eWork in EU Candidate Countries

C Makó, R Keszi

EMERGENCE

Report 396

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Contents

Executive Summary

Based on the empirical data of the 18-country employer survey and on the facts of the company case studies of the EMERGENCE project, the authors illustrate the diffusion of eWork in three Central European countries. Following the introductory section on some mainstream views of the transforming economies and the methodology of the project, the study compares the various practices of generic business services. The establishments surveyed in the post-socialist economies show both similarities and differences in their micro-institutional patterns if compared to those in the EU (15) countries.

When comparing the diffusion of eWork in the different groups of countries participating in the EMERGENCE project — using the results of the 18-country employer survey — we find that eWork is more widely used in the NAS (3) than either in the EU (15) or in the Mediterranean (4) countries. As regards the size-factor, we have to mention the radical changes that have taken place in the size of business organisations in the post-socialist economies — especially in the Czech Republic and Hungary — during 1990s. The diffusion of eWork is more balanced in the EU (15) between the medium and the large firms than in the NAS (3). In the latter group of countries, eWork is used more extensively in the larger firms. The diffusion of eWork by sector shows similar patterns in the EU (15) and in the NAS (3): its share in the various service sectors (*eg* business and finances, education and health *etc.*) is higher than in the primary and secondary industries. These differences are greater in the NAS (3) than in the EU (15). The way of practising generic business services also shows differences in the two groups of countries: in the NAS (3) — primarily in the Czech practice — more business functions are kept within the organisation than in the EU (15). This pattern is especially strong in the case of such business services as 'data processing' and 'accounting and other financial services'. The social and economic impacts of unequal institutional developments in the former state-socialist countries (see the so-called 'path-dependence' argument) are discernible — among other things — in the extent of the presence of generic business functions within the organisations.

Outsourcing in general is more popular in the NAS (3) than in the EU (15) countries. If we treat 'outsourcing in legal terms' separately, namely when the given business function is actually carried out in-house, this type of outsourcing was lowest in the

Hungarian establishments within the NAS (3). The differences in this category implicitly indicate an unequal degree of institutional maturity of the SME sector in the Central European region. Furthermore, 'traditional outsourcing' has been compared to 'e-outsourcing'. Interestingly, in the case of core functions such as 'software development', 'creative work', 'HRM' and 'accounting', less than ten per cent has been practised in the form of 'e-outsourcing'. ICT link-enabled outsourcing was found to predominate in the case of 'customer services' only. In this respect, the Polish establishments are taking the lead before the Czech and the Hungarian ones. However, further investigations would be needed in order to understand the complex role of the various social-organisational and cultural factors in developing generic business services, especially in the field of the networking capacity of the micro- and small firms. But this would be another ambitious research initiative.

As regards further similarities between the two groups of countries, with the exception of 'customer services', traditional outsourcing still predominates over Internet-based outsourcing. The ratio of concentration of business services within the establishments is higher in the NAS (3) than in the EU (15). This can be attributed to the more mature state of the SME sector in the EU (15). Finally, the authors call attention to the important role of regulations in practising business services and also to the need of further research to reveal the roles that micro- and small firms can play in the e-economy.

While the 18-country EMERGENCE employer survey gives a cross-section view or a snapshot of the delocalisation of eWork, the company case studies give us an insight into the complex processes of these changes. Contrary to the general or popular view, ICT does not only give the small business owners and the free- or e-lancers a radically new tool to develop activities globally, but multinational corporations also use ICT to reach economies of scale through spatial concentration of activities or through decentralising activities to get access to cheaper labour or to the necessary skills (or to combine technical-professional and social skills). The Central European case studies illustrated the 'expansion' type of eWork delocalisation in the case of both company reorganisations and isolated company decisions. In connection with the case studies carried out in the Czech Republic, Hungary and Poland, we have to stress two important dimensions of eWork delocalisation, namely organisational changes and skill use. For example, the dynamic processes in software development and maintenance described in the case studies call attention to the use of both the 'high' and the 'low' roads of skill development. In the case of outsourcing creative activities like translation, ICT has become a versatile tool to combine systems with 'high' and 'low' employee involvement. The example of an 'Internet broker firm' indicates the new

development potential created by ICT for the micro- and small firms to participate in the global economy.

The relatively high-speed development of the Central European countries in the e-economy — in spite of the well-known shortcomings like high Internet prices and weak e-awareness of the various stakeholders in these countries — can be explained by the 'driver role' of the MNCs in the fast diffusion of eWork (or the high ratio of FDI) as well as by the key role of micro- and small businesses in using knowledge and manpower in a flexible way based on ICT. Finally, it is worthwhile to mention that contrary to the general view, 'technical expertise' and 'trust-relations' (long-standing relationships) are coming before 'low costs' among the motives of delocalisation of business services from the EU (15) to the Central European countries.

About the project

Financed by the European Commission's Information Society Technologies (IST) programme, the EMERGENCE project was launched in 1999. Its primary aim has been to map and measure the reputed rapid expansion of eWork. eWork is understood here as work carried out by means of information and communications technologies (ICT). The use of these technologies has made it possible for a range of activities to be located anywhere in the world where workers with the right skills and the appropriate infrastructure are available. As there was very little information about the processes that have taken place as a result of the spreading of eWork, the project has been aimed at revealing these processes. Its intention has been to answer such questions as: 'To what extent organisations are making use of the new technologies to relocate work?' or 'Which remote sites are chosen for eWork and what are the criteria for selecting them?'

Methodologically, the project has been based on three pillars:

1. A review of the existing relevant literature and a global statistical survey were done.
2. Computer-aided telephone interviews were carried out with 7,305 employers at business organisations employing more than 50 employees, in 18 European countries. The countries involved were the 15 EU member states plus three associated countries, namely the Czech Republic, Hungary and Poland.
3. In order to gain an insight into the complex processes of the delocalisation of work, and to be able to give qualitative analyses, 62 in-depth company case studies were researched in firms employing eWorkers in the countries participating in the project.

To understand the changes in the new international division of labour, the regional approach has also been applied. Thus

separate research reports have been written on eWork developments in the EU (15) countries, on those in Southern Europe, and finally on the processes having taken place in Central Europe.

The present report gives an account of the main features of eWork diffusion in the Central European region.

1. Models of Transformation: The combination of the 'system specific' and the 'generic changes' in the Central European region

The mainstream view among the economists and political scientists — who observe and give advice in connection with the transformation process, from planned to market economy of the former state-socialist countries of Central Europe[1] — regarded this change as from one type of political-economic regime to another, ignoring any institutional continuity. The 'transition' was interpreted as a once-and-for-all shift from a political-economic regime based on the logic of central planning to another regime based on the logic of the market. This approach is often characterised by the 'sum-game' model of society, according to which the triumph of one social-economic system implies the complete failure of another. The societal developments seem to follow the rationality of revolution: without the complete destruction of the old institutions, it is almost impossible to create genuinely new institutions of the market economy. This view of 'transition' is related to a variety of other concepts.

First, the legacy of the socialist past represents institutional deficiency and limits the speed of diffusion of the market economy institutions, or slows down the transformation process.

Secondly, it overestimates the level of institutional coherence or homogeneity of the former socio-economic regimes, and neglects the diversity of regulations governing both individual and collective actions (Makó and Simonyi, 1992: 36-41).

Another, more balanced view (but one less popular both in the academic community and among the new political and economic actors) refutes the 'institutional vacuum' argument of the

[1] In the documents of both international organisations (*eg* EU, OECD, UNCTAD, World Bank, WTO *etc.*) and even in the majority of the academic papers, the notion of Eastern Europe/Eastern European is often applied to the Czech Republic, Hungary and Poland. In this study, however, we use the term Central Europe/Central European for this group of countries, which corresponds to their geographical location and historical and social-cultural features.

transformation.[1] This approach recognises the role of 'path-dependence' in the emerging new market institutions (*eg* privatisation, creation of an autonomous labour relations system, governance structures of the firms, implementation of 'leading-edge' management practices, *etc*.). This approach affords a better understanding of the variety of development trajectories in the post-socialist economies in the Central European region. As a representative of evolutionary development noted:

> *'Path-dependent emergence of a new, post-socialist form of capitalism calls for a complex evolutionary interpretation of this great transformation, as opposed to the big bang view which, as the metaphor itself suggests, forgot something historical was there before.' (Chavance, 1995: 288)*

In the decade or more of institutional changes within these post-socialist economies, the development of the post-socialist firms and management has been uneven. In this respect we have to note that it is not only privatisation itself that is important, but also the 'filters' through which it is experienced by the social actors (owners, managers, state, workers and their interest-representation organisations).

On evaluating the impacts of transferring managerial skills and organisations, it is worth calling attention to the risk of the mechanical and 'undersocialised' interpretation of the 'transfer'. To understand the learning of new values and new patterns of behaviour of both local and foreign managers and employees, it is necessary to treat organisational learning not only as interactive but also as multi-dimensional. A distinction should be made between 'technical-professional' versus 'social-cultural' forms of learning, and 'formal-explicit' versus 'tacit or hidden'.

