

# Despite Weak Economy, Skilled ICT Staff Still Needed in Europe

*An IDC White Paper  
Sponsored by CompTIA and VUE*

## **EUROPEAN ORGANIZATIONS CONTINUE TO FACE SKILLS SHORTAGE**

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Over the past five years, IDC has tracked the extent of the information and communication technology (ICT) skills shortage in Western Europe. IDC's updated forecast shows that despite the economic downturn that started affecting European countries in 2001, the skills shortage is still significant, with a lack of more than 1.1 million skilled ICT professionals in 2001.

The wake of redundancies (i.e., personnel cutbacks) has led to misconceptions in the industry that the skills shortage was over. However, IDC's research shows that although the shortage was less severe in 2001 than in 2000, it has not disappeared. Generally, the redundancies did not hit qualified ICT staff with skills in areas that are in high demand, such as networking skills. Consequently, the skills shortage is still affecting Western Europe despite the economic slowdown, and IDC's research shows that the skills gap will represent a shortage of about 12% by 2005.

Overall, European organizations continue to face a significant shortage of skilled ICT staff. Indeed, as shown in Table 1, IDC predicts that the shortage will increase from more than 1.1 million professionals in 2001 to almost 1.7 million ICT professionals by 2005, representing a shortage of 12%.

## **METHODOLOGY**

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As part of our continuous tracking of the ICT services industry, IDC regularly reviews the level of demand for and supply of skilled professionals. We collect information through interviews with IS managers across Europe and official sources, such as output levels from universities and other educational establishments, government initiatives, and country economic indicators. This information, in combination with IDC's own data on the ICT industry, is input into IDC's IT Workforce Model and is the basis for the information contained in this white paper.

## **SKILLS GAP BY COUNTRY**

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In absolute terms, ICT skills shortages will increase in every Western European country between 2000 and 2005, as shown in Table 2. In relative terms, Austria, Switzerland, and Spain are projected to have the greatest percentage of skills shortages by 2005. In absolute terms, Germany, France, and the United Kingdom — the largest economies in Europe — have the largest overall skills shortages in 2001 and are projected to have the largest absolute skills shortages by 2005.

- **Germany.** Germany, which has Europe's largest economy, will experience the highest level of skills shortage over the period in absolute terms. Although the country has felt the economic slowdown acutely, there is still increasing demand for skills, especially around IP-based infrastructures.

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- **France.** Overall, for the forecast period, the skills shortage in France is smaller than that in Germany and the United Kingdom. The main reason is that France has been slower to adopt Internet-based computing due to the Minitel acquisition. In 2001, the shortage of networking skills in France was 14% versus 23% and 21% for Germany and the United Kingdom, respectively.
- **The United Kingdom.** The shortage in the United Kingdom — in absolute and relative terms — is less than the shortage in Germany. First, the United Kingdom has a smaller economy than Germany. Second, and perhaps more important, U.K. organizations have a higher propensity to outsource ICT and business functions and were early adopters of the xSP model (e.g., datacenter outsourcing and application outsourcing). These factors influence the demand for application skills in the United Kingdom and explain why the application skills shortage in the United Kingdom was 10% in 2000 compared with 13% in Germany.

**Table 1: Western European Total IT Skills Shortage, 2000–2005**

	2000	2001	2002	2003	2004	2005
Demand	10,368,851	10,957,538	11,837,533	12,874,484	13,614,357	14,302,430
Supply	9,216,104	9,821,918	10,580,954	11,288,395	11,974,980	12,634,371
Shortage	1,152,747	1,135,620	1,256,579	1,586,089	1,639,377	1,668,058
% shortage	11%	10%	11%	12%	12%	12%

Source: IDC, 2002

### The Shortage of ICT Skills Remains In Europe

European organizations continue to be affected by the ICT skills shortage, which, if not addressed, will continue to create a bottleneck for the adoption of new technologies and the operation and management of existing ICT systems. Overall, the shortage of ICT skills in Western Europe will increase at a compound annual growth rate (CAGR) of 8% from 2000 to 2005. The development in the skills shortage for the individual skills groups in Western Europe is as follows:

- The shortage of skilled networking professionals (engineers or consultants specializing in designing, implementing, and supporting networks) will increase by a 19% CAGR, indicating the growth in use of the Internet in European organizations.
- The skills shortage for distributed computing (desktop support staff and NT server analysts) will increase slightly at a 4% CAGR, affected by, among other factors, the stronger ICT skills of users (less support needed) and growing use of desktop management services.
- The shortage of application skills (Oracle consultants and ABAP programmers) is expected to be relatively flat over the forecast period as application solutions that are easier to implement and maintain continue to be developed and the trend toward application management continues to grow.
- The shortage of skills around host-based computing (DB2 database managers or CICS analysts) is expected to stay flat over the forecast period, largely due to increased efficiencies in the running, maintaining, and supporting of datacenters.

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- The shortage of technology neutral skills (business consultants with an understanding of how IT can be used to achieve business goals) will increase the most over the forecast period, at a 27% CAGR, due to the increased importance of linking business issues with the use of ICT.

