

## ERGEBNISSE VON TA-PROJEKTEN – NEUE TA-PROJEKTE

### A New Virtual Global Division of Labour? Some lessons from the EMERGENCE project

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**Conventional wisdom suggests that the widespread introduction of ICTs at a global level is leading to the “death of distance” and the emergence of an autonomous “weightless” new economy. The EU EMERGENCE project carried out empirical research in 18 European countries plus Asia, Australia and North America and concluded that neither of these claims can be justified. However there is strong evidence that a new international division of labour is emerging in business services, based on outsourcing relationships between firms and resulting in increasing geographical diversification as countries and regions compete to fill specific niches in the provision of knowledge-based services.**

It is perhaps a truism of the literature that the “new economy” is bringing into being a new industrial geography. The introduction of new information and communications technologies has made it possible for many activities, previously rooted to one place, to be relocated to any spot on the globe where the right infrastructure is in place and the workers with the right skills are to be found, at the right price. This potentiality has given birth to concepts such as “the end of geography” or the “death of distance” to use the titles of publications by Richard O’Brien and Frances Cairncross.

This idea of the death of distance is closely linked in the literature with another, the notion that the economy is increasingly characterised by “immaterialisation” or “weightlessness”. This argument is postulated by Danny Quah, who argues that we are entering an era in which increasing proportions of added value are created by inputs of “knowledge”, which, because

it is inappropriable, does not obey the same economic laws as consumable items, such as raw materials. Quah’s argument that the new economy is “weightless” has been taken up and popularised in books like “Weightless World” by Diana Coyle and “Living on Thin Air” by Charles Leadbetter and many others

Two simultaneous processes are being described here: first, the delocalisation of information services; and second, the replacement of physical goods by “immaterial” services. Collapsing the two together, as frequently took place in the popular discourse about the “knowledge-based economy” at the end of the 1990s, produced an impression that a historically unprecedented process of “virtualisation” was taking place. In this new economy the main source of added value was “knowledge” which, because it could be transmitted digitally, could be input from any location.

But to what extent can the “death of distance” really be said to have taken place? And can a separate “weightless” knowledge sector really be said to exist? The EMERGENCE project was set up with the aim, as its acronym suggests, of estimating and mapping employment relocation in a global economy in the new communications environment. The project ran from 2000 - 2003, and was funded by the European Commission’s IST Programme<sup>1,2</sup>

The focus of the project was on “eWork”, that is to say work which is information-based and capable of digitisation and transmission over a telecommunications link and thus potentially delocalisable. The aim was to find out to what extent this potentially delocalisable work was actually being relocated, or carried out at a distance, using the new information and communications technologies, to find out the characteristics of this work, to investigate the dynamics of the relocation process and to look at the policy implications of these developments.

In order to address this question, the EMERGENCE project carried out a survey of 7,268 larger establishments (those with 50 or more employees) in the EU (15) countries plus Hungary, Poland and the Czech Republic. This was subsequently augmented by the results of supplementary surveys of 500 smaller establishments (with fewer than 50 employees) carried out in Belgium, Denmark and Ireland and

a comparable survey of 1031 establishments of all sizes in Australia. The results of these employer surveys were complemented by in-depth “double” case studies in which companies which had relocated work from one region or country to another were investigated separately at both the “source” and the “destination” location in order to gain a qualitative insight into the dynamics of eWork relocation, the costs and benefits and the policy implications. Around 150 of these dual case studies have been carried out so far across Europe, and in Asia, Australia and North America.

We focus here on the results of the original 18-country European employer survey. This took as its starting point seven generic business functions. These comprised: creative and content-generating activities including research and development and design; software development; data entry and typing; management functions (including human resource management and the training of workers as well as logistic management); financial functions; sales activities, and customer service (which included the provision of advice and information to the public as well as after-sales support). The questionnaire used for the computer-aided telephone interviews made it possible to collect information hierarchically firstly on whether or not any of the seven generic business functions was carried out at or from the establishment; secondly whether it was carried out in-house or outsourced; and thirdly where, geographically, this activity was based. Further questions made it possible to identify some of the characteristics of remote workers: their numbers; their gender composition; and whether they were working from their homes, multilocally or in office-type premises.

The resultant data set makes it possible not only to see the geographical division of labour (which activities are being carried out in which regions or countries) but also the inputs and outputs of these business services between different sectors of the economy. In other words it provides a starting point for building a model of the relationship between the “old” and “new” economies’.

