



European Foundation for the Improvement of Living and Working Conditions

Outsourcing of ICT and related services in the EU



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Outsourcing of ICT and related services in the EU

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Foreword

The international migration of service employment in the information and communication technologies (ICT) sector is growing, both between EU Member States and globally. Often referred to as 'outsourcing' or 'offshoring', this phenomenon has moved to the top of the policy agenda in recent times. It has also become the focus of significant media attention, with growing concerns that ICT-enabled relocation of work to the southern hemisphere could result in high unemployment in western Europe and the US.

Indeed, outsourcing is often considered to be driven exclusively by the search for ever-lower costs. In fact, the reality is more complex and different elements, including non-cost related factors, are among the driving forces for ICT service outsourcing, including the business function involved, company size and structure, and the specific situation in particular labour market segments and national or regional contexts. Nevertheless, current economic statistics do not provide reliable indicators of the scale or characteristics of 'offshore outsourcing'.

In order to help fill this knowledge gap, the European Monitoring Centre on Change of the European Foundation for the Improvement of Living and Working Conditions embarked on an examination of available evidence on outsourcing of ICT and related services in the European Union. Based primarily on an analysis of a body of research covering more than two decades, this report defines the scope of 'offshore outsourcing' and the services involved. It then covers issues such as the distribution of ICT service employment in Europe, driving factors of ICT service outsourcing and current trends in offshore outsourcing.

We trust this report will provide a timely contribution to the important debate on outsourcing of ICT and other services and its employment effects, at European level.

Willy Buschak
Acting Director

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Introduction

Information and communication technologies (ICT) have been used to relocate employment for many years now. Early research however, tended to focus on working from home options, such as tele-working, and relatively little attention was paid to major international or intercontinental shifts. During the latter half of the 1990s, the rapid development of an export-oriented information technology (IT) sector in many developing countries, most notably India, was generally seen as a welcome solution to the IT skills shortages experienced in the developing nations. This shortage was partly caused by the rapid growth of the 'new economy' and partly due to extra demand following the introduction of the euro and the 'millennium bug' panic. However, since the implosion of the dot.com bubble in 2000 and the consequent drop in demand for IT skills, there is now concern that ICT-enabled relocation of work to the southern hemisphere could result in unemployment in western Europe and the US.

As a result, the issue of 'offshoring' has risen to the top of the policy agenda and has become the focus of significant media attention, albeit often characterised by a somewhat hysterical tone. On the one hand, simplistic and scaremongering prophecies foretell large-scale job losses among white-collar workers in the developed world. At the same time, optimistic win-win scenarios are presented in which the globalisation of the information services market brings benefits both to developed and developing countries. Neither case is supported by much hard evidence as such evidence does not exist. Current economic statistics are simply not capable of providing us with reliable evidence of the scale or characteristics of 'offshore outsourcing'. Nevertheless, it is not a complete information vacuum. This report aims to piece together, impartially, the available evidence on outsourcing of ICT and related services in the European Union (EU) with the goal of informing the EU policymaking process. The findings of the report are made available through the European Monitoring Centre for Change (EMCC) of the European Foundation for the Improvement of Living and Working Conditions.

The report draws on a body of research carried out by the authors over more than two decades addressing 'offshore information processing', 'trans-border teleworking', 'the new global division of labour in information services' and a number of other pseudonyms for what is effectively the same phenomenon.

What is offshore outsourcing?

1

The term 'offshore outsourcing' brings together two concepts, geographical and legal.

'Offshore' – the geographical dimension

Provided the appropriate telecommunications infrastructure is in place, digitised information or voice traffic can be transmitted anywhere in the world, regardless of geographical boundaries and consequently can be relocated. A great deal of this relocation takes place within the same city, region or country, whether to an individual's home, a call centre or back office or some other remote location. A Europe-wide survey by the EMERGENCE project (funded by the European Commission under its Information Society Technologies Programme in 2000 found that only 5.3% of establishments outsourced to companies in other countries, compared with 18.3% to those in other regions within the same country and 34.5% to suppliers within the same broadly-defined (NUTS1 level) region (Huws, 2003).

It is, however, the relocation of jobs to another country which is the focus of public debate and the subject of this report. The word 'offshore' is commonly used to denote this. For many Europeans, this is a puzzling word. The American term 'offshoring' may make some sense for island nations like the UK, Ireland, Malta or Cyprus. But it is not, perhaps, the most apt term for the majority of continental Europeans who occupy the same land mass as India and China and other rival sources of ICT services in Central Asia, Russia and Eastern Europe. Some commentators prefer to refer to 'international', 'inter-continental', 'cross-border' or 'global' relocation. Despite this, we have used the term 'offshore' throughout this report as the term most popularly used.

Since the main policy interest in 'offshore outsourcing' relates to the risk of job relocation beyond national borders, we also focus on sourcing from other countries, though this approach is far from ideal. EU Member States differ greatly in size and in the degree of cooperation of national economies with those of their immediate neighbours. There is thus a considerable amount of cross-border outsourcing between, for instance, Belgium and the Netherlands, or Luxembourg and Germany, which has much of the character of local outsourcing. On the other hand, relocations within larger Member States, for instance between western Germany and the former GDR, or from the south east of England to northern Scotland, may have many of the characteristics of international outsourcing. Nevertheless, because data sources tend to break information down to the national level, this definition is proposed for practical purposes.

'Outsourcing' – the legal dimension

In its legal sense 'outsourcing' refers to a business activity, involving the production of either goods or services, purchased by an organisation from an external supplier rather than internally. It is, in other words, 'subcontracting'. However, in the current context of rapid organisational change, determining what is 'internal' and 'external' is increasingly difficult. Mergers, demergers, strategic alliances, public-private partnerships, and a variety of different forms of organisational disaggregation – including those resulting from business process re-engineering – are increasingly common. If a company is restructured on the basis of separate cost or profit centres, for instance, should transactions between them be regarded as 'outsourcing' or merely as internal accounting flows? The situation is further clouded by the use of a number of related terms, including 'co-sourcing', 'back-sourcing', 'selective sourcing', 'out-tasking' and 'multi-sourcing', to describe specific business strategies (Millar, 2002).

To make matters even more complicated, the term 'outsourcing' is often used in the media to mean simply 'carried out in another part of the world' regardless of the specific organisational or legal arrangement under which it is carried out. Whether the work is carried out under the legal auspices of a branch or subsidiary of the same company, a contract for the supply of services with an external company or some form of alliance, partnership or joint agreement, the impact on employment is likely to be broadly similar, although there may be different degrees of dependence and long-term commitment.

Results from the EMERGENCE survey showed that, in 2000, 11.8% of employers used their own employees to work from remote locations, whilst 43% used external suppliers (Huws and O'Regan, 2001). There was thus a ratio of nearly 1:4 between in-house and outsourced off-site staff suggesting that over a fifth of remote employment involves employees of the parent company. In order to take these jobs into account, we therefore use the term 'outsourcing' in a broad sense, to include both work supplied by external subcontractors and work done by another branch of the same company, sometimes referred to as 'intra-firm sourcing' or 'insourcing' (van Welsum and Vickery, 2004).