Finally, the *speed* of the transformation process itself is also different in the three Central European countries surveyed. In addition to the undeniable dependence on past experiences ('path dependency'), the new 'model-creating' roles of such economic actors as foreign-owned firms, especially the norm-setting role of multinational corporations (MNCs) investing in greenfield sites, should also be mentioned. According to Makó (1997: 119), green-field sites function as accelerators of the diffusion of 'leading-edge' concepts and practices. To understand the impact of foreign

[1] By using the term 'transformation' instead of 'transition', we intend to refute the view of 'turn-key' capitalism in the post-socialist economies in the Central European region, as this view underestimates the importance of time for the social learning process in creating market economy institutions in these countries. The ideas of 'turn-key' or 'instant' capitalism view the future of the post-socialist countries as '… shaped by images of Western Europe's and North America's present … and this basically teleological development concept of changes anticipates future society which is not only desirable, but already known.' (Grabher, 1995:33)

direct investments (FDI) — a key component of the multi-dimensional process of globalisation — it is worth noting the heavy presence of foreign affiliates in both the manufacturing and the service sectors of the Central European countries.[1]

[1] According to the 2001 report of the OECD dealing with the knowledge economy, 'The share of turnover under foreign control in the manufacturing sector ranges from about 70 per cent in Hungary and Ireland to under 2 per cent in Japan. The share of foreign affiliates in manufacturing employment ranges from around 50 per cent in Ireland, Luxembourg, and Hungary to 1 per cent in Japan. … The share of turnover under foreign control in the service sector is relatively high, at over 20 per cent, for Hungary, Belgium, Ireland and Italy. In terms of employment, the share of foreign affiliates ranges from 19 per cent in Belgium and around 14 per cent in Hungary and Ireland to less than 1 per cent in Japan … In terms of employment, penetration of foreign affiliates seems evenly distributed between services and manufacturing in Belgium, Finland, Portugal and the Czech Republic. The largest imbalances are in Hungary and Luxembourg.' [*OECD Science, Technology and Industry Scoreboard (Towards a Knowledge-Based Economy)*, Paris: OECD Publications, 2001, pp. 102, 104]

2. Roles of Institutions in Transferring Organisational Practices in the Context of Globalisation

Changes related to the transformation from state-planned to market economy are often called 'system specific' (in contrast to the 'generic' changes like globalisation or the development of the e-economy). On analysing and assessing the impacts of 'generic' changes, we would like to stress the important 'filtering role' of the 'system specific' changes interpreted in an evolutionary perspective. To clarify the 'socialised' or 'embedded' character of the generic business functions analysed in this report, we have to make a distinction between 'macro-' and 'micro-institutional' patterns.

The mainstream literature emphasises a strong convergence of the institutional patterns in the process of globalisation, whether they are business, cultural or cultural-ideological in character (Ritzer, 1993).[1] There is a new trend in literature carrying various labels, such as the 'societal approach' or the 'French regulation school', whose representatives differentiate between micro- and macro-institutional patterns of society (such as the labour relations systems, education, legal and financial systems) which transform or change in the long run or in a historical perspective only.

In this context, the 'path-dependent' model of institutional development has strong relevance (Grabher and Stark, 1997; Zysman, 1994). Namely, the forces of globalisation are absorbed or mediated by these macro-patterns of institutions, and the various trajectories or paths of economic development are their outcomes. As Hage, one of the followers of the 'societal approach' puts it:

> *'What makes these systems* macro *is that they apply to the entire society and typically have been institutionalised for long time periods. A very common element is that there are multiple organisations involved, in which a variety of complex social roles are enacted. In contrast, simple* micro-institutional patterns *… represent relatively simple patterns or norms and/or laws, involving few actors with relatively simple and frequently repetitive social roles, and these*

[1] See the debates at the international annual Labour Process Conferences organised by both academics and practitioners on recent phenomena in both manufacturing and service work.

> *patterns have been relatively recent … Simple institutional patterns such as … quality work circles may diffuse throughout the advanced industrialised countries but complex patterns will not.* (Hage, 2000: 213).[1]

Similar conclusions were drawn from an empirical study of the service (hotel) sector on the diffusion and dominance of the 'hardware' (organising principles) and in an indirect way even of the 'software' (HRM) of the American model of international-isation, which were transferred and maintained relatively easily in hotels belonging to various national owners. (Nickson and Warhurst, 2001: 225)

In the next sections we focus on the analysis of the outsourcing of generic business services, which was the core topic of the EMERGENCE project.

Business services belong to the category of the micro-institutional patterns of society and economy, playing an important role in transferring knowledge and organisational patterns in the post-socialist Central European countries. According to our hypothesis, homogeneity or heterogeneity in the practices of outsourcing can serve as an indicator of the development trajectories of business organisations in these countries.

[1] It is also worth stressing the following: macro or '… complex - institutional patterns are strategic for two central problems current in social theory today. First, they systematically relate macro-institutional analysis to the meso-level of organisational analysis. Second, they explicate why there are path-dependencies in some aspects of society and not in others.' (Hage, 2000: 313)

3. Mapping eWork in the Newly Associated States: the Case of the Czech Republic, Hungary and Poland

3.1 Position of the Central European countries in the 'knowledge-based' economy and the key characteristics of eWork

In the first two sections we have tried to describe the nature of the social-economic and technological changes labelled as 'social-economic system specific' and 'generic' changes. These introductory sections may help us in evaluating the results of our empirical studies made in the course of the EMERGENCE project. This international comparative project has an ambitious goal: to understand the role and impact of the new information and communication technologies in the new division of labour both within and between the European regions as well as globally. It is well known that the Northeast of England, and Ireland, are favoured locations for call centres, and such cities as Cambridge, Stockholm and Stuttgart are attractive sites for research and development activities. However, less systematic knowledge is available on the EU applicant countries (often also called NAS — Newly Associated States) in Central Europe, whose presence has been increasing in market segments of generic business activities such as software development, or HRM and training. (EMERGENCE, 1999: 4)

In order to understand the strengths and weaknesses of the Newly Associated States (NAS) in generating eWork and employment, we first need to focus on the knowledge-based economy in general. To do so, we are going to use the publicly available statistics of both national and international organisations (*eg* national statistical offices, EU, OECD, *etc*.).

At a first glance, it is surprising to read that only a decade after the collapse of the state-planned political and economic system in the Central European countries, the Czech Republic and Hungary are on the new frontiers of digitisation. A recent publication by the STAR project (IST: Socio-Economic Trends Assessment of the Digital Revolution) noted that in Hungary and the Czech Republic:

> *'the diffusion of websites and the number of Internet users are higher than in Greece and Portugal…. In Greece and Hungary, small firms and individual entrepreneurs are more active in e-commerce than many of the larger firms or multinationals. The vision and enthusiasm of young entrepreneurs is an important success factor in these contexts.'* (*Europe – The Digital Way:* STAR, 2001: 3)

If we want to understand the relatively fast development of the Central European region (and especially the NAS (3) participating in the EMERGENCE project) we have to understand the general development of the knowledge-based economy in these counties. With this knowledge, it will be easier to understand and assess the performance of the NAS (3) in the European map of eWork, based on the results of the EMERGENCE project.

The new indicators used in a recent OECD (2001) publication show increasing knowledge-intensity in these economies. From among the various indicators we have selected the following ones:

- basic research
- size of the ICT sector
- global integration of economic activities
- internationalisation of industrial R&D activities
- international co-operation in science and technology
- investment in knowledge in a comparative perspective.

As regards basic research, its share, as a proportion of GDP, is low in Hungary, the Czech Republic and Poland, when compared with other OECD countries. However, the basic research expenditure relative to the total R&D is among the highest of all OECD countries. This is due to the collapse of the national applied research networks that took place during the transformation process in the 1990s. Nowadays, most of the applied research institutes are controlled by foreign capital. According to the definition of the OECD, accepted by the member states in 1998:

> *'… the ICT sector is a combination of manufacturing and service industries that capture, transmit and display data and information electronically'* (OECD, 2001: 84).

Using this definition, this sector has an exceptionally significant role:

> *'… in Ireland (35 per cent of manufacturing trade), Korea (32 per cent) and in the Netherlands, Japan, Hungary and Mexico, where it represented one quarter of total manufacturing trade in 1999.'* (op. cit.: 88)

According to both theoreticians and practitioners, there are close relations between globalisation and ICT use. Globalisation is conditioned by the diffusion of ICT and, vice versa, ICT is intensified by the process of globalisation. Without going into the

debate on the interpretation of economic globalisation (Makó, 2002), it is worth stressing its multidimensional process and dynamic character. Among other things, the various national economies are participating in this process in such diverse forms as the transfer of production technologies and facilities, capital and labour flows, trade in goods and services *etc*. In the next section we are going to deal with the intensive activities of foreign affiliates both in manufacturing and the service sector. In this respect, we have to call attention to the fact that the international trade-to-GDP ratio is high (>50 per cent) in the Czech Republic and Hungary. In addition, these countries have strong involvement in the process of internationalisation of industrial R&D*:*

> *'The share of foreign affiliates in industrial R&D … is over 70 per cent in Hungary, and 68 per cent in Ireland. At over 30 per cent the share of R&D conducted by foreign affiliates is also high in Spain, the Netherlands, the UK, Canada, Australia and the Czech Republic.'* (OECD, 2001: 106)

In this context, we have to mention the importance of the cross-border ownership of inventions. The share of foreign ownership in domestic inventions is high in the Czech Republic, Hungary and Poland. (The same holds true for such EU countries as Belgium, Luxembourg and Portugal.) Similarly, international co-operation in science and technology is extremely intensive in the smaller European countries (*eg* Austria, Belgium, Denmark, *etc*.). Among the post-socialist economies:

> *'… international scientific co-operation in science and technology is also relatively high in Hungary, Poland and the Czech Republic.'* (OECD, 2001: 112)

In spite of the remarkable development of the NAS (3) towards knowledge-based economy, we have to mention that these Central European countries are at a relatively early stage of their economic development and they produce goods, just like Ireland or Korea, that represent medium-high technology manufactures. Until the end of the 20th century, the ratio of knowledge investment in the Central European countries was lower than in either the EU (15) or in the OECD countries (see Table 3.1).

