

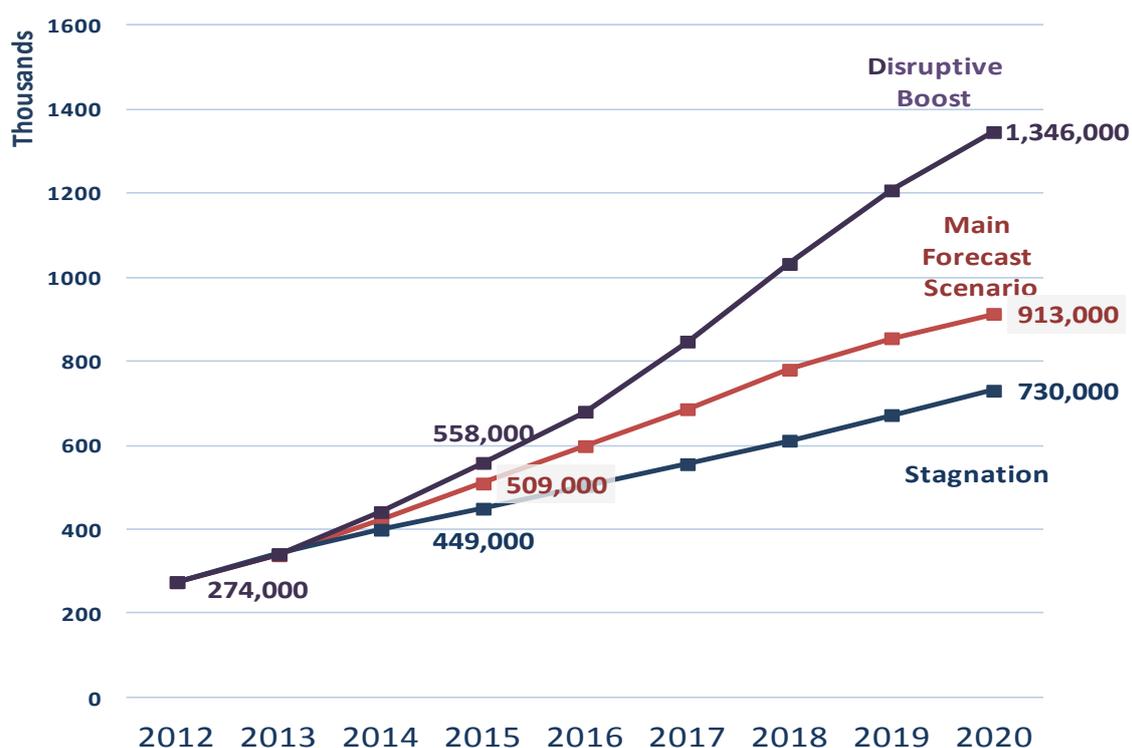
### +++ Press Release +++

## e-SKILLS GAP AND DIGITAL JOBS VACANCIES TO INCREASE: Potential for more than half a million unfilled new jobs for ICT practitioners by 2015 in Europe – To fill these jobs, many Member States need to step up policy action

Brussels, << date >>. In Europe the demand for ICT practitioners, with growth of around 4% a year is outstripping supply resulting in a shortage of 509,000 jobs in 2015 compared to 274,000 today. This figure could even increase to almost one million by 2020. This shortage is caused by lack of relevant e-skills. The bottlenecks are largest in the UK, Germany, and Italy - which together would account 60% of all vacancies in Europe. Many of these potential vacancies are likely to remain unfilled unless more is done to attract young people into ICT education, and to retrain unemployed people. These are some of the key results from the continuous monitoring of the supply and demand of e-skills across Europe and the benchmarking of national policy initiatives and multi-stakeholder partnerships in the EU released today. "Urgent policy action and stakeholder initiatives are required and need to be undertaken to fill this gap. The good news is that policy activity in relation to e-skills has significantly increased at national level over the past five years. However, there are sharp differences between countries" says Werner B. Korte, director of empirica, the company which has been contracted by the Commission to carry out the research.

The authors also expect the trend towards higher-level skills in ICT jobs to continue. The main forecast scenario suggests that by 2020 the number of ICT management, architecture and analysis jobs grows by 44% compared to 2011, and the number of professional level jobs by 16%, while technician jobs will continue to disappear as a result of automation, off-shoring, and productivity gains. Consequently, the study claims that there is a corresponding need to increase the quality and relevance of e-skills available in the labour market, particularly since the supply of university graduates is not keeping pace.