What services are involved?

2

Telecommunications networks are capable of transmitting both voice traffic and information which has been digitised, be it words, numbers, images, computer programmes or other data. This means that, in principle, any task that involves the processing of such material can be carried out remotely, using the telecommunications medium to receive and deliver the results. Given the enormous spread of ICT across virtually all sectors of the economy, this could also, in principle, mean that a very large number, even a majority, of jobs could be outsourced offshore.

In practice, there are a number of constraints on such large-scale relocation. In order to achieve a successful transfer, certain preconditions must be met. These include:

- Jobs designed so that tasks requiring face-to-face contact are separated from those which can be carried out remotely
- The work to be transferred does not depend on tacit knowledge
- Tasks are clearly defined and standardised with performance measures enabling effective monitoring of results
- Well-defined work procedures and quality control mechanisms are in place
- Good clear communication patterns exist
- Mutual cultural understanding and adjustment has been established
- A relationship of trust has been established
- Opportunities exist for face-to-face contact for conflict resolution and to ensure effective management and training (Flecker and Kirschenhofer, 2002).

In some circumstances additional constraints may come into play, including:

- Delocalisation outside national borders may be prevented by issues related to legal or professional liability
- There may be a reluctance to relocate high-value added, competition-sensitive core business activities (for instance, research and development) outside national borders (Narula, 2002).

The development of a new kind of economy has brought about a considerable convergence between economic sectors as traditionally defined, as well as giving birth to new sectors which are not yet separately identifiable in the existing statistics. It is thus no easy task to identify those sectors in which offshore outsourcing is most likely to take place, or which portions of these sectors are likely to be affected

A functional approach

The EMERGENCE survey identified seven broad groups of business functions in which established patterns of global outsourcing exist. These were:

- software development
- data processing, including data capture
- sales
- customer services
- creative and content-generating functions including research, development and design
- financial functions
- management, HR and training functions.

The survey found that software development was most likely to be outsourced, with 60% of establishments doing so. This was followed by creative and content-generating activities, at 38%, management-related activities at 19% and customer services at 18%. Other functions were outsourced at between six and nine per cent. However the number of jobs involved was very much larger when relatively low-skill tasks, such as data entry or customer service, were outsourced than in the case of higher-skilled creative and software development functions (Huws, 2003).

These functions were considered to be good criteria for carrying out a survey and were readily understood by respondents. However they do not encompass the full range of ICT-enabled activities currently involved in international outsourcing. A few examples, from a by-no-means exhaustive list of activities which do not fit easily into these categories, include:

- analysis of medical data such as MRI scans and X-rays
- monitoring of security cameras in stores and car parks
- production of estimates for engineering contracts
- production of summaries of legal judgements
- monitoring the movements of digitally-tagged criminal offenders
- logistics management and digitisation of maps.

There is every indication that the range of offshored activities will continue to increase, extending further into areas traditionally carried out by professional staff as well as technical, clerical and managerial occupations and increasingly involving public, as well as private sector activities.

A further problem with adopting a functional approach, is that it does not map neatly onto either the existing categories used in the EU's official classification system for economic sectors, NACE¹, or onto the international classification scheme for occupations, ISCO. (Huws, 2002).

A sectoral approach

When analysing the impacts of ICT on economic development, it is common to break sectors down into those which *produce* ICT and those which *use* them. This distinction is not as hard-and-fast as it might first appear, not least because ICT producers are also ICT users. However it does provide a starting point for analysis.

ICT producing sectors

The STILE project (funded by the European Commission under its Information Society Technologies Programme) developed a definition of ICT producing sectors in NACE which is presented in Table 1 (Stimson and Tielens, 2004). This illustrates very clearly the difficulty of using sectoral statistics as a starting point to measure outsourcing. At the two-digit level – the only level at which many statistics are available, activities which are connected with ICT are bundled in with others which are not (shown here in italics). Furthermore, many of the activities covered in these sectors are connected with the manufacture of products. Manufacturing activities may well be outsourced to another country, but they are not *telemediated* (i.e. capable of being transmitted over a telecommunications link) and therefore fall outside the scope of a study of ICT services.

¹ NACE is the *Nomenclature Générale des Activités Économiques dans les Communautés Européennes*, or General Industrial Classification of Economic Activities within the European Communities.

It would therefore be a gross overstatement to assume that all activities in these sectors are delocalisable. In order to obtain an approximate measure, this report takes NACE sector 72 as a proxy for measuring the scale of services involving the production of ICT. This sector undoubtedly includes a number of activities which are not telemediated. However these may be compensated for by other activities which *are* telemediated but are currently classified under the other ICT-producing sectors (30, 32, 33 and 64).

Figure 1 STILE project definition of 'ICT sectors' (NACE Rev 1.1)

30 Manufacture of office machinery and computers
30.0 Manufacture of office machinery and computers
30.010 Manufacture of office machinery
30.020 Manufacture of computers and other information processing
32 Manufacture of radio, television and communication equipment and apparatus
32.1 Manufacture of electronic valves and tubes and other electronic components
32.2 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy.
32.201 Manufacture of TV and radio transmitters
32.202 Manufacture of apparatus for line telephony and line telegraphy,
32.3 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods
33 Manufacture of medical, precision and optical instruments, watches and clocks
33.1 Manufacture of medical and surgical equipment and orthopaedic appliances
33.101 Manufacture of electrical apparatus for medicine, dentistry and veterinary medicine
33.102 Manufacture of non-electrical apparatus and instruments for medicine, dentistry and veterinary medicine
33.103 Manufacture of orthopaedic appliances
33.2 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
33.201 Manufacture of electrical instruments and appliances for measuring, checking, testing, navigating and other purposes
33.202 Manufacture of non-electrical instruments and appliances for measuring, checking, testing, navigating and other purposes
33.3 Manufacture of industrial process control equipment
33.4 Manufacture of optical instruments, photographic equipment
33.401 Manufacture of spectacles
33.402 Manufacture of optical instruments, photographic equipment
33.5 Manufacture of watches and clocks
64 Post and telecommunications
64.1 <i>Post and courier activities</i>
64.110 <i>National post activities</i>
64.120 <i>Courier activities other than national post activities</i>
64.2 Telecommunications
72 Computer and related activities
72.1 Hardware consultancy
72.2 Software consultancy and supply
72.3 Data processing
72.4 Data base activities
72.5 Maintenance and repair of office, accounting and computing machinery
72.6 Other computer related activities

Source: Camire, Steunpunt WAY, 2003

NB NACE two-digit level in bold text, ICT sectors in plain text, non-ICT but included in ICT based on two digit NACE codes in italic text (Stimson and Tielens, 2004).

ICT using sectors

ICT using sectors are considerably more difficult to define than ICT producing ones. Sectors which are heavy users of information, such as banking, financial services and government are also heavy users of ICT but these technologies are used across all sectors of developed economies for a range of different activities. Some of these may be outsourced and therefore assigned to other sectors in the statistics. We explore alternative approaches to identify sectors which are intensive users of ICT

for delocalisable activities. The first uses existing data to identify highly telemediated sectors; the second attempts an inductive approach.