In spite of the fact that the employers and the organisations were the subject of both the EMERGENCE 18-country employer survey and the company case studies, we have to point out some structural differences relating to the sectors, employment status, job categories and work organisations between the 'candidate countries' (CC 12), including the NAS (3) of the EMERGENCE project, and the EU (15). (Working Conditions…, 2002: 2-3)

The proportion of people employed in agriculture is higher in the CC (12) (18 per cent) than in the EU (15) (five per cent), but there are wide differences among countries (highest in Romania with 45

Table 3.1: Investment in knowledge: Czech Republic, Hungary versus EU (15) and OECD countries (% of GDP, 1998)

Country	Total	R&D	Software	Public & private spending on higher education	Average annual growth rate: 1991–98
Czech Republic	3.3	1.3	1.2	0.8	..
Hungary	2.6	0.7	1.0	0.8	1.6
Poland	..	..	..	..	..
EU (15)	3.6	1.8	1.0	0.7	3.1
Total OECD	*4.7*	*2.2*	*1.2*	*1.2*	*3.4*

Source: *OECD, 2001, op. cit., 146*

per cent and lowest in the Czech Republic with five per cent). The share of the service sector is higher in the EU (15) (66 per cent) than in the candidate countries (55 per cent). The average proportion of self-employed is similar in both groups of countries, but the proportion of workers employed in the SME sector is higher in the candidate countries (37 per cent) than in the EU (15) (28 per cent). In the EU countries, the ratio of workers employed in the high-skilled job categories (*ie* people occupying jobs like managers, professionals and technicians) is higher (35 per cent) than in the candidate countries (29 per cent). As regards the gender issues, the activity rate of women is higher in the candidate countries (47 per cent) than in the EU (42 per cent); the highest value can be found in the Baltic States (50 per cent). In this respect, it is worth mentioning that the proportion of women employed in high-skilled job categories is higher in the CC (12) countries than in the EU (15).

The main features of the working conditions in the candidate countries, identified by the European Foundation survey carried out in 2001, are as follows (Working Conditions… 2002: 1):

Work organisation is less client driven, less decentralised (workers have less responsibility and autonomy), and more hierarchical.

Job demands, although of a different nature, are high, and job control (the autonomy workers retain to regulate their work) is lower.

Working hours are longer and less gender differentiated (female part-time is less frequent) and unsocial hours (such as shift and night-work) more frequent.

Fewer workers receive **training** and work does not provide as many learning opportunities.

Gender segregation is lower than in the EU, and the dual workload (the distribution of work in the home) is more gender balanced, although still far from being evenly balanced.

Working with computers is more frequent in the EU (15) than in the candidate countries (19 per cent vs 12 per cent), but in the case of Hungary it is similar (19 per cent).

3.2 Some characteristics of the sample: sectors and establishments surveyed in the EMERGENCE project

The 18-country EMERGENCE employer survey focused on the level of establishments and not on that of the employees. The survey was carried out in 2000 on a sample of 7,305 establishments employing more than 50 persons.

Various kinds of services (*eg* business/financial services) and public administration predominate (53.4 per cent) in the overall sample in comparison to the primary and secondary industry sector (46.5 per cent). In the NAS, the share of the primary and secondary industries is slightly lower (Czech Republic: 45.2 per cent, Hungary: 44.2 per cent, Poland: 44.4 per cent) (see Annex 1b).

When comparing the size of the companies surveyed by regions (see Annex 1c), it is worth calling attention to the extremely radical changes in organisational morphology in the ex-socialist counties. Until the late 1980s, large organisations were dominant, while in the 1990s already micro- and small firms represented the largest share in business organisations in these countries. The share of establishments with 50–200 employees in the NAS (3) participating in the employer survey is higher (37.2 per cent) than the EU (15) average (29.4 per cent), while in the category of establishments with more than 200 employees it is lower (62.8 per cent versus 70.6 per cent) (see Annex 1d). We have to mention, however, that there are significant differences among the three NAS in the size-structure of their establishments. In the case of firms with fewer than 50 employees, it is important to make a distinction between 'micro' (<10 employees) and 'small firms' (10–50). In Hungary, for instance, a great majority of the business organisations (96.4 per cent) belong to the category of 'micro' firms, as in Italy or the Czech Republic (83.8 per cent), whereas in Poland their share is only eight per cent. The combined category of 'micro' and 'small' firms represents the overwhelming proportion of firms in the Central European region: Czech Republic 96.56 per cent, Hungary 99.3 per cent and Poland 71 per cent (see Annex 1e). Unfortunately, due to the budget cut of the EMERGENCE project, this segment of business establishments is missing from the employer survey.

3.3 eWork, typology of delocalised activities and generic business services

The main objective of the employer survey of the EMERGENCE project was to analyse the delocalisation of various business services at the level of the establishment (for details see Huws and O'Regan, 2001). The large-scale international employer survey relied on the following typology of eWork, agreed to by the partners of the research consortium. The definition used in this project was:

> *'Any work which is carried out away from an establishment and managed from that establishment using information technology and a telecommunications link for receipt or delivery of the work.'*

Differentiating between the 'remote' and the 'telemediated' character of activities, the following nine categories of 'eWork' were listed (Huws and O'Regan, 2001: 5–6):

1. fully home-based working by employees
2. multi-locational or nomadic working by employees
3. freelance work carried out away from the premises
4. remote work carried out in remote 'in-house' (internally owned) back offices which are not call centres
5. work by employees carried out in remote 'in-house' (internally owned) call centres
6. work carried out by employees in telecottage or other remote third party premises which are not call centres
7. work carried out by employees in a telecottage or other remote third-party call centres
8. non call-centre work outsourced to business service suppliers
9. work outsourced to call centres.

Figure 3.1: Typology of work delocalisation

		Contractual	
		Internal/employees	**Outsourced**
Type of workplace	**Individualised (away from 'office' premises)**	Employed tele-homeworkers Mobile employees	Freelance teleworkers or mobile workers
	On shared 'office' premises	Remote back offices/call centres Employees working in telecottages or other third party premises	Specialist business service supply companies Outsourced call centres

Source: *Huws and O'Regan (2001)*

In the original conceptual framework, using legal dimension and type of workplace, four types of work delocalisation were distinguished (Figure 3.1).

Here we are going to analyse the 'generic business functions or services' and not the activity of the whole establishment. This method enables us to make a more accurate and consistent identification of the relocation of both 'traditional work' and 'eWork'. Using this approach, both the similarities and the differences in the practice of outsourcing various business functions can be revealed, and not only between the EU (15) member states and the NAS (3), but also within the three Central European states (the Czech Republic, Hungary and Poland).

In the course of the employer survey, data were collected on the following generic business services:

- sales (telemarketing and mobile sales)
- customer services, including information provision, counselling and advice
- data processing, typing, and other forms of data input
- design, editorial and other forms of creative or content-generating work, including research and development
- software development, maintenance and supports
- accounting, debt collection and other financial services
- general management, human resource management and training.

3.4 Demand for eWork in Europe: position of the NAS (3) in the new international division of labour

According to the definition of eWork used in the EMERGENCE project (meaning any work carried out away from an establishment and managed from there via ICT connection for either receiving or delivering the work) almost every second employer (49 per cent) surveyed already use some form of eWork (Huws and Reagan, 2001: 16).

When comparing the diffusion of eWork into the NAS (3), it is worthwhile not only to identify the position of these countries in relation to the EU (15) and Southern Europe (4) — including some relatively new EU members — but also to compare them within the group of NAS (see Table 3.2).

3.4.1 General characteristics of eWork diffusion in NAS (3) and in the various EU regions

The share of companies using eWork in the NAS (3) is higher (69.7 per cent) than either in the EU (15) (43.6 per cent) or in the

Table 3.2: Diffusion of eWork by the typology of the European welfare systems (%)

Regions by European welfare systems	Employing eWork practices in at least one business function: No	Yes	Total
A) UK and Ireland	56.1	43.4	100.0
B) Denmark, Finland, Sweden	31.8	68.2	100.0
C) Austria and Germany	66.2	33.8	100.0
D) France and Benelux States	63.1	36.9	100.0
E) Greece, Italy, Spain, Portugal	42.0	58.0	100.0
F) NAS (3): Czech Republic, Hungary, Poland	30.3	69.7	100.0
Total of EU (15) and NAS (3)	*51.6*	*48.4*	*100.0*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) plus Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

Southern or Mediterranean countries (58.0 per cent) and rather similar to the Nordic region (68.2 per cent) comprising Denmark, Finland, Sweden and Norway (based on Esping-Andersen G (1990), and adopted by the EMERGENCE project for the categorisation of the countries that were involved in the company case studies within the EMERGENCE project). Table 3.2 summarises eWork diffusion according to the categories developed by Esping-Andersen.

