrated transport information systems to provide up to minute travel planning advice across all modes of transport. They are also researching early warning flood systems for rural residents and businesses. Better access to ICT and state-of-the-art video conferencing can promote flexible working and home working, and reduce the need for some business travel.

42. The ICT industry is taking steps to reduce its own carbon footprint. With Scotland's onshore and offshore wind resources, 25% of Europe's wave energy potential and 10% of its tidal, plans for green data centres are being progressed. These can assist Europe's transition to Connected and Low Carbon Economy.

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