Highly telemediated sectors

The first of these approaches entails finding sectors in which a high level of telemediated activity has already been recorded. We were able to find a proxy for this in an analysis of the UK Labour Force Survey which has, since 1996, been collecting data on whether people work remotely using a telecommunications link and a computer as part of their job. The types of teleworking recorded in these statistics involve working at or from home rather than from an offshore office. Nevertheless, it is reasonable to assume that if it is possible to relocate an activity to somebody's home it is also possible to relocate it elsewhere. Figure 2 shows the results of this analysis. It shows sectors in which over 10% of the workforce work at or from home using a computer and a telecommunications link listed in order of the proportion reported. In compiling this table, sectors involved in agriculture and forestry were removed, as were religious organisations and physical fitness instructors, because these are geographically 'rooted' activities. Also excluded were activities involving manufacture.

As can be seen, this list includes both ICT producing sectors and ICT using ones, with particular concentrations of the latter in the media, in research and in business services.

An inductive approach

Because the results of previous research had revealed the inadequacy of existing statistics for identifying activities involved in the new economy, the STILE project attempted a different approach. The team took a selection of real-life examples of companies involved in delocalisable activities and conducted an experiment, asking the coders in six EU statistical institutes to code them according to the NACE classification. It was reasoned that the codes assigned could then be used as the basis for further research. Unfortunately, this exercise produced a very low level of agreement. Of 150 fictional descriptions of establishments, there was total agreement on the correct code at the two-digit level in only 23% of cases. At the four-digit level, unsurprisingly, there was even less agreement. To take one example, out of 34 cases clearly involving call centres, there was full agreement on the coding between all six institutes in only three cases at the two-digit level. At the four-digit level, the code 74.86 ('call centre activities') was universally allocated to only one of the 34 cases (Huws and Van der Hallen, 2004). At a two-digit level, the two coding categories on which there was most agreement were 72 (computer and related activities) and 74 (other business activities).

Taking all these factors into account, and allowing for the fact that not all activities are outsourceable, we took a pragmatic decision to take the number of employees in NACE sector 74 as an indicator of the ICT using sectors. While it does not give us an accurate estimate of the numbers of 'offshoreable' or 'offshored' jobs in any given country, its relative growth or decline does seem to be the most meaningful sectoral indicator currently available for tracking ICT services, when combined with the employees in NACE sector 72.

Figure 2 Highly telemediated sectors

NACE Sector		% teleworkers
73.20:	Res.,social sciences, humanities	63.72
74.14:	Business,management consultancy	45.02
22.14:	Sound recording publishing	32.36
74.83:	Secretarial,translation	31.20
72.10:	Computer hardware consultancy	29.94
92.31:	Artistic,literary creation etc	29.20
22.11:	Book publishing	28.49
72.20:	Computer software consultancy	28.06
92.40:	News agency activities	28.04
92.11:	Motion picture, video production	27.37
72.50:	Repair of office, computer eqt	25.88
74.20:	Archit.,engineering,etc consultancy	25.61
72.60:	Other computer activities	24.98
71.33:	Office mach, eqt rental	24.86
92.34:	Other entertainment activities	23.67
74.12:	Accounting,auditing,tax consultancy	21.38
74.13:	Market,opinion research	21.15
30.02:	Computers, IT eqt manufacture	20.44
74.40:	Advertising	19.28
71.34:	Other mach, eqt rental	19.13
91.11:	Business,employers organisations	18.48
67.13:	Other financial intermed. activ.	18.42
74.84:	Other business activities	18.16
80.42:	Adult,other education	18.06
93.05:	Other service activities	17.43
67.12:	Securities,fund management	16.73
64.20:	Telecommunications	16.46
51.11-51.19:	Wsale on fee, contract basis	16.16
33.403:	Photographic, cinema eqt man.	15.73
22.15:	Other publishing	14.83
31.62:	Other elec eqt manufacture	14.27
74.30:	Technical testing, analysis	13.51
72.30:	Data processing	12.81
91.20:	Trade unions	12.66
	Special educ, private non-maintained	12.32
22.13:	Journal,periodical publishing	12.15
91.12:	Professional organisations	12.13
92.20:	Radio,TV activities	12.09
70.32:	Management of real estate	11.43
80.302+3:	First & post degree level educ.	11.10
66.03:	Non-life insurance	10.83
65.231-6:	Unit,inv trusts, hlding co etc	10.83
32.202:	Radio,electronic goods manuf.	10.81
71.40:	Person,hhld eqt rental	10.65
66.01:	Life insurance	10.62
73.10:	Research,natural sciences, engin.	10.34

Source: UK Labour Force Survey, Spring Quarter, 2004. Analysis by the Institute for Employment Studies

3

What is the extent of offshore outsourcing?

It is important to emphasise, along with the OECD (van Welsum, 2004), that there are currently no reliable statistical indicators of the extent or nature of global outsourcing. It is not possible, either through the trade statistics or the EU occupational and employment statistics, to track statistics of imports and exports of business services to identify with any accuracy which components of these services represent jobs. Unlike physical goods, business services are intangible and may be transmitted digitally in a variety of ways, under many possible contractual arrangements.

For evidence we must therefore look to the results of market research, one-off surveys and case studies or anecdotal evidence. It must be emphasised that these vary in their reliability and their conclusions. They may be coloured, either positively or negatively, by the specific interests of the agencies who commissioned them, depending on their point of view. In between, lie many analyses which strain for objectivity but are hampered by the lack of solid empirical evidence.

Most of the studies carried out so far have been in the United States and these illustrate clearly the degree of existing disagreement about the scale of offshore outsourcing. For instance, Forrester Research, in 2002, estimated that over the next 15 years, 3.3 million US service sector jobs would move offshore, representing \$136 billion in wages. The same study concluded that 473,000 IT jobs will have gone offshore by 2015, representing 8% of all IT jobs in the US (Corporate Research, 2002). A follow-on study, published in 2004, set the estimated figures even higher, at 3.4 million, resulting in an estimated 830,000 lost by 2015. This acceleration, according to the authors, is based on the media furore surrounding offshoring, which might have increased the awareness of outsourcing among businesses (Silicon.com, 2004). However an academic study at the University of California (Bardhan and Kroll, 2003) concludes that the real figure may be up to four times higher than this. *Wired* quotes an estimate of 200,000 service jobs per year leaving the US for the 'foreseeable future' (Pink, 2004). Datamonitor's IT Services Contract Tracker estimates that the value of globally outsourced IT contracts rose by almost 50% to \$119 billion in 2003. In a research report in mid-2003, the IT consultancy, Gartner, predicted that at least one out of 10 technology jobs in the United States will move overseas by the end of 2004 (Gartner, 2003). Interpreting these studies is made more difficult by variations in terminology and definition of the concepts 'offshore outsourcing', 'BPO outsourcing', 'ICT outsourcing' and so on. A Canadian review of published studies revealed even wider disparities (Prism Economics and Analysis, 2004).