The geographic dimension does not always indicate a homogenising factor, while the visible similarities show the effects of such 'filtering-institutions' as the European welfare system. Group 'F' in the table, composed of former state-socialist economies of Central Europe, shows some similarities to the 'Nordic countries' (group 'B') which could be characterised as follows:

> *'These countries have strongly egalitarian welfare systems, a skilled workforce, a high diffusion of ICTs (of high quality and of exceptionally low cost) and a public culture of trust. However, they appear to have been less successful in attracting new delocalised employment from other countries.'* (Flecker and Kirschenhofer, 2002: 4)

In the case of the NAS (3), it is worthwhile to mention the following similarities and dissimilarities of development. In the former state-socialist economies of the Czech Republic, Poland and Hungary (especially in the first two) the impact of the institutional heritage of their former egalitarian welfare system is still rather strong. The dissimilarities of development are as follows: in comparison to the Nordic countries the NAS (3) have been extremely successful in attracting new delocalised employment from other countries.

As regards the costs of ICT use (especially of Internet use) in the post-socialist economies of the NAS (3), they are among the highest in Europe (*eg* the price of the Internet use in the Czech Republic and Hungary is about 2.5 times that of the OECD

average). The share of foreign subsidiaries in industrial R&D shows great differences: it is 70 per cent in Hungary (*cf* 68 per cent in Ireland) and 30 per cent in the Czech Republic (OECD, 2001: 106). As we have already mentioned, the ICT sector makes a significant contribution to the economies of all the NAS (3). In 1999, the year before the EMERGENCE 18-country employers survey was carried out, the ICT sector grew fast in Hungary and the Czech Republic:

> *'… ICT sector trade played a particularly important role in Ireland (35 per cent of manufacturing trade) … and the Netherlands, Japan, Hungary and Mexico, where it represented one quarter of total manufacturing trade in 1999.'* (OECD, 2001: 88)

Within the NAS (3), we see slight differences in the diffusion of eWork. The share of eWork in the Czech Republic (79.7 per cent) is about ten per cent higher than in Hungary (69.4 per cent) and 13 per cent higher than in Poland (66.7 per cent).

3.4.2 Size matters more in the NAS (3) than in the EU (15) countries. Similarities and differences within the group of NAS (3)

The size of business organisations changed dramatically in the NAS (3) following the collapse of the state-socialist system at the

Table 3.3: Size of manufacturing sector firms: state-socialist (planned) vs market economies

Sector (branch)	Planned economy[1]	Market economy[2]
Average number of employees per firm	197	80
Share of persons employed by large firms[3]	66%	32%
Clothing industry		
Average number of employees per firm	355	81
Share of persons employed by large firms	75%	17%
Machine industry		
Average number of employees per firm	253	82
Share of persons employed by large firms	61%	28%
Chemical industry		
Average number of employees per firm	325	104
Share of persons employed by large firms	79%	35%
Food Processing industry		
Average number of employees per firm	103	65
Share of persons employed by large firms	39%	16%

[1] Sample of the planned economies comprises the following countries: Czech Republic, GDR, Hungary and Poland.

[2] Sample of the market economies comprises the following countries: Austria, Belgium, France, Italy, Japan and Sweden.

[3] Large firm = >500 employees.

Source: Kornai, János (1992), The Political Economy of Communism, Princeton: Princeton University Press, p. 400

end of the 1980s. For more than 40 years the centrally-planned economies were often identified with the dominance of the large organisation and the almost complete lack of a micro-firms and SME sector. The differences in the size of firms between the state-socialist versus the market economies are illustrated in Table 3.3.

The size structure of organisations in the planned economies showed a 'slow reaction time' syndrome and 'micro-rigidity' in organising economic activities. In spite the substantial reforms launched earlier in both Hungary and Poland. The size structure of the economy changed radically in the 1990s in the course of privatisation and re-structuring of the post-socialist economies. Actually, one of the most radical changes that took place in the NAS (3) participating in the 18-country EMERGENCE survey was in the field of the size structure of the business organisations. Table 3.4 and Annex 1e illustrate well these changes in the Czech, Hungarian and Polish economies. The small firms are dominant in these countries, the share of firms employing less than 50 persons is the following: Czech Republic: 96.6 per cent, Hungary: 99.3 per cent and Poland 71.0 per cent. Within this, it is worth calling attention to the significant difference in the share of 'micro-firms' (employing fewer than ten people): their presence is extremely high in Hungary (96.4 per cent) — similar to that of Italy (94 per cent) — and also in the Czech Republic (83.7 per cent), whereas it is surprisingly low in Poland (8.0 per cent).

Evaluating the diffusion of eWork by company size, the following interesting contrast was found between the EU (15) and the NAS (3): the diffusion of eWork within the EU (15) countries is rather balanced between the firms employing 50–200 (41.7 per cent) and more than 200 persons (44.4 per cent). At the same time, in the NAS (3) the larger companies have greater eWork diffusion (71.9 per cent) in comparison to the smaller ones (64.5 per cent). On the whole, the dominant pattern is that the larger the size of the firm, the greater the use of eWork, but among the former socialist economies we can find significant differences. Due to the low share of 'micro-firms' in the Polish sample, the slightest differences in the diffusion of eWork by company size were found in this country: 3.6 per cent in favour of the larger firms (employing more than 200 employees). In the Czech Republic the difference was 8.5 per cent, while in the case of the Hungarian firms it was 21.1 per cent in favour of the large firms. In the case of Hungary, other surveys support the validity of the findings of our project. According to a survey conducted in the last quarter of 2001, almost 100 per cent of the large firms are connected to the global net and only 71 per cent of the small firms have Internet access. This survey explains the significant difference in Internet use by the relatively weak 'e-orientation' of the small business owners and the low priority of training. (Note: the Hungarian small firms do not even use the funds available to them for internal training programs (*ie* 30 per cent of the 1.5 per cent of their wage costs) (Hámor, 2002: 18). It is interesting to note that

Table 3.4. Differences in eWork diffusion by size of firm (%)

		Use of eWork		
Size of firm	**Region/Country**	**No**	**Yes**	**Total**
50–200 employees				
	EU (15)	58.3	41.7	100.0
	NAS (3)	35.8	64.5	100.0
	Czech Republic	26.3	73.7	100.0
	Hungary	45.2	54.8	100.0
	Poland	35.7	64.3	100.0
	Total	54.2	45.8	100.0
More than 200 employees				
	EU (15)	55.6	44.4	100.0
	NAS (3)	28.1	71.9	100.0
	Czech Republic	17.8	82.2.	100.0
	Hungary	24.3	75.7	100.0
	Poland	32.1	67.9	100.0
	Total	50.4	49.6	100.0

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) plus Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

even in the category of medium-size and large firms, only four per cent have an 'Internet-related strategy', while about one-fifth (18.5 per cent) of them have a plan to develop an Internet-based strategy. A further one-fifth of them are planning to survey the opportunities of e-commerce in the near future.

In the context of the size factor we can state that both in the '50–200 employees' and in the 'more than 200 employees' categories, the diffusion of eWork in the NAS (3) is higher than in the EU (15) countries (see Table 3.4 and section 3.4.4).

3.4.3 Use of eWork by sector and by generic business services: EU (15) versus NAS (3)

On identifying the diffusion of eWork by sectors in the 18-country EMERGENCE survey, the following pattern was found: in 'business and financial services' (54.4 per cent) and 'public administration' (48.5 per cent) a slightly higher diffusion of eWork was found than in primary and secondary industries (46.5 per cent) and 'other services, including education/health' (47.9 per cent). When comparing the EU (15) with the Czech Republic, Hungary and Poland, we may say that the diffusion of eWork in such old economic sectors as primary and secondary industries, and also in the 'business and financial' and 'other services' sector, is significantly higher in the Central European countries. The only exception is Poland, where the share of eWork in the sector of 'public administration' is lower (39.7 per cent as against 47.6 per

Table 3.5: Diffusion of eWork by sectors: EU (15) versus NAS (3) (%)

Sector	Region/Country	Use of eWork: No	Yes	Total
Primary and secondary industries				
	EU (15)	57.3	42.7	100.0
	Czech Republic	24.6	75.4	100.0
	Hungary	43.5	56.5	100.0
	Poland	37.5	62.5	100.0
	Total	*53.5*	*46.5*	*100.0*
Business and financial services				
	EU (15)	54.4	45.6	100.0
	Czech Republic	5.6	94.4	100.0
	Hungary	11.9	88.1	100.0
	Poland	16.9	83.1	100.0
	Total	*45.6*	*54.4*	*100.0*
Other services including education and health				
	EU (15)	57.2	42.8	100.0
	Czech Republic	26.3	73.7	100.0
	Hungary	23.3	76.7	100.0
	Poland	31.8	68.2	100.0
	Total	*52.1*	*47.9*	*100.0*
Public administration				
	EU (15)	52.4	47.6	100.0
	Czech Republic	—	100.0	100.0
	Hungary	30.8	69.2	100.0
	Poland	60.3	39.7	100.0
	Total	*51.5*	*48.5*	*100.0*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) plus Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

cent in the EU 15) (see Table 3.5). The relatively higher diffusion rate of 'eWork' in the service sector — compared with the manufacturing one — indicates the great 'flexibility potential' of ICT in organising work. In our opinion, eWork or ICT represents a universal tool to improve flexibility and control simultaneously, to mobilise clients, and also to treat workers or employees in an individualised way. Work in the service sector — by the inherent logic of this activity — is not only driven by the client, but the client actually replaces the role of the 'science of work' in shaping the working practice. In this respect we agree with the following statement:

> *'Il s'agit de fair appel au client pour remplacer la prescription, le controle ou en tous cas pour exercer la pression que ne peut plus*

exercer l'organisation du travail el meme … l'arbitraire et l'authorité sont rejetés en dehors de l'enterprise, c'est le client qui décide, c'est le client qui est le maitre.' (Linhart, 2002: 9)

ICT is a new vehicle to satisfy the need of faster adaptation to the pressure of: 'Intensified competition in the face of globalisation and the increased profit expectations arising from the dominance of the financial markets … [due to which they are] under pressure actually to exploit the cost-cutting and innovative opportunities that can arise …' (Flecker, 2002: 10). This is achieved, for example, by the use ICT in the process of delocalisation of various business functions. ICT is opening or facilitating a radical change in organising business activities, especially in the service sector. It is worth noting here that the role of the client in shaping work organisation and the so-called 'soft' skills (*eg* team working, communication) instead of technical professional skill are increasing (Brown, Green and Lauder, 2001). (On the increasing importance of 'soft' skills see the section in Chapter 4 on the company case studies.)