**Table 2: Western European Total IT Skills Shortage by Country, 2000–2005**

	2000	2001	2002	2003	2004	2005	2000–2005 Shortage (%)
Austria	49,578	50,026	53,442	65,677	68,542	70,262	~14
Belgium	40,608	42,274	52,558	63,407	68,630	70,685	~11
Denmark	15,145	16,104	17,948	21,426	22,579	23,159	~12
Finland	11,948	13,089	14,652	18,919	17,954	18,211	~10
France	167,578	155,371	181,313	216,816	223,210	224,375	~10
Germany	272,779	280,939	289,779	387,757	393,373	395,408	~13
Greece	665	793	1,399	1,834	2,070	2,280	~8
Ireland	5,289	5,702	6,432	9,302	9,527	9,154	~12
Italy	103,224	95,936	109,183	148,871	157,486	156,890	~11
Luxembourg	518	538	688	843	837	937	~7
Netherlands	84,468	83,350	86,555	103,131	113,918	115,081	~11
Norway	13,456	14,005	16,446	21,785	22,014	22,339	~11
Portugal	13,900	16,102	19,529	25,034	27,208	27,145	~10
Spain	58,175	62,486	75,445	95,010	109,296	110,778	~12
Sweden	57,045	50,045	49,536	59,365	61,194	63,230	~11
Switzerland	43,914	42,510	45,001	59,769	61,919	64,573	~12
United Kingdom	214,456	206,351	236,674	287,142	279,620	293,551	~11
Total	1,152,747	1,135,620	1,256,579	1,586,089	1,639,377	1,668,058	~11

Source: IDC, 2002

### **WHAT IS NEEDED TO ADDRESS THE SKILLS SHORTAGE?**

Over the past few years, the extent of the skills shortage in Europe and its effect on businesses have been increasingly covered by the media, by ICT vendors, and by government bodies. The growing awareness has led diverse parties to consider measures to alleviate the shortage, especially through initiatives that can impact the supply of skills.

#### **The Role of Training and Certification**

Certification can help alleviate the skills shortage in a number of ways. The first is that certification can serve as a reliable measure of competence in the recruitment process. It is quite clear that a skills shortage exists across Europe. However, with some of the government initiatives (see The Role of Government Programs and Initiatives section), organizations have an easier time recruiting staff from non-European nationalities. In this case, the recruitment process becomes much clearer when the organization can accurately match the qualifications it is looking for with the certification that the job applicant holds, regardless of the person's country of residence. This principle also applies in the recruitment process when recruiting nationally or inside the European Union. ICT Certification therefore provides a recruiter with a globally consistent standard by which to judge potential ICT employees.

Certification can also help organizations with the retention of ICT professional staff. The past five years have shown that when there is a skills shortage, the losers are often organizations outside the ICT industry itself. Why? Ambitious ICT professionals have become attracted to the career prospects and ongoing training in new technologies that service providers and ICT industry vendors have been able to offer. Offering ICT staff certification in relevant technologies can be a means to ensure retention of key staff.

Certification is often more closely tied to industry needs and therefore can quickly match potential employees to ICT job vacancies. Governments, colleges, and training institutions offer a variety of local, national, and international education and training schemes that are used to train unskilled individuals and prepare them for careers within the ICT industry. Because ICT Certification programs have been built by the ICT industry itself, they are generally more up to date and directly relevant to the required job roles than some academic programs. In addition, a wide variety of courseware, elearning, and certification support materials exist for ICT Certification programs, making them easier to support and implement.

### **COMPTIA**

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The Computing Technology Industry Association (CompTIA) is a not-for-profit organization that represents more than 10,000 international computing and communications companies. CompTIA developed its certification programs as a direct response to the needs of the ICT industry. Its programs provide entry-level skills that help high school graduates, the unemployed, or career changers enter the ICT industry and help close the ICT skills gap. It provides certifications that enable people to progress to a wide range of ICT job roles. CompTIA offers certification in the following technology areas: A+, Network+, Server+, iNET+, IT Project+, eBiz+, CTT+, Linux+, CDIA+, and Security+.

CompTIA's A+ and Network+ are widely used as entry points for potential network administration and implementation staff. In addition, A+ and Network+ are endorsed by Microsoft, Novell, and Cisco — three of the industries leading networking solution providers. This white paper has shown that the shortage of skilled networking professionals will increase at a 19% CAGR from 2000 to 2005.

Another area of significant skills shortage is the technology-neutral area, where the shortage of skilled staff is forecast to increase at a 27% CAGR due to the increased importance of linking business issues with the use of ICT. CompTIA's eBiz+, iNet+, IT Project+, and Security+ certification programs can assist in providing the business analysis and project skills needed in this area.

### **VUE**

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VUE, the electronic testing business of NCS Pearson, is a leading provider of certification testing solutions for key ICT sponsors, including CompTIA, Microsoft, Cisco, Novell, IBM, and many others.

The VUE Authorized Testing Center network consists of more than 3,000 partnered sites in over 130 countries. With operation centers in the Netherlands, South Africa, the United States, Australia, China, India, and Japan, VUE is the preferred choice of ICT sponsors, corporations, and end users for their complete certification and licensing needs.

In addition to the ICT market, VUE as part of an NCS Pearson solution provides large-scale assessment and testing solutions for the public and private sectors, including both certification and licensing markets. Existing licensing clients include the Teacher Training Agency (TTA), the National Association of Securities Dealers (NASD-R), and the National State Board of Nursing (NASBN).