An even greater confusion exists in the EU where there are notably few academic, systematically led investigations in the area of European and offshore outsourcing. Estimates of the impact on Europe are vague, especially in relation to outsourcing to smaller Asian countries and eastern European states. There is, however, a general consensus in the literature and among the experts interviewed for this report, that European enlargement has rendered the new Member States increasingly desirable locations for outsourcing.

McKinsey Global Institute estimates that US businesses dominate the global market for offshore outsourcing, with a market share of 70%. Europe and Japan follow, accounting for most of the remainder. The UK holds the largest share in the European market because of more liberal employment and labour laws (McKinsey, 2004a and 2004b).

The EMERGENCE study, already quoted, found 5% of EU establishments outsourcing at least one business function across national frontiers in 2000 (Huws, 2003). The study found major national differences in outsourcing practices, a finding which is confirmed by other studies. The Roland Berger consultancy, for instance, found 61% of UK companies outsourcing compared with only

15% of their German counterparts. As a result, there have been more studies carried out in the UK than elsewhere in the EU (Roland Berger, 2004).

Forrester Research estimates that the UK will account for three-quarters of all European offshore outsourcing in five years' time and software development will be the main service provided. Another Forrester Research report states that offshore service spending in Western Europe will grow from EUR 1.1 billion in 2004 to EUR 3.6 billion in 2009, with the UK accounting for 76% at that point. Other countries like France and Germany will increasingly outsource to the Czech Republic, Russia and Tunisia (Peynot, 2004 and Parker, 2004). The IT consultancy firm, Gartner, estimates an ultimate growth of 40% in outsourcing in Europe, with an expected increase by 30% in 2004. Outsourcing Consultancy produced statistics for the first quarter of 2004, showing that the Business Process Outsourcing (BPO market) is slow in meeting forecast values. There was an increase in total contract values in 2003 for Europe, which were up almost 50% on 2002 to €2.6 billion. According to this study, outsourcing as a whole is outstripping the IT services market in Europe, growing by 3.1% in 2004 and predicted to rise to 8% by 2007, with the offshore element tipped to expand hugely. Gartner predicts that almost a third of leading European businesses will include an offshore element in their IT plans by 2005. As a result of this shift of IT services overseas, up to 25% of EU and US IT jobs could go to the emerging markets by 2010. But Gartner also predicts that the new European countries will become popular for 'nearshore' outsourcing of some operations, although not on the sort of scale that will pose a threat to India (Gartner, 2003).

Germany is the second largest outsourcer, mainly making use of cheaper costs in eastern Europe. A comparison of US and German cost savings shows that the US gains \$1.12–1.14 for every \$1 of corporate spending moved to India, while Germany is losing 0.20 of each euro of corporate spending moved to India or eastern Europe. This difference might be the result of higher coordinating costs for German companies due to greater differences in language and culture. However, a crucial difference stems from re-deployment strategies in the US and Germany, due to Germany's relatively high unemployment rate and lower rate of redeployment (Gartner, 2003). Another German study, commissioned by Deutsche Bank, estimated that 50,000 German ICT-related jobs would be relocated abroad (Huws and Flecker, 2004). Language is another factor: it is more difficult for other European countries to conduct business in English or find offshore opportunities in their common language. Here, links with former colonies become important, including Spain's links with Latin America, Germany's colonial links with South Africa and France's links with former colonies in North Africa and the Caribbean as well as Madagascar.

Knowledge process offshoring (KPO) is expected to grow faster over the next six years than general business process outsourcing (BPO). KPO revenues will grow 46% to \$17 billion by 2010, according to the business research firm Evalueserve. Although larger overall, BPO revenues will grow just 26% to \$39.8 billion by 2010. Evalueserve predicts that India alone will provide \$12 billion worth of KPO services by 2010. This compares to the \$720 million it provided in 2003. Other promising locations for this type of offshoring include Russia, Canada, China and Israel (Evalueserve, 2003).

A report by Pierre Audoin Consultants, suggests that Romania and other eastern European countries are virtually ignored by UK firms but are predominantly the first choice for the rest of western Europe. The report further reveals that the average price for offshore software development in Romania is around £100 per person per day and that the cost of employing a recently qualified graduate from an approved specialist university is approximately £4,100 a year. One advantage of

'nearshoring' instead of offshoring is the ready availability of well-educated and highly skilled workers who have a better understanding of the western European culture. The same report estimated that in 2003, Romanian revenue from European countries would reach £78 million, mostly from France, Germany, the UK and the Netherlands (Pierre Audoin Consultants, 2003).

In the UK, a survey of 150 member companies of the Confederation of British Industry (CBI) in 2004, found 51% reporting that pressure to offshore had increased over the past two years, with 21% describing these pressures as 'very great', 30% reporting that they had already relocated some activities overseas and almost a quarter considering doing so in the future (CBI, 2004). It should be noted, however, that this study included production activities as well as business and IT services. Another study of the impact of offshoring on the UK was carried out by the Evaluesserve consultancy, sponsored by the Indian IT trade body, the National Association of Software and Service Companies (NASSCOM). This estimated that 272,000 UK jobs will have been moved offshore to countries such as India by 2010 at a cost of £5.7 billion to the UK economy in unemployment benefits and retraining costs. The study predicted that around 19,000 consulting, legal and management jobs will be created as a result but that there will be a net loss of approximately 253,000 jobs. This study also attempted to offset the employment losses resulting directly from offshore outsourcing. Evaluesserve claims that the cost to the UK of not offshoring would be five times higher than the estimated loss, at £34 billion, due to a drop in output and a subsequent slowing of GDP growth (McCue, 2004). Other UK studies include a report by the Management Consultancies Association which predicted a 25% growth in offshore outsourcing of call centre work between 2003 and 2008 and a forecast from Dimension Data that nearly 200,000 call centre posts will relocate to lower cost countries between 2004 and 2006 (CWU, 2004). The UK service sector trade union, Amicus, quoting a forecast by Deloitte Research, found that 2,000,000 financial service jobs will be outsourced from western countries to India by 2008. It also estimates that 1,000 UK jobs a week are lost to offshoring and that 200,000 UK jobs, especially in IT support, will be offshored by 2008. Amicus further claims that 15,000 jobs have been offshored since October 2003 (Amicus, 2004).

At European level, a number of forecasts converge to estimate that between 2–3% of all EU service employment may be offshored by 2015 (TUC, 2004). Two points must be made, however, in relation to this. Firstly, the loss of jobs is typically less than normal 'churn' in the sectors concerned. Many call centre and back office functions are typified by very high staff turnover rates and job losses usually occur by natural wastage. Secondly, these industries are continuing to expand in absolute terms and it is often the case that the number of new jobs created exceeds the number offshored. For instance, Datamonitor expects the number of UK call centre agent positions to rise from around 384,000 in 2003 to around 470,000 in 2007 despite a growth in offshoring during the same period (CWU, 2004). Job loss may, however, take place in competing companies which have lost market share by failing to reduce their costs; they may also take place in client companies in other sectors as a result of outsourcing to the business services sector.