The relatively high diffusion of eWork in the service sector facilitates development and mobilisation of 'generic competence' (which includes not only the technical-professional but also the IT, communication and problem-solving skills of the employees) and this can help in overcoming the rigidities of the Fordist pattern of work organisation (Green and Sakamoto, 2001: 56).

Within the group of the NAS (3) there are visible disparities. Following the general pattern, the highest rate of eWork diffusion can be found in the 'business and financial services' which is followed by the 'other services including education and health'. In these sectors the share of ICT-related work is several times higher than the services performed traditionally. If we rank the NAS (3), the Czech Republic has the leading position, followed by Hungary, while Poland takes the third place. It is interesting to note that 'e-public administration' replaced the traditional 'public administration' in the Czech Republic.

As regards the way of practising various business services, for example, whether to keep them 'within the organisation', to 'outsource' them, or to combine the two methods, we can identity visible differences both between the EU (15) and the NAS (3) and also within the countries in the NAS (3) group. When comparing the EU member countries with the candidate states surveyed in the EMERGENCE project, we find the following dominant patterns in organising business services: the share of business functions kept within the organisation is higher in the NAS (3) than in the EU (15). Such business functions especially kept within firms are 'data processing' [NAS (3): 72.1 per cent vs. EU (15): 44.5 per cent] and 'accounting and other financial services' [NAS (3): 69.9 per cent vs. EU (15): 42.4 per cent]. In the case of generic business services, the Czech organisations investigated are more eager to keep them within the organisation than the Hungarian

Table 3.6. Business services practised within the organisation: the case of the NAS (3) (%)

	EWork practice in at least one function		
Region/Country	**No**	**Yes**	**Total**
Data processing			
EU (15)	54.5	45.5	100.0
Czech Republic	22.3	77.7	100.0
Hungary	26.5	73.5	100.0
Poland	19.8	70.2	100.0
Total	*49.1*	*50.9*	*100.0*
Accounting and other financial services			
EU (15)	57.6	42.4	100.0
Czech Republic	20.0	80.0	100.0
Hungary	31.0	69.0	100.0
Poland	32.7	67.3	100.0
Total	*52.4*	*47.6*	*100.0*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) plus Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

and Polish firms. For illustration, we have selected two business functions ('data processing' and 'accounting'), which show the highest rate of business services practised within the organisation in comparison with the EU (15) (see Table 3.6).

The practice of organising these business services within the firm in the NAS (3) cannot be explained by just one reason. Several factors may play a role in this. Following the logic of the so-called 'path-dependency' in organising economic activities in the post-socialist economies, one of the factors is the organisational heritage of keeping as many functions as possible within the organisation. Another reason is the practice of treating 'accounting and other financial services' and 'data processing' as core activities that have to be kept inside the firms. This holds true primarily for medium and large firms (>50 employees). Finally, we have to mention that the motivations of the management of these firms to cut costs by outsourcing these activities are weaker than the risks they feel are related to the loss of control over these activities.

The instability of the tax-system, the oft-changing regulations of the business activities in these countries (almost every year, or at least following every national election) and the costs of reporting, controlling, and supervising these activities are all factors hindering outsourcing.

Uncertainty in the regulation of business activities and the extremely high taxation of wage costs seem to give an explanation for the 'hybrid' character of outsourcing practice in the NAS (3). In

legal terms the generic business functions are outsourced, while in organisational terms they are kept and controlled within the premises of the firm. The next section focuses on this particular development of business activities — enabled by ICT — in the post-socialist economies of the Central European region.

3.4.4 Visible differences in outsourced business functions: the case of the NAS (3)

Below, we attempt to answer the following questions: Is it possible to identify differences among the EU countries and especially among the Central European countries of the EMERGENCE project in their regional economic development and their economic competitiveness by way of measuring practices of the various business functions? In other words, is it possible to draw statistically supported conclusions about the relationship between the practice of outsourcing and the indicators of economic development of the regions surveyed?[1]

The questionnaire used in the 18-country employer survey measured both the demand (the establishment practises the function) and the supply (the establishment offers the function) sides of the establishments investigated. In our analysis we are focusing exclusively on the demand side for the following reason: it is obvious that the establishments surveyed may generate demand for business services almost independently from the type of their activity, while on the supply side only the business services limited to the activity of the establishment are present.

Also, from a methodological point of view it is more challenging to concentrate on the demand side of the generic business services or functions. A software development company, for example, is present in the market of all the seven generic business functions (*ie* it may generate demand for all these), while on the supply side it is only present in the 'software development, maintenance and support' market. As we are going to measure regional economic development in Central Europe (EMERGENCE NAS) through the relations between 'in house' versus 'outsourced' practices of general business services, it is clearly the demand side that is in the centre of our attention.[2]

Table 3.7 illustrates the practices of various business services in the EU (15) and the NAS (3).

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[1] The main characteristics of the 18-country EMERGENCE employer survey are given in Annex 1a–1e, while the simplified structure of the questionnaire used in the survey is presented in Annex 2.

[2] The combination of the analyses of both the demand and the supply sides would undoubtedly be very useful , but for lack of space, we are concentrating here only on the demand side.

Table 3.7: Practising generic business services: EU (15) versus NAS (3) (%)

	Customer services	Sales	Data processing	Software development	Accounting	HRM/ training	Creative/ editing work
EU (15) average	76.4	24.4	57.6	70.8	95.9	88.8	54.9
Czech Republic	91.4	44.4	87.2	90.4	97.9	95.7	69.5
Hungary	60.5	33.4	48.2	69.2	97.3	86.0	61.5
Poland	90.1	42.6	78.0	69.5	95.1	84.8	69.5
Average	*76.5*	*25.9*	*58.6*	*71.2*	*96.0*	*88.8*	*56.0*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) plus Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

The ratio of practising various business services is higher in the NAS (3) than in the EU (15). While in the EU (15) countries, one establishment is practising 4.68 functions on average (from the maximum 7), in the group of the EU candidate countries the average is 5.09, which is a statistically significant difference. At first sight this astonishing difference can be attributed to the 'institutional heritage' of the way of organising economic activities. Namely, the organisational morphology of the former state-socialist system was characterised by the dominance of large state-owned firms, which, due to their large size, practised all generic business and social functions (Hirschhausen, 1995: 54-76). Following the collapse of the state-socialist political and economic system, the former large state-owned firms were transformed, through various schemes of privatisation, into small and medium-size enterprises (SME). As part of the organisational-cultural heritage, the new owners and managers in the SME sector continued to follow the organisational routines they were used to. If we want to understand the present practice of general business services in the Central European economies, we have to analyse it in a historical context, as this approach is essential in interpreting the employer survey data. At the same time, the SME sector in the EU (15) countries is functioning in a matured capitalist environment, and establishments are practising only such functions or services that are consistent with their size. In other words, SMEs in the EU (15) members states have more developed links (networks) and they exchange resources and information more intensively to develop more appropriate solutions to cope with challenges in the new economy. Besides the earlier-mentioned uncertainties in the institutional and financial regulations, the underdeveloped system of networking between large firms and SMEs may also explain the higher concentration of business services within the organisation.

These findings support the idea of using the so-called 'multi-factor' or 'hybridisation' argument in interpreting the development of such 'micro-institutional patterns' as generic business services in the NAS (3). Integrating the dimension of 'time' into our analysis, we may suppose that these differences in organising

work will either gradually disappear, with practices in the NAS approaching those in the EU, or a 'mutation' of outsourcing practice will develop.

A comparison of business functions within the group of NAS (3) shows that the ratio of business services of Hungarian establishments is closer to the EU (15) average than to that of the other two candidate countries'.

As the comparison of aggregated data of 'generic business services' helps in understanding the relation between the 'micro' and 'macro' dimensions of economic processes, in the next subsection we are concentrating on the 'way of practising' generic business functions.

'Way of practising' various business services

Theoretically, in both private and public organisations, any kind of business services can be practised in three ways:

1. in-house
2. outsourced
3. a combination of (1) and (2).

In the first case, the business function is carried out within the organisation by persons with an employment contract. In the second case, the establishment is buying a service from another person (*eg* freelancer or e-lancer) or organisation (specialist business suppliers) (see in detail in Figure 3.2). These two cases are rather clear and well known in the history of over 200 years of outsourcing.[1] The third option of outsourcing covers a multi-dimensional phenomenon that we may interpret in the following ways:

3/1: some elements of the business function are practised in-house, while some others are outsourced

3/2: the function is outsourced in legal terms, but is carried out within the organisation.