Figure 1 summarises the results from interviews with establishments with over 50 employees in eighteen European countries (Austria, Belgium, the Czech Republic, Denmark, Fin-

land, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Spain, Sweden and the UK).

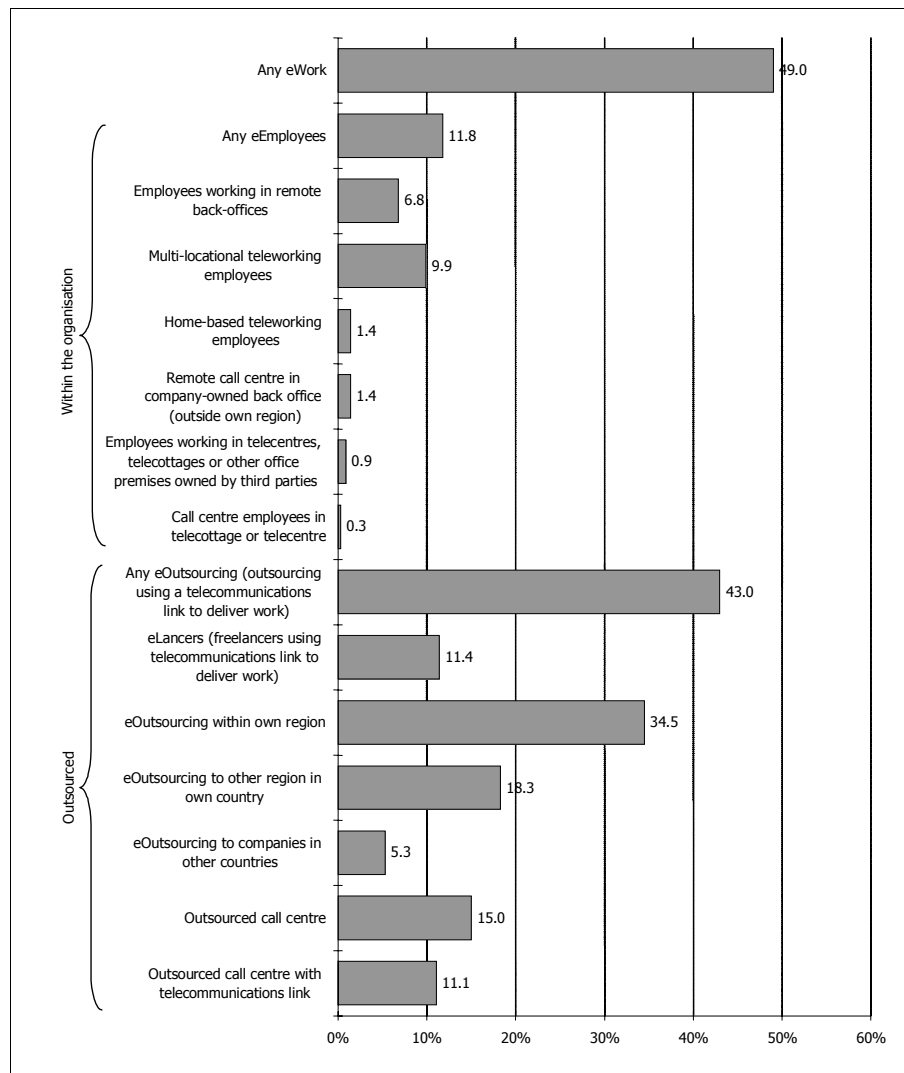
Overall, if we take a definition of eWork which includes any of the seven abovementioned business services delivered to the employer by remote workers using a telecommunications link for delivery, but excluding mobile sales representatives (arguably a very traditional form of eWork) we find nearly half of all establishments (49 %) practicing at least one form.

What is perhaps even more striking than the overall extent of eWork is the form it takes. Most of the literature on “remote work”, “telecommuting”, “teleworking” or any of the other pseudonyms for eWork presupposes that the dominant form is home-based working. Yet these results show that this is very much a minority practice. The stereotypical employee eWorker based solely at home is in fact one of the least popular forms of eWork. Only one and a half per cent of establishments employ people to work exclusively from home in this way.

It is much more common to use the new technologies to support multi-locational eWorking by employees, a form of eWorking which is practised by approximately one European employer in ten. Turning to eWork carried out by employees on office premises, we find that employers are already making significant use of information and communication technologies to carry work out remotely. One European employer in fourteen (6.8 %) has a back office in another region but less than one per cent of establishments make use of telecottages, telecentres or other remote office premises owned by third parties as workplaces for their remote employees, another form of eWork which is much hyped in the literature.