Despite these provisos, we must conclude that the impact on employment in the EU may not be so much a quantitative one, in terms of absolute decline in the numbers of jobs, but a qualitative one. On the one hand, the jobs that remain are more likely to demand relatively high skill levels, creating a risk of exclusion for those who lack such skills; on the other, the character of many previously secure jobs may become more contingent and precarious in the face of relocation, even if this is not actually realised.

The distribution of ICT service employment in Europe

In order to gain an overview of the distribution of ICT service employment in Europe, a detailed analysis of data was carried out from labour force surveys (LFS) of the 25 EU Member States plus the candidate countries of Bulgaria and Romania and the European Free Trade Area (EFTA) members, Norway and Switzerland. The most recent figures available were from 2003. Unfortunately detailed sectoral data was not available for Poland, and 2002 figures were used for the Netherlands. For reasons outlined above, the analysis focused on NACE sectors 72 (computer and related activities) and 74 (other business activities) as indicators of the relative distribution of ICT service employment.

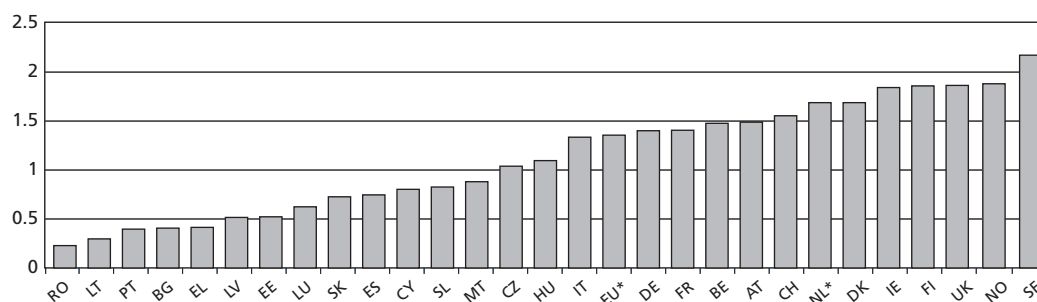
In the 25 EU Member States, excluding Poland, out of a total workforce of approximately 180 million, some 2.4 million (1.3%) were employed in computer and related activities and 11.3 million (6.3%) in other business activities. These 13.7 million workers do not equate in any simple way to the numbers whose jobs are potentially delocalisable but their relative distribution and growth certainly give us some clues to the potential for offshoring in the EU and likely future trends.

Figures 3 and 4 show the distribution of this employment by country for computer and related activities and for other business activities.

As can be seen, both activities show a similar distribution, with the highest proportions in the Nordic countries, the Netherlands and more developed economies in northern Europe. The Mediterranean countries occupy an intermediate position, close to the EU average, whilst the new Member States, along with Portugal, have below-average concentrations of ICT service employment. Some other national peculiarities emerge: Ireland, for instance, is much stronger in computer-related activities than in other business activities, while the reverse is true for Denmark and the Netherlands. In general, however, the picture is much as one would expect, with the highest proportions of both types of employment in the most developed economies.

However when we turn to an examination of growth rates in these sectors, a very different picture emerges, as can be seen from Figures 5 and 6, which show how these two sectors grew between 2000 and 2003 (or, in the case of the Netherlands, 2002). Both Malta and Poland had to be excluded from this analysis because of lack of data.

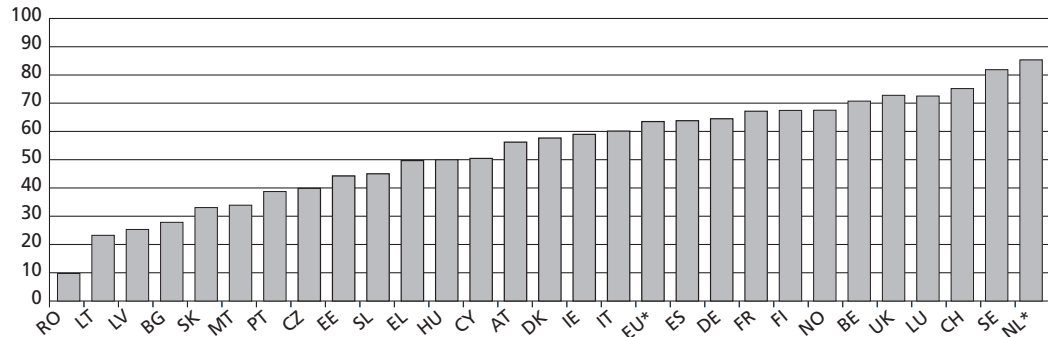
Figure 3 Distribution of employment in computer and related activities in Europe, 2003
(% of all employment)



Source: Eurostat data analysed by Analytica.

NB EU average excludes Poland; Netherlands data is from 2002

**Figure 4 Distribution of employment in other business activities in Europe, 2003
(% of all employment)**



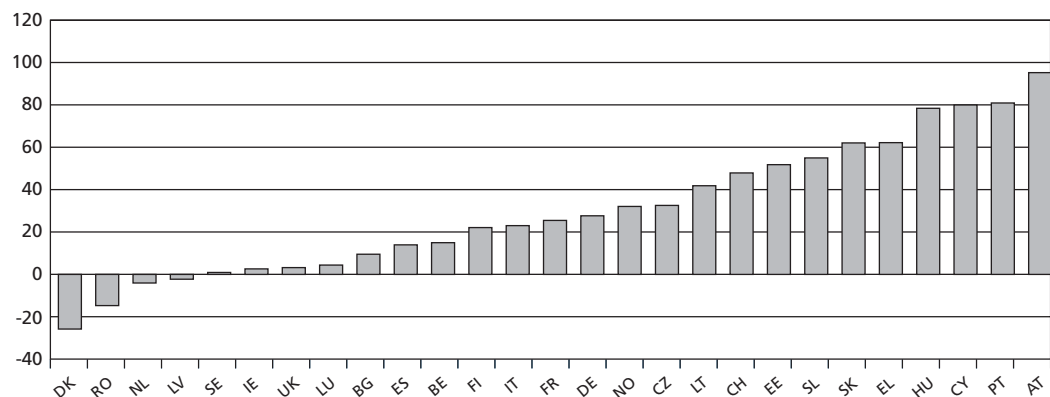
Source: Eurostat data (Community Labour Force Survey) analysed by Analytica.
NB EU average excludes Poland; Netherlands data is from 2002

With a few exceptions, these results show that the strongest growth has taken place in precisely those countries where employment levels in these sectors are at their lowest. In other words, while the new Member States may be behind the rest of Europe in the proportion of their economies devoted to ICT services, they are catching up fast. The lowest growth rates are, by and large, in the most developed economies.

It is very likely that the picture of European convergence in ICT services which these trends reveal is at least in part a direct result of the relocation of jobs from northern and western Europe to the new eastern European Member States. This cannot be demonstrated conclusively on the basis of this analysis alone but is fully consistent with it.