The following examples illustrate these dimensions. For 3/1: in connection with accounting, inventory taking is carried out in-

[1] Adam Smith wrote more than 200 years ago: 'The maxim of every prudent master is never to attempt to make at home what it will cost him more than to buy.' In the nineteenth century, before the advent of the big integrated firm, outsourcing was the norm. Firms were small or loosely co-ordinated, labour supply was plentiful, and product markets fragmented and relatively stable: circumstances which allowed outsourcing to flourish.' (Reilly and Tamkin, 1996: *Outsourcing: a Flexible Option for the Future?,* Institute for Employment Studies, Report 320, p. 1.

Figure 3.2: Forms of 'in-house' versus 'outsourced' activities by legal and organisational terms

		Legal terms	
		Covered by employment contract	**Covered by working contract**
Organisational spaces	**In organisation**	Traditional practice of business functions	Subcontractor under direct control of the customer firm
	Outside the employer's organisation	Outsourced practice of business function (*eg* CC in charge of employer)	Traditional and e-forms of outsourcing (*eg* business service suppliers with or without ICT link)

Source: EMERGENCE project, 2002

house by the employees of the firm, while balance-sheet analysis, auditing and the preparation of VAT *etc.* are outsourced to a financial services supplier operating in a different location on its own premises. An example for 3/2: all activities related to the accounting service are carried out by a financial service supplier, but all is done on the customer firm's premises.

In company practice, the organisation of the business service related activities is usually more complicated than in the above examples. For instance, all accounting tasks are outsourced and carried out by a financial services supplier, but some tasks are carried out on the customer firm's premises, while others on the premises of the financial services supplier. Or, in another case, all accounting-related tasks are carried out by the customer firm's own employees, but in the rented office of a financial supplier firm, using its infrastructure and know-how.

These problems should be analysed in two dimensions:

1. In-house or outsourced activities in legal terms ('employment contract' vs. 'working contract with supplier')
2. 'In-house' or 'outsourced' activities in terms of organisational space[1] ('customer's own organisation or premises', or 'organisation or premises of the service supplier').

The various forms of 'outsourcing' are summarised in Figure 3.2.

[1] The French 'effet-societal' school of sociology is making distinction between various forms of 'spaces' within and beside the organisation, *eg* 'organisational space', 'industrial space', 'qualificational space' *etc.* The 'space' describes both the modes of existence of employees within the firm and the way in which that firm manages their mobility, resources and social relations. Thus it can be both structured and structuring, results or resource, and is able to take account of both stability and dynamics, reproduction and change.' [Maurice M (2000), 'The Paradoxes of Societal Analysis', (in) Maurice M and Sorge A (eds.), *Embedding Organizations, (Societal Analysis of Actors, Organizations and Socio-Economic Context*), Amsterdam and Philadelphia: John Benjamins Publishing Company, p. 19.]

In the next subsection we will give an analysis based on the 'legal dimension' of practising business functions in two different cases. In the first, the subcontractors are operating within the customer's organisation (*ie* on the customer's premises), while in the second, the subcontractors are operating on their own premises. In the latter case, we may distinguish between the so-called traditional outsourcing, when service suppliers do not use ICT (or 'virtual service', where the organisation and the workplaces communicate with the customers via integrated computer and telephone and/or Internet network), and e-outsourcing, when both the receipt and the delivery of the service are based on the use of ICT.

Outsourcing business services: heterogeneous practices in the Central European countries

Which of the three key forms of practising business functions (*ie* in-house, outsourced or a combination) an employer chooses depends on various factors (*eg* restructuring at company group level, scarcity of the appropriate skill and knowledge on the local labour market, cost-efficiency, level of uncertainty in the field of regulation, *etc.*). As we intend to map regional differences among the countries in the project, we first have to answer the questions: Which forms of practice are favoured by which region? Are these differences significant or not? Are we able to interpret these differences as an approximate indicator of economic development or competitiveness of a region or country concerned?

The ways of practising business functions or services were evaluated along four major dimensions:

1. **Four cardinal points**

   North

   West

   South

   East

2. **Typology of the European welfare systems**[1]

   Region A (UK, Ireland)

   Region B (Denmark, Finland, Sweden)

   Region C (Austria, Germany)

   Region D (Benelux, France)

[1] The typology of the European welfare systems was developed by G Esping-Andersen and adopted into the analysis of the company case studies by the Austrian consortium partners. The original A–E categories were completed with the category of the NAS. [Flecker J and Kirschenhofer S (2001), *EMERGENCE: Regional reports of the qualitative company case studies,* Deliverable 18 and 20, Vienna: FORBA.]

Region E (Greece, Italy, Spain, Portugal)

Region F (Czech Republic, Hungary, Poland)

3. **EU membership**

   EU (15) member states

   NAS (3)

4. **Differences within the NAS (3) in comparison to the EU (15)**

   Czech Republic

   Hungary

   Poland

   EU (15) countries

On evaluating the practice of generic business functions according to these four dimensions, we can identify statistically significant patterns in all four groups. Table 3.8 summarises the results of the data analysis.

The data presented in Table 3.8 show us how many of the seven generic business functions or services are practised in-house, outsourced or combined, in the establishments surveyed, according to the four analytical categories. Looking at this table, we can find significant differences among the regions surveyed in the project, and this result is also supported by the variance analyses of the variables. (Based on the results of the dispersion analysis, we have to note that the regional differences are significant.)

We now deal with the differences within the NAS (3)group. On comparing these countries, a strong heterogeneity can be identified: Hungarian establishments have the lowest ratio of business services 'in-house' (3.19), the highest ratio of 'outsourcing' (0.66) and the lowest ratio of outsourcing 'within the organisation' (0.70). These data support our hypothesis on the relationship between the method of outsourcing and the level of economic development. Namely, the Hungarian service-providing SME sector, in comparison to both the Czech and the Polish one, seems to be stronger and more capable of organising various business services on its own premises. Therefore, the outsourced business functions kept within the customer premises is the lowest in Hungary in the group of NAS (3).

If we also include the number of business functions practised in our analysis, the above hypothesis is supported by the empirical data: the average number of business functions practised by the EU (15) countries' firms is 4.6, while in the Czech case it is 5.7, in the Polish one 5.2 and in the Hungarian case 4.5, which is closest to the EU (15) countries' average.

Table 3.8. Average number of business functions according to various analytical dimensions

Dimensions	Major forms of practising business functions: In-house (a)	Outsourced (b)	(a) + (b)
1. Four poles			
North	3.53	0.23	1.07
West	3.86	0.20	0.47
South	3.64	0.40	0.81
East	3.64	0.60	0.84
2. EU welfare system			
(A) UK, Ireland	4.08	0.29	0.42
(B) Denmark, Finland, Sweden	3.58	0.23	1.07
(C) Austria, Germany	4.24	0.21	0.35
(D) Benelux countries, France	3.43	0.14	0.58
(E) Greece, Italy, Spain, Portugal	3.64	0.40	0.81
(F) Czech Republic, Hungary, Poland	3.64	0.60	0.84
3. EU (15) versus NAS (3)			
EU (15)	3.75***	0.26	0.65
NAS (3)	3.64***	0.60	0.84
4. Differences within NAS (3) in comparison with EU (15) average			
EU (15) average	3.75	0.26	0.65
Czech Republic	4.14	0.64	0.96
Hungary	3.19	0.66	0.70
Poland	3.83	0.49	0.94
Average	*3.74*	*0.30*	*0.67*

sig <0.001 (*** sig=0.051)

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) countries plus Czech Republic, Hungary and Poland. Weighted base: 7,305

E-outsourcing is different from the traditional form of outsourcing, since in this case the business service supplier's work is enabled by ICT. The establishments may delocalise their activities into a variety of locations where they may organise the business functions in different ways. We consider that an establishment belongs to the category of 'e-outsourcer' if it uses ICT at one location at least, while an employer who does not use any ICT links on its premises is qualified as a 'traditional outsourcer'. (In the EMERGENCE employer survey, 'e-outsourcing' covered business services supplied with ICT support.)

Table 3.9 compares e-outsourcing in the three NAS with the EU and exhibits some strong contrasts. If we take the 'traditional' functions of sales, data entry (or typing) and accountancy, we find little difference between the two regional groupings. However,

Table 3.9: E-outsourcing: EU (15) versus NAS (3) (firms that outsourced at least one business function with the help of ICT) (%)

Regions, countries	Customer services	Sales	Data processing	Software development	Accounting	HRM/ training	Creative work
EU (15) country average	2.7	1.3	3.5	24.1	2.7	5.2	14.4
NAS (3) average	9.4	3.4	2.6	42.7	2.2	16.4	31.2
Czech Republic	6.6	3.5	2.7	43.2	5.2	19.4	49.3
Hungary	3.7	2.6	3.8	47.1	5.3	17.5	33.0
Poland	11.6	3.6	2.3	41.5	0.6	15.2	25.5
Total	*4.0*	*1.7*	*3.3*	*27.5*	*2.6*	*7.3*	*17.5*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); percentage of establishments with >50 employees in EU (15) countries plus Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

the functions that could be said to be those most centrally involved in the modernisation process in transitional economies show very dramatic differences.

The first of these is software development, the function most likely to be involved in eWork, and especially e-outsourcing. In the EU, nearly a quarter of establishments (24.1 per cent) outsource this function. In the Newly Associated States, however, this proportion leaps to four in ten (42.7 per cent on average).

The second area where modern capitalist practices differ markedly from those traditionally practiced in these states is Human Resources Management and consultancy. Here too, levels of outsourcing are much higher in the Newly Associated States, at an average of 16.4 per cent, compared with only 5.2 per cent in the EU.

This suggests a considerable need to acquire external expertise in these countries. This high level is also consistent with the above-average levels of foreign ownership in these transitional economies. It is likely that in many cases, external expertise in management and technology comes as part of the FDI package.

