



Cloud computing: a potential job boost

The European Commission (EC) published its [strategy on cloud computing](#) on 27 September 2012. It predicts annual gains of €160 billion to EU GDP and the creation of 2.5 million new jobs by 2020, if the strategy is fully implemented. However, a number of obstacles could slow down progress.

Background

Cloud computing describes a key development in the information and communications technology (ICT) landscape: computing resources and services are provided on demand on-line, and stored on remote servers. 'The cloud' is where these resources come together. It can be either public or private, depending on its user group. Cloud computing is not entirely new – web-based e-mail and office applications have been around for a while – but it is far from reaching its peak.

ICT research company Gartner [reports](#) that public cloud services will increase by 20% in 2012, and the global cloud market will double by 2016. According to several studies from industry ([SAP](#), [Microsoft](#)) and a study by [IDC](#) on which the EC's [strategy](#) is based, cloud computing will lead to a major shift in ICT and create a global 'cloud economy'. The driving forces are more flexibility and productivity, at a lower price: reduced ICT spending, rapidly scalable resources and serving more customers for a given cost. SMEs could particularly benefit through low barriers to entry and plenty of new business opportunities. In the EU, [99% of all enterprises are SMEs](#) providing [two out of three private sector jobs](#). Yet they are currently the most reluctant to use cloud computing services, reports [IDC](#).

Employment effects

In 2010, the [University of Milan](#) predicted that cloud computing could create up to 1.5 million new jobs by 2015 and lead to hundreds of thousands of new SMEs, mostly in Italy, Spain, France, Germany and the UK. A 2011 study by the [London School of Economics](#) (LSE) was equally confident: cloud computing stimulates both short- and long-term employment,

especially through the creation of data centres and public cloud services firms. Growth in employment depends strongly on the sector: e.g. cloud-related jobs in smart-phone services in Germany will grow by 280% between 2010 and 2014. A [study](#) prepared for the European Parliament in 2011 expects a shift in job requirements from technical to more administrative and strategic tasks. [Forbes magazine](#) reports that new jobs will include cloud architects and integration specialists.

Policy action

The positive impact of cloud computing on job creation is widely recognised, but there is much controversy about data protection and security. Fragmented legal regimes, lack of standards, and certification are pressing issues. In its [strategy](#), the EC committed to develop three priority actions by the end of 2013:

- common standards and interoperability;
- safe and fair contract terms and conditions;
- a European cloud partnership with Member States and industry

To gain the full benefits of cloud computing and to remain globally competitive, speed of adoption is vital. The [LSE](#) assumes that half the jobs generated by public cloud services will be in the US. [IDC](#) states that the US cloud market is years ahead of Europe's: In 2011, European companies dedicated only [1.6% of their ICT spending to public cloud services](#). To steer investment and to strengthen the [digital single market](#) a strong policy framework is needed.

Reactions

[Microsoft](#) and [BSA](#) called the [strategy](#) an important step in returning to jobs and growth. [ETNO](#) promised full support for the EC's efforts. [Digital Europe](#) spoke of a clear vision but claimed that a long-term global perspective was missing. [BEUC](#) said that it lacked ambition and failed to protect consumer interests. [Ovum](#) warned of raising unrealistic expectations within companies. The [Financial Times](#) noted that the [strategy](#) comes at a time when the EU's global ICT market share is falling due to under-investment.