



Back to the news list The top ICT skills in demand by companies today

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Competitiveness, innovation and job creation in Europe are increasingly driven by the use of new information and communication technologies (ICT). Which ICT skills are most needed today, and where?



In a constantly evolving environment, companies and public services need to further invest in advanced digital technologies such as mobile communications, cloud computing, big data analytics and smart devices. The demand for digital technology professionals has grown by 4% annually in the past 10 years, according to a document by the European Commission.

EU policies have given greater attention to ICT skills in recent years, in particular to the employment of ICT specialists. The recently updated Digital Single Market strategy emphasises the need for policies designed to boost stability in European labour markets and improve the EU's competitive position. This

is why monitoring the employment of ICT specialists is crucial, as pointed out in a Eurostat article. For example, the adoption of “cloud computing” has the potential to generate about 2.5 million jobs by 2020, according to a study prepared for the European Commission, DG Communications Networks, Content & Technology. Cloud computing involves storing and accessing data and programmes over the Internet instead of a proprietary hard drive or local storage device.

According to Eurostat data, about 8 million people were employed in 2015 as ICT specialists, representing 3.5% of total employment in the EU. Over recent years, both the number and the share of ICT specialists in total employment have continuously increased. Europe’s Digital Progress Report 2017 showed that the share of ICT jobs in total employment rose 35% between 2005 and 2015.

However, companies across Europe are struggling to find the right ICT specialists to support them. In the same digital progress report mentioned above, the Commission predicted that the gap between the demand and supply of ICT specialists will grow from 373 000 in 2005 to about 500 000 by 2020. This difference is the origin of what is termed the digital skills gap.

Addressing ICT skills shortages

As part of the New Skills Agenda for Europe to ensure that the right training, skills and support are available to EU citizens, the Commission launched the Digital Skills and Jobs Coalition in 2016. This coalition supports cooperation among education, employment and industry stakeholders with the goal of improving the digital skills of both ICT professionals and the wider population.

The coalition is also a supporter of DG CNECT’s Digital Opportunity traineeships initiative. Hosted on Drop'pin@EURES, this initiative aims to strengthen digital skills by providing cross-border traineeships for up to 6,000 students and recent graduates from 2018-2020.

What are the new skills most in demand for ICT?

According to a paper by DIGITALEUROPE, the association representing the ICT industry in Europe, these areas include:

- Digital Security;
- Business Networks;
- Big Data Analytics;
- Internet of Things;
- Mobile Technologies;
- Cloud Computing;
- Business Change Management;
- InMemory Database;

- Integrated Product Service;
- Smart Grid Technologies or Novel Interfaces.

Another report, The Harvey Nash/KPMG CIO Survey 2017, found that big data/analytics, business analysis and enterprise architecture are the most in-demand ICT skills. The report said: "While the fastest growing demand for a technology skill this year [2017] was enterprise architecture, big data/analytics remained the most in-demand skill at 42 %, up 8 % over last year."

Hotspots of ICT employment in Europe

According to Europe's Digital Progress Report 2017, all EU Member States saw an important increase in ICT specialist employment between 2005 and 2015. The largest increases occurred in Germany, France, the UK and Italy. The same report shows that in 2015, the Member States with the highest shares of ICT specialists in total employment were Finland (6.5 %), Sweden (6.1 %), the Netherlands and the UK (both 5 %).

The UK employs the largest number of ICT specialists (1.54 million in 2015), although Germany (1.47 million) has nearly doubled its ICT employment over the past decade.

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