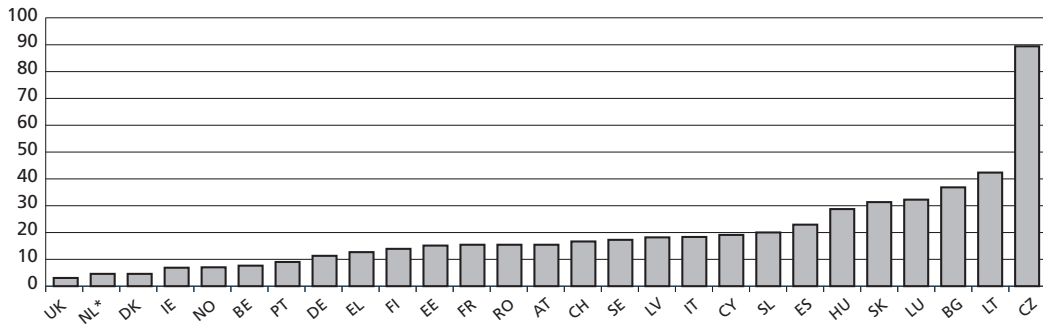
An even more important conclusion that can be drawn from this analysis is that Europe is *not* losing jobs in ICT services. On the contrary, employment in other business services is growing consistently across all the countries studied and, in some cases, such as the Czech Republic, this growth is quite spectacular. With the single exception of Denmark, any decline in computer and related employment was more than compensated for, numerically speaking, by growth in the other business services sector.

Figure 5 Growth in employment in computer and related activities in Europe, 2000–2003 (%)



Source: Eurostat data (Community Labour Force Survey) analysed by Analytica.
NB Netherlands data is from 2002

Figure 6 Growth in employment in other business activities in Europe, 2000–2003 (%)



Source: Eurostat data (Community Labour Force Survey) analysed by Analytica.

NB Netherlands data is from 2002

There are several explanations for this continuing growth in ICT service employment in Europe. In part, it is a reflection of economic and linguistic diversity, giving a large range of alternative sites for offshore outsourcing within the EU. In part, it reflects the fact that the EU is a recipient of outsourced employment from other parts of the world, notably the US. Finally, it is a reflection of the increasing propensity to outsource ICT and ICT-enabled functions, resulting in a shift to these sectors from other parts of the economy, including the public sector.

Driving factors of ICT service outsourcing

Popular media accounts of offshore outsourcing often paint a simplistic picture of a trend driven exclusively by the search for ever-lower costs. In fact, the reality is more complex. Cost is not a one-dimensional factor but made up of many different elements which must be balanced against each other as well as against other non-cost-related factors. Recent research has identified a range of driving factors for ICT service outsourcing. These include:

- cost differentials regarding labour and other costs
- access to knowledge and availability of labour
- cost savings achieved by economies of scale through consolidating activities
- corporate restructuring including concentration on core business activities and the role of outsourcing service providers and intermediaries.

While there is widespread agreement on the main driving factors, their actual importance differs depending on:

- the business function involved – software development, IT maintenance, IT customer service and support, and business process services etc – each have their own specific requirements
- company size and structure – different dynamics can be observed in SMEs, large corporations, national, transnational, conglomerate etc
- business and product development cycles
- the specific situation in particular labour market segments and national or regional contexts.

Labour cost differentials

In many cases, the primary aim of relocation is to take advantage of lower wages in order to cut costs (UNCTAD, 2002; Huws, 2003; UNCTAD, 2004; Boes and Schwemmler, 2004). To this end, software development or data input may be relocated to central and eastern Europe or to India and other non-European countries. This can take place as an isolated measure or in the framework of company reorganisation. Pressure on the parent company or management to cut costs coincides with perceived relocation options (Flecker and Kirschenhofer, 2002). Wage differentials depend on the precise activity and location. In the EMERGENCE case, companies reported differences in personnel costs for data entry reaching 1:10 between the EU and developing countries. However, experiences with relocating particular software development to India showed that wage cost differentials misrepresent actual cost advantages – taking other cost categories into account partly reduced the cost advantage from 80% to 50%. In some cases, companies hardly experienced any cost advantages after all costs involved were considered (Lacity and Willcocks, 2001). It was surprising that, in many cases, no detailed cost-benefit analyses was made before making decisions on relocation or outsourcing of business services (Flecker and Kirschenhofer, 2002).

According to UNCTAD, low costs were location determinants of call centre-FDI projects and of FDI projects in shared service centres in developing countries in the years 2002 and 2003. However, low costs only ranked fourth with IT services FDI projects, after market growth, skilled workforce and proximity of customers and markets. Call centres and shared service centre companies also mention the availability of a skilled workforce as important locational determinants nearly as frequently as low costs (UNCTAD, 2004).

A German regional company survey revealed that outsourcing to other countries, while accounting for only 8% of all outsourcing, still mainly involved the manufacturing functions and was motivated by lower personnel costs elsewhere (Hendrix 2003, p.87). In general, this study showed that cost cutting and increasing organisational flexibility can be seen as the major motives for outsourcing.

Availability of labour and access to knowledge

In the second half of the 1990s, European companies often had to face the fact that internal capacities, in particular human resources, did not meet the demand for IT development work which increased because of the year 2000, the euro and the spread of Internet applications as previously noted. Labour market shortages restricted their internal capacity-building. Partly in response to this situation, they turned to outsourcing or direct foreign investment. In the late 1990s IT boom, European companies needed to relocate work, e.g. to India, for the necessary resources for new software availability (Flecker and Kirschenhofer, 2002). It is now clear that this particular historical constellation was crucial for the development of cross-border outsourcing and offshoring.

Access to specific specialist knowledge, in particular R&D and software development, may also be the aim of outsourcing. Development is outsourced to specialised companies because the internal skills for it are insufficient and it is clear that these cannot be easily built up internally. The EMERGENCE study found that in such a situation companies often decide to outsource in the global market without bothering to check whether the local labour market could offer a competitive alternative (Huws, 2003).

In the customer service function, shortages of personnel or a high turnover of call centre operators were identified as major regional push factors and motivation for the relocation (Flecker and Kirschenhofer, 2002). Sometimes the shortage of operators can arise from the concentration of too many pan-European call centres in one region and hence increased competition for staff which in turn contributes to high labour turnover. However, these high turnover rates are also linked with the monotonous and standardised nature of the work. High turnover leads to exploding company costs because operating and experiential knowledge is continually being lost.

Since the IT industry downturn in 2001, labour market shortages are no longer a major reason for relocation because the availability of IT specialists has increased sharply. In Germany, for example, it was estimated that even among the immigrant IT specialist holders of 'green cards' who were recruited in 2000, unemployment had reached 7% by 2003 (Schreyer, 2003). However, even for the years 2002 and 2003, the availability of labour with the appropriate skills was still reported to be a major factor of locational determinants. This is of particular importance for FDI projects related to call centres, shared services and IT services (UNCTAD, 2004).

