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The European ICT Industry: Overcoming the Crisis and Helping Others along the Way

Hara Klasina

The financial crisis that started in the summer of 2007 and the subsequent economic downturn have left few business sectors unscathed. Along with other sectors, Information and Communication Technologies (ICT) has felt the impact. However, crisis can sometimes be an opportunity for growth, a time when (out of necessity) new business models and innovations arise. This article briefly reviews how the crisis has affected the European ICT industry, discusses how the industry will overcome the challenges it is currently facing and finally demonstrates how ICT enables other sectors face their own woes.

Keywords: Broadband, Digital Recovery, DigitalEurope, EU eSkills Week 2010, i2010 High Level Group, ICT Industry, Next Generation Networks, OECD, Recession, R&D investment.

1 Introduction

The financial crisis that started in the summer of 2007 and the subsequent economic downturn have left few business sectors unscathed. Along with other sectors, ICT has felt the impact. However, crisis can sometimes be an opportunity for growth, a time when (out of necessity) new business models and innovations arise. A recent Organisation for Economic Co-operation and Development (OECD) report cites the example of budget airlines: they grew dramatically during the recession in the early 1990s [1]. Just as consumers surged towards no-frills flights during that time, today's businesses are bound to surge towards innovative and cost effective ICT solutions that increase efficiency and enhance productivity. This article briefly reviews how the crisis has affected the European ICT industry, discusses how the industry will overcome the challenges it is currently facing and finally demonstrates how ICT enables other sectors face their own woes.

2 The Effect of the Crisis on the ICT Industry

Even though diminishing consumer confidence and restrictions on capital expenditure have driven down the demand for ICT services and products, growth in the sector has not collapsed as was the case when the so-called "Internet bubble" burst in 2001-2002; according to statistics cited in a recent paper by the European Commission's i2010 High Level Group, in 2008 the growth of the ICT sector in Western Europe was estimated at 1.2 per cent [2]. At least in part, growth has not collapsed due to the restructuring the sector underwent at the time and which rendered businesses more resilient. However, the most important factor probably lies elsewhere. Implementing the most innovative ICT solutions in the supply chain has helped the ICT industry adapt much quicker (compared to other industries) to the crisis through instantly reducing production rates where and when appropriate. This has been a significant advantage compared to the downturn in 2001-2002.

It also seems that different parts of the ICT industry have been affected to different degrees. Impact on the demand for software, IT services and telecommunications services has been mild; on the other hand, the consumer electronics and the ICT manufacturing sectors (especially when it comes to semiconductors) have suffered more [2].

As far as employment levels are concerned, the OECD reports that in 2009 ICT employment "is performing reasonably well" compared to general employment levels, particularly when compared to sectors such as the automotive

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industry and finance [3]. The exception is the Internet firms: the top 10 Internet firms in OECD countries have announced 2% job cuts of their total workforce in 2009 [3].

What lies ahead for the European ICT sector? Will recovery be timely and swift or slow-coming and painful? Experts are being cautiously optimistic about economic recovery in general and estimate it will start only in late 2009; predictions at this stage are difficult [1]. Having said that, the ICT sector has two big advantages. First, ICT infrastructures are crucial to businesses of all kinds and thus investment in relevant products and services is unlikely to be negatively affected for long. And secondly, ICT holds the key to recovery for all sectors: in a time of tight budgets, efficiency and cost reduction are the holy grail, a grail which comes within reach through using ICT products. In the following sections we will discuss on the one hand how the digital technology sector can overcome the crisis it is facing, and on the other how digital technology can be a catalyst for the recovery of the economy at large.

3 Overcoming the Crisis on the Home Front

In simple terms, the ICT industry will return to rude health if consumers and businesses continue to invest in its products at a relatively high rate. In turn, such investment will continue to take place if the industry's products are consistently highly innovative and offer better value for money than ever before. It is therefore imperative that, even as companies in the sector endeavour to cut costs, they do not decrease investment in Research and Development (R&D). At the same time, private and public R&D investment should cater to the short innovation cycles typical in the ICT industry.