### e-Skills shortages (potential vacancies) in Europe (EU27) from 2012 – 2020: comparison of the three scenarios



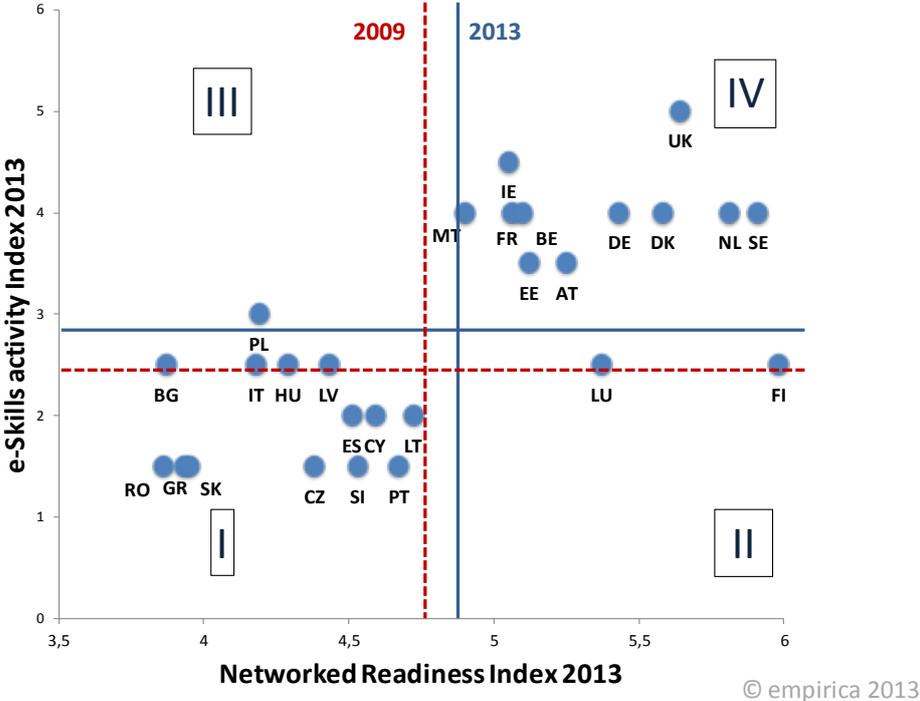
Source: empirica 2013

The significant growth in highly skilled jobs, such as management, architecture and analytics positions, reinforces the need for what has been termed "e-Leadership skills", a combination of technical, business and leadership skills and competences. Since these positions are usually filled by recruits from a pool of seasoned practitioners and other (non-ICT) managers, the study anticipates recruitment bottlenecks over time.

The pace of change in ICT jobs is also leading to new job profiles - such as Big Data and Cloud computing specialists, rather than classic ICT jobs - which are not yet fully covered in statistical classification. New jobs are likely to be created in all industry sectors, and beyond the traditional pathway of ICT studies, but with a strong imperative for ICT to permeate other and new educational trajectories. The tradition in the ICT profession for "outsiders" – in terms of formal education or career trajectory – to play a crucial role is likely to continue, but so too is the newer demand for constant professionalization through formal qualifications. But these need not be the consequence of primary university or vocational education, and can instead be acquired later in the career. There is a great need today for new education approaches, new modes of delivery, better curricula and learning outcomes to fill this gap.

Governments in Europe are increasing their efforts to address the skill shortage through dedicated policies, initiatives and partnerships, although most countries still lack a strategy, or continuity across the policy areas concerned. Tobias Hüsing, project manager at empirica and responsible for the national e-skills policy analysis, monitoring and benchmarking states: "The country-by-country results clearly show where activity levels and progress are at an appropriate level, and where there is a lag in policy development and implementation to close the e-skills gap." Of the then-27 Member States, 12 show a value of 3 or higher on the 5-point index scale for e-skills activity. The leading countries, the UK, Ireland, Belgium, Germany, Denmark, France, Malta, the Netherlands and Sweden, also perform strongly in activity for ensuring adequate supplies of ICT practitioners on the labour market today and in the future.

**European Country Landscape on 'e-Skills Policy Activity' versus 'Innovation Capability' 2013**



Source: empirica 2013

The degree of integration and consistency of policy-making is still limited in many Member States, where there is no master strategy or no continuous attention across policy areas. It is striking that countries with significant activity in the e-skills domain also have the highest share of ICT workers in their workforce, and rank highest on innovation and competitiveness indices such as the Networked Readiness Index (NRI), which measures the capacities of economies to leverage ICT for increased competitiveness and development. Some countries which could be described as latecomers have become more active recently. Lithuania and Poland have started e-skills programmes as national Grand Coalitions for Digital Jobs, as part of the Commission initiative with the same name. Ten further Member States, mainly from Southern and Eastern Europe, are also planning to launch national programmes.

The European e-Skills Conference on 10 December 2013 ([www.eskills2013.eu](http://www.eskills2013.eu)), which gathered over 300 experts on the topic and where the results of this research were discussed, concluded that Europe is on the right track but still a lot needs to be done at national Member State level to ensure that the knowledge, skills, competences, and inventiveness of the European workforce - including ICT professionals - meet the highest world standards, and are constantly updated in a process of effective lifelong learning.

Interested parties can download the two reports and 27 Country Reports describing in detail the situation in each of the - at that time - 27 EU Member States at the European Commission's website:

[http://ec.europa.eu/enterprise/sectors/ict/documents/e-skills/index\\_en.htm](http://ec.europa.eu/enterprise/sectors/ict/documents/e-skills/index_en.htm)  
(coming soon) or

<http://eskills-monitor2013.eu/results/> or  
<http://eskills2013.eu/conference/documents/>.

## **Background**

The first European policy response to the e-skills challenge found concrete shape in the European Commission's Communication on "e-Skills for the 21<sup>st</sup> Century" in September 2007. Further impetus came from the 2010 launch of the "Digital Agenda for Europe", and the Employment Package "Towards a Job-rich Recovery" from 2012, with their renewed proposals on tackling the e-skills challenge. More recently, the "Grand Coalition for Digital Jobs" was launched by President Barroso at the "e-Skills and Education for Digital Jobs" conference on 4 March 2013 in Brussels. Heads of States and of Government discussed this issue at the European Council on 24-25 October 2013.

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