A similar pattern can be found with creative functions (where 31.2 per cent of NAS establishments use external suppliers, compared with 14.4 in the EU). Here, whilst there is some outsourcing overseas, the pattern can partially be explained by in-country outsourcing to small firms and eLancers.

We also find that levels of outsourcing of customer services functions are significantly higher in the NAS than the EU, at an average of 9.4 per cent, compared with only 2.7 per cent across the EU. This is mainly caused by exceptionally high levels in Poland (at 11.6 per cent) and is also consistent with an economy dominated — at least amongst larger firms — by branches of foreign firms.

4. Delocalisation of Business Services. A Multi-Dimensional Organisational Phenomenon: lessons from the EMERGENCE company case studies

4.1 Characteristics of the company case study sample

In order to better understand the complex processes of the delocalisation of certain business functions and to be able to give qualitative analyses, the EMERGENCE research team carried out 62 company case studies across Europe, focusing on ICT-assisted relocation of various business services. In the NAS (3) (Czech Republic, Hungary and Poland), ten case studies were researched.[1] (At FORBA's request, the Polish team contributed an extra case study.) The seven functions and the number of relocation cases per function are summarised in Table 4.1.

The majority of the case studies represent 'trans-regional' relocation, while only two of them belong to the category of 'trans-national' relocation of eWork.

Table 4.1: Sample of company case studies in NAS (3)

Function	Type of business services	No. of case studies
1	Telesales	1
2	Customer service	—
3	Data processing/data input	3
4	Design, editorial and other forms of creative or content-generating work, including R and D	2
5	Software development, maintenance and support	3
6	Accounting, debt collection and other financial services	—
7	Human resource management and training	1

Source: EMERGENCE project, 2002

[1] The company case studies which, together with the 18-country employer survey and the global statistical analysis, represent an integral part of the EMERGENCE project, were co-ordinated by Jörg Flecker (FORBA, Austria), and the authors would like to express their gratitude to him and his team members, especially to Sabine Kirschenhofer.

The so-called 'trans-national' cases occurred in the Hungarian sample. The first one is 'Dunasys', which is a subsidiary of a global IT company in the Hungarian capital. This firm, due to the shortage of IT specialists in the capital's labour market, outsourced a part of its activity to a South Hungarian university city ('Softwork'). The other company is an Internet broker firm, called 'Intermed', and belongs to the category of 'trans-national' or 'cross border' relocation of business activity. This company is a radically new type of firm, its core activity being 'global brokering' by using the Internet for projects of variable duration and value. The majority of the Hungarian case studies focus on the practice of software development and maintenance and were carried out in the software, IT and telecommunication sector.

Table 4.2: Overview of relocation cases in Central Europe

Country	Nickname	Business functions	Sector (source company)	Size	Out-sourcing: Yes/No	Geographical dimensions	No. of jobs involved*
Czech Republic	'Labour Office'	(7) HRM	Public sector	Large	No	*Transregional:* from one Czech town to another	*New jobs:* 13
	'SCC'	(3) Data processing	Research & consulting	SME	No	*Transregional:* from Prague to rural area	*New jobs:* 3
	'JOE'	(3) Data processing	Business services	SME	Yes	*Transregional*: from one Czech town to another	*New jobs:* 3
Hungary	'Teleco'	(1) Telesales	Software, IT, telecom	Large	No	*Transregional:* from Budapest to 'virtual' sales centres	*New jobs:* 15
	'Dunasys'	(5) Software development	Software, IT, telecom	Large	No	*Cross-border: Vienna to Budapest*	*New jobs:* 415
	'Intermed'	(5) Software development	Software, IT, telecom	SME	Yes	*Cross-border:* from UK to Budapest Western Siberia (Russia)	*New jobs:* 6 in Budapest 11 in Siberia
	'Softwork'	(5) Software development	Software, IT, telecom	SME	Yes	*Transregional:* from Budapest to another Hungarian region	*New jobs:* 35
Poland	'Translate'	(4) Creative function	Business services	SME	Yes	*Transregional:* from Warsaw to subcontractors in different regions	*New jobs:* 500
	'Handitech'	(4) Creative function	Training	SME	No	*Transregional:* from Warsaw to another Polish city	*New jobs:* no data
	'Cable'	(3) Data processing	Manu-facturing	SME	No	*Transregional:* from Warsaw to a Polish town	*New jobs:* 105

* Transferrals (full- and part-time jobs) from source to destination are included. These are jobs lost through relocation or not filled locally, *ie* jobs that could have been created at source location but are now at the destination instead.

Source: *Flecker J, Kirschenhofer S (2001), The EMERGENCE Company Case Studies Report, Deliverable 20, (IST 1999-133420), Wien: FORBA, p. 2*

Another characteristic of the Hungarian sample is that it is composed exclusively of larger firms.

In contrast, the majority of the Czech and Polish cases were carried out in the group of small and medium-size firms. The Czech studies focused mainly on activities related to 'data processing and data input' ('SC-C' and 'JOE'), while the Polish ones focused on the delocalisation of 'creative functions' ('Transpol' and 'Handitech'). The case studies carried out in the Central European region covered five generic business functions out of the total seven, and only 'customer service' and 'accounting and other financial activities' are missing. It is interesting to mention the positive job-creation role of the delocalisation of various business services: in the post-socialist economies surveyed, more than a thousand (1,106) new jobs were created in this way. More than half of these new jobs (54.7 per cent) were created in Poland, more than two-fifths (43.6 per cent) of them in Hungary, with less than two per cent created in the Czech Republic.

4.2 Motives and primary objectives of eWork delocalisation

Using the typology patterns resulting from the relocation of eWork, elaborated by Flecker (2002: 6), some core variables, such as 'background or rational' and 'primary objectives' of relocation, have been distinguished and summarised (Table 4.3), based on the company case studies carried out in the Central European region.

It is clear from Table 4.3 that all relocations targeted to the Central European region — with the exception of the Polish 'Cable' —

Table 4.3: Motives of relocating business functions using ICT: the case of NAS (3)

Background/ Motivation ▷	**Company reorganisation**		**Isolated measures**	
Primary objective ▽	**Concentration (Reduction)**	**Decentralisation (Expansion)**	**Complementing (Expansion)**	**Replacement (Reduction)**
Geographic relocation	**I.**	**III.** 'Dunasys' (H) (Software) 'Softwork' (H) (Software) 'Teleco' (H) (Software)	**V.** 'Labour Office' (Cz) (HRM) 'SCC' (Cz) (Data processing) 'JOE' (Cz) (Data processing)	**VII.**
Outsourcing	**II.**	**IV.** 'Handitech' (PL) (Creative activity) 'Translate' (PL) (Creative activity)	**VI.** 'Intermed' (H) (Telesales)	**VIII.** 'Cable' (PL) (Data processing)

Source: The dimensions for the analysis of the case studies were elaborated by the Vienna based well-known research institute FORBA. See in detail: Flecker and Kirschenhofer (2002: 12)

belong to the category of expansion of business activities. This may explain the positive effects of delocalised work on employment at the destination. This pattern is clearly visible in the case of Poland and Hungary. As regards the attractiveness of the destination location, we may say that contrary to the expectations of the policy makers responsible for employment, delocalisation of business services favours large cities (metropolitan areas) or smaller cities if they have an important university to supply the necessary skills for these types of activities.

If we examine the causes and background to work delocalisation at the companies in the NAS (3), we find that they mentioned company reorganisation and isolated measures in about the same proportion, while the majority of them (seven cases) named geographical relocation. The remaining three cases belong to the category of outsourcing with the help of ICT. These dimensions of delocalisation of work revealed by the company case studies indicate the complex and dynamic character of this new form of division of labour in the global information technology environment. In the next section, we are going to add further arguments to the analysis of the company case studies made earlier (Flecker and Kirschenhofer, 2002). This will concern not only the extremely complex nature of this type of job mobility but also the roads or patterns of development facilitated or constrained by the use of ICT.

4.3 eWork relocations: dimensions of organisational changes and skill use

The report entitled *Jobs on the Move: European Case Studies in Relocating EWork* (Flecker and Kirschenhofer, 2002) analysed the issues of relocation in an original way and convinced the reader of the multi-dimensional nature of eWork delocalisation. The authors of this report distinguished the following types of relocation of eWork (op. cit.: 12-28):

- geographic concentration in the group or company network as a rationalisation strategy
- concentration and outsourcing
- relocation in the group in the course of expansion or decentralisation
- expansion and decentralisation through outsourcing
- isolated expansive relocation
- isolated expansionary relocation through outsourcing
- isolated relocation as rationalisation
- replacement relocation through outsourcing.

In our company case study analysis, we intend to concentrate on the changing nature of work organisation and skill use in the so-called 'e-organisation settings'. Looking at the above-listed types of eWork relocation, we can state that our cases belong to the categories of 'company re-organisation' and 'isolated measures'. In the first case, both 'decentralisation through geographic relocation — expansion' (III) and 'decentralisation — expansion using the tool of outsourcing' (IV) will be analysed, while in the second case, a new 'e-networking' practice will illustrate the 'isolated expansionary relocation through outsourcing' (VI).