It is also widely acknowledged that recovery of the ICT sector is intrinsically linked to upgrading network infrastructures around Europe. Fast and reliable Internet connection is key to making available and creating demand for a host of new digital services and content. Given that rates for commercial lending are currently high and credit is not readily available, there is a danger that rolling out next generation networks (NGN) will be stalled. Consequently the public sector should step in and make the necessary investments in NGN deployment. The 1 billion euros funding for rolling out broadband in rural areas announced in the European Commission's recovery plan of November 2008 [4] is certainly a step in the right direction; it remains to be seen how EU Member States will implement this promise in practice and utilise the funding available via the European Agricultural Fund for Rural Development.

Broadband investment aside, it is difficult to overstate the importance of equipping the general population with sound eSkills and sustaining a pool of bright and well educated ICT practitioners; the two are sine qua non conditions for a vibrant digital technology industry. As far as the general population is concerned, technology-savvy users utilise ICT products and services intensively and are bound to conduct large parts of their lives online: shopping, consuming digital content, banking, filing their taxes, etc. As far as the ICT industry per se is concerned, it is crucial that, even as industry players are rationalising their workforces, young people are being encouraged to undertake degrees in science and follow careers as ICT practitioners. Once the crisis is over, companies will be looking to recruit large numbers of computer engineers and software architects; this implies that industry, national governments and the EU must encourage secondary school students today to graduate with ICT-related degrees in four to five years time. Initiatives such as EU eSkills Week 2010, to be funded by the European Commission, are of crucial importance in this context. The Week, which will take place in March 2010, will be an awareness campaign on the significance of eSkills both for the general population and for people considering higher education or a career change. It is imperative that industry works closely with national educational authorities and the European Commission on such initiatives so as to reiterate the crucial role ICT skills play in people's life and work choices.

Returning to measures national governments of EU Member States can take to help the ICT sector emerge from the financial crisis, we should not overlook measures encouraging the entry and growth of new players in the market. This is an often repeated argument when discussing how to increase the competitiveness of the European industry as a whole and of course holds true in the current economic situation. Encouraging venture capitalists to invest in new businesses, reducing red tape for setting up new companies and providing favourable conditions for restructuring ailing companies are measures which would give impetus to new entrants in digital economy markets and inject the sector with new innovative products.

4 A Catalyst for Recovery at Large

The digital technology industry provides the necessary tools for addressing the biggest challenge that businesses in all sectors face in the current economic climate: how to rationalise costs and at the same time sustain high demand for their products. In today's world, and even more so in the near future, all European industry sectors can stay competitive only if they implement the right ICT solutions and have access to the corresponding eSkilled workforce.

ICT increases efficiency and brings costs down in numerous ways. To take two obvious examples, the crisis has lead to increased use of teleconferencing (as travel budgets have been restricted) and teleworking (as pressure to decrease overheads has increased). However, the biggest efficiency gains probably lie in the field of energy. The European Commission estimates that ICT-based monitoring and managing of resources can reduce energy consumption in buildings by 17 per cent [5], whereas smart electricity grids also contribute to energy efficiency. The latter are a prerequisite for feeding into the networks electricity generated from renewable energy sources. Aside from the environmental benefits of such technologies (it is estimated that ICT can lead to a 15 per cent reduction of carbon emissions [6]) it is clear that ICT can lower operational costs signifi-

cantly.

Sustaining high demand for products is intrinsically linked to being able to continuously innovate and offer good value for money. Again ICT is key here, as it facilitates designing new or improving existing goods and services.

When it comes to overcoming the crisis, by far the most important offering of the digital technology industry to all sectors is broadband. A fast Internet connection encourages eCommerce and the creation of new digital content and services, makes internal company processes more efficient, facilitates developing new e-business value chains, enables cloud computing and allows collaborative R&D [1]. All in all, broadband, powered by NGN, is an engine for growth, productivity and job creation in Europe.

5 Challenges and Opportunities

The European ICT industry, for all the challenges it is currently facing, is bound to emerge from the crisis and surge ahead through innovation and efficiency, aided by high speed Internet connections, a workforce dextrous in eSkills and the growing demand for cutting back on energy consumption. In the process of doing so, the industry is acting as a key enabler for the recovery of the economy as a whole. In fact this theme will be explored in an economic study, to be published in autumn 2009, which has been commissioned by DIGITALEUROPE, the leading advocacy organisation for the European ICT industry [7]. The study is being conducted jointly by Forrester Research and Dr. Jonathan Liebenau from the London School of Economics. As DIGITALEUROPE already declared in March this year, the recovery will indeed be digital [8].

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