Most interestingly, however, these forms of in-house eWorking are heavily outweighed by the use of eOutsourcing as a mechanism for carrying work out remotely. Over half of all establishments (56 %) outsource at least one business service involving information processing. Restricting our definition only to those which use electronic means of delivery (“eOutsourcers”) we find 43 % of employers making use of this practice. Much of this eOutsourcing is carried out within the region where the employer is based (34.5 %) but substantial numbers (18.3 %) outsource to other regions within the

**Figure 1: eWork in Europe by type of eWork**



Source: EMERGENCE European Employer Survey, 2000 (IES/NOP).

Weighted figures: establishments with >50 employees in EU (15) plus Hungary, Poland and Czech Republic.

Weighted base: 7,305 cases

same country, whilst 5.3 % outsource outside their national borders. It is these inter-regional and international (sometimes inter-continental) relocations of work which provide us with clues about the geographical characteristics of the emerging international division of labour in eServices. Figure 1 shows the demand side of this eOutsourcing – those establishments which are buying in eServices from external suppliers. But of course an outsourcing arrangement involves two parties, a buyer and a seller. The EMERGENCE survey also looked at whether establishments were supplying eServices to external clients. It found that over one larger establishment in five in Europe (21 % of estab-

lishments with 50 or more employees) was involved in supplying at least one service electronically to external customers.

The sectoral pattern of this trade in business services between companies makes it clear that we cannot speak of a distinct and separate “new economy”. Rather, what appears to be emerging is an increasingly complex and elaborated division of labour within the old economy, in which activities previously carried out in-house are more and more likely to be subcontracted, and to be carried out at a distance. The companies which supply these outsourced services could be characterised as “knowledge-based”. However their fate is

firmly tied to the existing firms in the “old” economy and the all-too-material products and services which they continue to supply.

What about the “death of distance”? From these results, we can deduce that a considerable relocation of employment supported by ITCs is already taking place in Europe. However they do not provide support for the view that location has now become immaterial.

There are striking differences in the patterns of eWork between countries, suggesting that the specific forms of eWork adopted are strongly shaped by the local institutional environment, cultural traditions and other factors. The results also provide some evidence that the greater freedom of choice which employers now have in deciding where to locate particular functions is leading to more, rather than less, regional economic diversity both within the EU and globally.

The case studies reveal that a large number of organisational, economic, social and cultural factors are at play in the choice of a new location for any given business function. However the most important single motivation for relocation is the search for skills. This means that regions with a strong supply of skills, especially when combined with other advantages such as reasonably low costs, are now strongly in competition with each other. When distance is no obstacle, Bangalore competes with Bulgaria to supply software whilst Delhi competes with Dublin to provide call centre services. Other regions of the world may be completely bypassed in these developments. So we have a paradoxical situation in which, at least in principle, the new technologies offer every region for the first time in history a chance to compete equally without the constraints of geography, in practice we may be witnessing the development of a new and extreme form of economic polarisation between digitally successful regions and those which are excluded. As globalisation continues and more and more organisations take advantage of the potential to relocate business functions there is a risk that this new regional competition will increasingly take the form of “winner takes it all”.

Following the success of the original three-year European EMERGENCE project, additional funding was obtained from a variety of sources to extend the work into Australia,

Asia and North America and to carry out supplementary studies within the EU.<sup>2</sup>

## Notes

- 1) The partners were: IES, Institute for Employment Studies, UK (lead partner); DTI, Danish Technological Institute, Denmark; FORBA, Forschungs- und Beratungsstelle Arbeitswelt, Austria; HIVA, Hoger Instituut Voor de Arbeid, Belgium; ISB, Institute of Sociology, Hungarian Academy of Sciences, Hungary; IRES, Economic and Social Research Institute, Italy; IMIT, The Institute for Management of Innovation and Technology, Sweden; NOP Business, UK; CPROST, The School of Communications at Simon Fraser University, Canada; The Faculty of Business and Public Management at Edith Cowan University, Australia. From Germany, FAST – Forschungsgemeinschaft für Außenwirtschaft, Struktur- und Technologiepolitik was one of the subcontractors.
- 2) Further information on the results of the EMERGENCE project, downloadable reports, links, newsletters and case studies can be found on <http://www.emergence.nu> The site also offers practical tools including a *Regional Development Toolkit* on <http://www.emergence.nu/toolkit> and an interrogable *eReadiness Database* on <http://www.emergence.erdb> making it possible to compare countries and (in Europe) regions across a range of different variables relevant for eWork.

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