Economies of scale through consolidation and flexibilisation

In several business functions, economies of scale can be obtained by consolidating tasks at a single site, thereby reducing the cost of infrastructure, training and management (UNCTAD, 2004). This relates to IT services such as computing centres, software development and IT support, but also to IT enabled services such as call centres or business process outsourcing in the HR function. The infrastructure for telecommunication, data transfer and the opportunities for remote maintenance

of software, for example, make it easier to consolidate activities and geographically concentrate the work. In this process, comparative advantages of regions and cost differentials do, of course, play a role. But it could also be observed that in the restructuring process, larger units have the advantage of 'surviving' more easily and have additional tasks transferred to them, regardless of location. The original geographical distribution of units or the location of newly acquired units can thus be seen as an intervening factor that could mediate regional cost differentials (Flecker and Kirschenhofer, 2002).

The advantages of centralisation also lie in the area of knowledge management and attractiveness for IT specialists. A large specialised unit is more easily able to deal with the demands of technological development and can offer better learning and career development opportunities to employees.

Companies often introduce outsourcing as part of a general strategy to increase flexibility. This is most obvious in the customer service business function where excess demand ('overflow') is often taken care of by external call centres. But software development and IT support companies also make use of external service providers to cover peak demand. In some cases the low costs and dependent position of a recipient country, like India, can lead to excessive dependence of customers on them. This can lead to an impression of bad and chaotic work practices (Hirschfeld, 2004).

Corporate restructuring

Since the late 1980s and early 1990s, there has been a general trend in corporate restructuring to 'concentrate on core activities' and to outsource tasks in a range of business functions. Apart from costs, this is motivated by considerations relating to management capacities, human resources, knowledge management and quality aspects. In countries with multi-employer bargaining such as Germany, differentials between, and non-coverage by, sector level collective agreements are among the motives for outsourcing (Hendrix, 2003).

Offshore outsourcing can be seen as an indirect effect of the restructuring of companies and value chains. Outsourcing service providers, based in the US or in the EU, operate internationally, and are therefore in a position to allocate tasks to subsidiaries in different countries depending on cost differentials and the availability of skills. These global players have increasingly become 'key targets for investment promotion agencies seeking to attract FDI into export-oriented services' (UNCTAD, 2004). In addition trans-national companies (TNCs) based in developing countries, most notably in India, have in recent years established subsidiaries for sales activities and customer contact within the EU (Huws, 2003). This means that in addition to projects which are deliberately aimed at offshoring, other projects may also be transferred across frontiers as an incidental side-effect of the internationalisation of service provider companies in a global market.

In order to facilitate these developments, a number of intermediary organisations have grown up, offering their services both to companies planning to outsource activities and to service providers. Whilst large global players, occupying intermediate positions in global value chains, offer a range of business services to large companies, Internet-based intermediaries facilitate outsourcing and offshoring of small projects or one-off tasks and provide access to offshoring to SMEs (Flecker and Kirschenhofer, 2002).

Restructuring involving outsourcing of the IT function is often triggered by technological change. Banks, for example, in recent years, have increased their Internet-related activities. This placed new demands on the internal departments for information systems. The recognition, that these demands could be better dealt with by a specialist company, and that development times could be speeded up and reliability improved, has become one of the driving factors of outsourcing and, in some cases, geographical relocation. In general, rapid technological change and the technical complexity of ITC technologies can be seen as a major driver of outsourcing. These companies may find it easier to cope by relying on specialised external service providers (Rohde, 2003). The development of eGovernment also creates huge demands for external business service provision in the public sector.

Closely linked with such technological changes are increased pressures for quality improvements. In fact, quality is seen as one of the single most important drivers of offshoring by the recent World Investment Report (UNCTAD, 2004): 'Quality improvements were cited by large European TNCs as the third most important benefit achieved from offshoring (after reduced labour costs and other costs), often exceeding expectations'.

6

Trends in offshore outsourcing

Although offshore outsourcing of ICT services is still in its infancy, some general trends can be discerned in the emerging global division of labour in ICT.

Transition from an experimental to a consolidation phase

When the EMERGENCE project revisited companies three years after being first interviewed in 2000, it became clear that what had once been seen as one-off experiments was now normal business practice (Huws and Flecker, 2004). However, offshore outsourcing remains a risky undertaking. A survey of over 5,000 IT user companies in the US, Canada and Europe by Venturo, found that of the 19% which had an offshore strategy, only 45% said it was a success and 36% claimed it had failed (McCue, October 2004).

Nevertheless, there is evidence that risk is being reduced. The major offshore suppliers have developed rigorous quality standards. Company structures have been increasingly reorganised to enable them to take account of the new reality. Relationships have been built up with suppliers and remote branches enabling more and more work to be transferred in less risky ways. Intermediaries and consultants have played a role in building up this market. Once a critical mass has been achieved, the process is propelled forward by competitive pressures.

A search for new locations

Although there are no reliable statistics on the existing international distribution of offshore outsourcing, it is clear that there is a continuing dynamic movement of employment to new locations. As existing destinations consolidate their positions, locally based companies move up the value chain with some overheating effects on the local economy. Clients may then begin to look for alternative locations while locally based companies, in order to consolidate their intermediary positions in the value chain, will look for further opportunities to outsource in a second or third 'hop' to a lower cost location. Thus, for instance, while the first wave of offshoring in India took place in larger cities like Bangalore, Mumbai, Chennai, Hyderabad and Delhi, newer employment growth in BPO is increasingly taking place in smaller towns and cities in India. There has also been a rapid growth of offshored ICT service employment in other Asian countries including Vietnam, the Philippines, Sri Lanka and, most spectacularly, China.

In Africa, for some time now, there have been concentrations of offshored employment, especially call centres in the Maghreb countries (mainly serving French and Hispanic speaking customers) and in South Africa (mainly serving English and German speaking customers). However there is evidence that a number of other countries in or near Africa, including Ghana, Mauritius, Madagascar and the Cape Verde islands are establishing niches for themselves in offshored service activity.

Latin America and the Caribbean, too, appear to have seen a rapid growth in offshored service activity, both in more established locations (such as Brazil, Mexico, Barbados and Jamaica) and in newer ones, such as Guatemala and the Dominican Republic.

However, among the European experts interviewed for this report, the consensus was that, with the exception of China, the most dramatic developments would be those taking place in eastern

Europe. Several of the new Member States, including Hungary and the Czech Republic, have already established a solid position in IT services, as have Bulgaria, a candidate country, and Russia, which remains outside the EU. Partly as a result of historical and geographical ties, there are already established offshore service links between, for instance, Sweden and Estonia, and Austria and Slovenia. It seems likely that EU enlargement will greatly extend the scope for such cross-border trade in ICT services, in particular by giving a chance for companies in non-English-speaking countries to take advantage of the sort of opportunities already being grasped by their counterparts in the US, UK, Ireland, Canada, Australia and New Zealand.

It is likely that some countries will find themselves acting both as 'sources' and 'destinations' for ICT business services, as Canada has already become. In some parts of that economy, companies are buying in services from other, lower-cost regions, such as Asia, while others are selling them to foreign clients, for instance in the US. Within the EU, this might be seen as an extension of the geographical division of labour which already exists within some states. For many years, for instance, companies in northern Italy have been outsourcing to the south, and those in the south east of England to Scotland and Wales. The relocation of functions to peripheral and rural regions of the EU and to new Member States from the prosperous metropolitan heartlands can be seen as a continuation of such processes.

Continuing growth in the importance of intermediaries

The growing size of successful global suppliers of outsourced services means that the outsourcing relationship is increasingly driven by supply-side as well as demand-side factors. Furthermore, as products become more complex, value chains become longer, meaning that there may be several intermediaries in the supply chain for ICT services, perhaps based in different regions, countries or continents. The transfer of work rarely takes place as a simple handover. Rather there is a process whereby tasks may be passed across one at a time, sometimes after a prolonged period of preparation or training. All these processes together imply an increasing trend towards the development of intermediaries, for instance, to act as brokers, advisers, training providers, trouble-shooters, location finders, staff recruiters or local facilities managers.

Extension of offshore outsourcing into increasingly skilled fields

As corporate learning about the most successful ways of managing offshore outsourcing is consolidated, and as suppliers move up the value chain, there is an increasing tendency for more skilled and high value-added activities to be offshored. In the ICT producing sectors, there has been a strong trend for the offshoring of low-skilled activities (such as coding) to be increasingly supplemented by higher-skilled activities, such as research and development. Examples of high-skilled activities in ICT using sectors, include the use of remote doctors for specialist consultations, the employment of India-based radiographers to interpret X-rays for US hospitals (Sinclair Jones, 2004), the Thomson Corporation's use of Mumbai-based lawyers to prepare summaries of US court judgements (Smith, 2004) and the recent decision by Reuters news agency to use Bangalore-based journalists for editorial work requiring 'selectivity and news judgement' (Cathcart, 2004). There is every evidence that such trends will accelerate, with implications for professional occupations, as well as technical and clerical ones.

Changes in public attitudes

Public debates about offshore outsourcing are sharply polarised, and there is some evidence that public attitudes now affect offshoring decisions, especially for functions such as call centres where the location of the workers is easily detectable by accent. A survey carried out by Contact Babel found that 47% of UK consumers felt more negative about organisations which offshored and that 73% of customers who had dealt with an offshore contact centre claimed to have found them worse than in the UK (Indian Contact Centre Review, 2004). There is also evidence that a number of UK call centre employers in the financial services sector have responded to this by deciding not to offshore their call centre employment and to announce this fact to improve their public image (CWU, 2003). Some of this opposition may be rooted in xenophobic attitudes (Mirchandani, 2003). However, it seems likely that a great deal of it is based on the perception that there is a direct link between offshoring and the loss of jobs locally. In some ways this is reminiscent of public panic about mass unemployment in the late 1970s in reaction to the huge productivity increases which information and communication technologies were capable of achieving. It is likely that, as the realisation spreads that offshoring is not necessarily associated with negative quantitative impacts on employment in the EU, the debates will shift towards qualitative issues, relating to skills, quality of working life, job security and labour standards.

Several conclusions can be drawn from this brief overview:

There is currently a lack of reliable statistical indicators for offshore outsourcing. If future developments are to be tracked accurately in order to inform policy, then there is an urgent need for the identification of appropriate indicators and data collection instruments, and the allocation of resources for their analysis at regional, national and EU levels as well as globally.

The international migration of ICT service employment appears to be growing fast, both between EU Member States and globally. Within the EU, the UK has been the most important user of outsourced services, but there are signs that other Member States are rapidly adopting this practice. Former colonial powers have in the past turned first to their former colonies in seeking destinations but in the future they are increasingly likely to seek locations in eastern Europe. China is also predicted to grow rapidly as a supplier of offshore services.

The jobs most likely to be affected by offshore outsourcing fall within the 'computer and related activities' and 'other business activities' sectors, although it must be emphasised that not all the jobs in these sectors are capable of being relocated and that, furthermore, a number of jobs in other sectors may also be affected. These sectors together account for 13.7 million workers in the expanded EU, excluding Poland, and represent respectively 1.3% and 6.3% of all European employment.

An analysis of employment trends in these sectors reveals no evidence of net job loss between 2000 and 2003. On the contrary, with the exception of Denmark, there was net growth in all Member States, with no state losing employment in 'other business activities' and very rapid growth in some countries, most dramatically in the Czech Republic. This growth is much higher in new Member States than in the more developed economies of northern and western Europe. This suggests that some relocation of jobs within the EU may be taking place.

There are several explanations for the continuing growth in ICT service employment in Europe. In part, it is a reflection of the economic and linguistic diversity of Europe, which offers a large range of options for alternative sites within the EU without having to relocate to other continents. In part, it reflects the fact that the EU is a recipient of outsourced employment from other parts of the world, notably the US. Finally, it is a reflection of the increasing propensity to outsource ICT and ICT-enabled functions, resulting in a general shift to these sectors from other parts of the economy, including the public sector.

Although offshore outsourcing frequently results in an overall reduction of jobs at a particular workplace, it is rare for this to be associated with actual redundancies. More typically, relocation occurs in the context of organisational change and job loss takes place in the context of normal workforce 'churn'. This organisational restructuring results in qualitative as well as quantitative changes to jobs and may involve a redistribution of employment between a range of intermediaries and transnational service providers along the value chain. On the basis of existing evidence it is not possible to quantify additional employment which may be created elsewhere in the economy as an indirect result of offshore outsourcing, for instance, from market growth.

These organisational changes have implications for skills, particularly communication and language skills, creating a risk of exclusion for those who lack such skills. A further risk is that the

character of many previously secure jobs may become more contingent and precarious in the face of relocation, even if this is not actually realised. Further research is required to establish the qualitative impact on jobs and the implications for skills.

Offshore outsourcing is rapidly becoming part of normal business practice in the EU, and there are strong pressures on companies to follow what is often presented as an unstoppable trend in order to remain competitive. However it is still associated with a high risk of failure. There is a need for further research and information, especially for SMEs, to enable them to undertake a risk analysis and make decisions on the basis of a full appreciation of the costs and benefits and an awareness of all the alternative options for improving performance.

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The international migration of service employment in the information and communication technologies (ICT) sector is growing, both between EU Member States and globally. Often referred to as 'outsourcing' or 'offshoring', this phenomenon has moved to the top of the policy agenda in recent times. Indeed, outsourcing is often considered to be driven exclusively by the search for ever-lower costs. In fact, the reality is more complex and different elements, including non-cost related factors, are among the driving forces for ICT service outsourcing.

Based primarily on an analysis of a body of research covering more than two decades, this report defines the scope of 'offshore outsourcing' and the services involved. It also covers issues such as the distribution of ICT service employment in Europe, driving factors of ICT service outsourcing and current trends in offshore outsourcing.

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