4.3.1 Dynamic aspects of eWork delocalisation: from the 'low-road' to the 'high-road' option of manpower and skill use (the case of software development)

In the transnational IT firms, the pressure of increased competition elicited by globalisation is an important push factor for using relocation in the course of expansion of software development and maintenance. This is usually realised within the company group or network (III), where both skilled labour force and relatively lower wages are available. Of the Central European company case studies, those of 'Dunasys' and 'Softwork' belong to this category. In this context it is worth calling attention to the significant role of local actors in these subsidiary firms in shaping the division of labour within the company group (*eg* by increasing their autonomy) in a medium-term perspective. At the first stage of co-operation, IT experts from the Central European region (Hungary, Slovakia, the Czech Republic and Croatia) worked and learnt at the core units of the transnational IT company (*eg* in Vienna, *etc*.). In the second step, following a company group level decision to reorganise business services, new subsidiary firms, like 'Dunasys' and 'Softwork', were established in some Central European post-socialist countries. The efficiency of 'project organisation' does not only depend on the technical and professional skills of the IT experts, but also on their so-called 'soft skills' (like team-working, communication, problem-solving, interpersonal and self-management skills). The fact that the position of the destination company improved in the division of labour (*ie* it moved away from the simple software maintenance job in the direction of project management) could be explained by its success in taking the 'high-road' option of knowledge management. (The 'low-road' option of the organisational learning process is based on short-term cost-reduction and the further standardisation of work, or on the organisational paradigm of new-Fordism.) The 'high-road' type of development — often compared to the so-called 'double loop' organisational learning — is driven by the following structure of knowledge creation (Ahanotu N D, in Warhurst, 2002: 2):

- production — learning by doing (on-the-job training — OJT)

- experimentation — reflection, trial and error, innovation capacity
- diffusion — collectivisation of gained individual experimental knowledge.

In order to develop the 'soft-skills' necessary to 'double loop' organisational learning, the city university supplies the necessary IT skills for 'Softwork' and is eager to develop closer relations with the software company in order to better match educational and training demand and supply. They not only develop the curriculum or the syllabus of the courses together, but have also implemented the practice of collective graduate theses. Through the process of 'project type' dissertation writing, instead of the standard practice of individual dissertation writing, the 'would-be' IT experts, who wish to work at 'Softwork', already have the 'soft skills' necessary for efficient project work when they are recruited.

> *'The excellent relation with the city university is extremely important, because the company prefers to hire fresh graduates. The staff of the university accepted the following proposal of the company: graduates finishing the university write in the form of team their final dissertation. The practice of team-working during studies has particular importance for 'Softwork', because their employees are participating in the 'project oriented' working settings.'* (Hungarian case study 3, p. 11.)

In this way, the company may save time and cost via a shorter organisational learning process, and may develop a better position in the network of the subsidiary of the international IT company. In the case of both 'Dunasys' and 'Softwork' the equal access to all information via their 'e-network', the 'intranet', may facilitate the dissemination and collectivisation of individual knowledge.

The competition between various units of the international technology group ('Crownsoft') was based more on the 'collective' than on the 'individual' resources of knowledge. But the development of this type of collective resources — composed not only of technical-professional but also social-cultural skills — is rather difficult and requires innovative company practice.

> *'Employers were unanimous in the view that if technical upgrading was a requirement it could be provided by the company without great difficulty, but developing a culture of personal responsibility, team-working, and learning was more difficult.'* (Brown, 2001: 41)

4.3.2 ICT as a tool to combine the high and low involvement working systems: towards a new Fordism? (The case of outsourcing creative activities)

The case of the Polish company 'Translate' illustrates the type of eWork delocalisation where a company restructuring related to

expanding activities and decentralisation is realised through outsourcing (IV). In addition to basic languages (English, German, French and Russian) the company also provides translation services in 37 other languages, from Arabic to Chinese. The following quotations from letters of reference illustrate the high quality service of the company:

> *'Even the most difficult technical materials present no problems to translators from the company …' (France Telecom)*
>
> *'Translation provided by 'Translate' to date have been prepared professionally and within agreed time frames, and thus we have decided to select this company as our major partner in translations of all technical documentation …'*
>
> (Polish case study 1. p. 4.)

The use of ICT (*ie* group-wide software) has greatly facilitated the expansion of the company via outsourcing and it surpassed the early pragmatic phase of work organisation when supervision and the execution of tasks were not divided between owners and managers. ('At the very beginning the two founders of the company were responsible for everything: they translated, they were responsible for marketing and for office work. They received orders and wrote invoices.' Polish case study 1. p. 9.) Beside the use of ICT, the implementation of the ISO 9002 quality assurance system also worked in the direction of standardisation and specialisation, *ie* new-Fordism. This quality assurance system:

- allows the company to identify the expectations of its clients
- defines scopes of responsibilities of individual staff members
- ensures that the service (product) satisfy the established requirements
- guarantees effective procedures to deal with service defections.

The benefits of the use of eWork (easy and fast transmission of data, low costs and easy correction of the translated material) facilitated the outsourcing of translations. Via outsourcing, 'Translate' created a dual-organisational structure: (1) the core workers, employed in the head office, with high personal involvement in the work, and (2) translators employed as teleworkers, maintaining mainly e-communication with the company. The following quotations illustrate the differences in working conditions and the involvement of these two segments of the workforce.

Core employee:

> *'As employees we are very involved in development of the company and we identify with it very strongly. I am emotionally very tied to the company, maybe because … Employees are responsible for writing weekly reports on things that happen in the company. These reports describe both positive and negative aspects of contacts with clients and*

with translators. Every week a report is prepared about new clients of the company. Communicating through email facilitates quick communication …'

External or peripheral workers related via telework to the 'Translate' company:

'He has never been in the office of the company and he has not met any of its employees. The only form of contact between this translator and the company are e-mail and telephone. Before he became teleworker for many years he worked for the Polish army, then he worked at an electronics factory but it was closed down due to economic difficulties. Although he had quite a number of offers of work related with the electronic industry (he had a lot of experiences in this field, he often travelled for training abroad), he did not want to undertake full time work. He moved out of Warsaw and for a few years he focused on fruit farming (with success, even without professional background) and on translation of technical texts in the field of electronics.' (Polish case study 10, 12-13.)

The case of 'Translate' illustrates well the potential flexibility of ICT use, both in work organisation and in the use of human resources in combining the high-involvement working system for the 'core workers' (*eg* ISO 9002, self-reporting *etc.*) with the standardised and closely supervised tasks of the e-organisation (communication), in the case of outsourced activities carried out by teleworkers.

4.3.3 An emerging new pattern of network organisation: ICT offers a tool of outsourcing practice for micro- and small firms (the case of an emerging global internet broker firm)

The type of delocalisation of eWork labelled *isolated expansionary relocation via outsourcing* (VI) covers a recently expanding new form of networking in organising economic activities in a global context. We call this relatively new organisational form global Internet broker firms.

At the end of the 1990s, the range of opportunities for firms wishing to outsource work expanded dramatically with the introduction of a number of new companies which extensively use the Internet as a means to facilitate the outsourcing of work that can be transmitted via ICT. The Internet-based 'project outsourcing intermediaries' or 'Internet-based broker firms' — like 'Intermed' — connect small firms and individual freelancers ('e-lancers') with expertise and capabilities to supply that work (referred to as destination or supplier firms). These intermediaries accomplish this by consolidating thousands of suppliers into one database and then by using the efficiency of the Internet, they broker the suppliers' services to clients for a small commission. In doing so they have created a virtual marketplace for buying and selling digital work. They complement these marketplaces with a range of value added services such as escrow account base

payment facilities, bidding mechanisms, and dispute settlement systems. This allows clients and suppliers to collaborate within their system from initial contact through to the completion of the project. The originality of this emerging organisational solution enabled by ICT is that it opens up the outsourcing perspective — which is limited in the 'old economy' to the cluster of the medium and large-firms — to the groups of micro- and small firms. No longer is outsourcing only viable for medium- and long-term projects or functional relocations (analysed in the EMERGENCE 18-country employer survey); these intermediaries projects with values as low as $10 US and lasting only a few hours, can be outsourced to skilled individuals or firms anywhere.

A number of these intermediaries, like 'Intermed', have already achieved sufficient scale to become important enablers in the development and expansion of eWork globally. Today, small firms and individual entrepreneurs from Beijing to Belgrade or Budapest are building websites and writing travel guides for companies in London, New York, and San Francisco. Typical projects cost $2,000 US and last for a few months or less.

The story of 'Intermed' is as follows. A British company specialised in selling used printing presses world-wide planned to completely redesign its web-site with the aim of putting the core business on the Internet. The requirements were defined and they called for tenders. A one-person British company won the project and looked for the right subcontractor at a London-based project outsourcing agency ('Brighterwork'). This project outsourcing company put the job requirements on the Internet, and from among the 12 offers, a Hungarian company ('Intermed') won the contract, having outbid a Scandinavian and a British company which were also on the shortlist. 'Intermed', which finally developed the website, employed programmers and web designers in Western Siberia. In all, six people are employed on the sales and project management team in the Hungarian capital and a further 11 people in a development office in Western Siberia (Flecker and Kirschenhofer, 2002: 23).

We have to stress the importance of ICT (especially of e-mail) in the work of Internet broker firms. With the client (the British agent for used printing presses), the project outsourcing company ('Brighterwork') communicated via email for routine business, but also through regular face-to-face meetings in critical cases.

During the development process, it took approximately 60 emails from the client to 'Intermed' to accomplish and clarify the specification. Of these, approximately 20 were change requests for work already accomplished. Average turnaround of a message could be substantial in many cases. When something was initiated by the client, the project outsourcer ('Brighterwork') would generally get a change request late morning. It may have been another half day until 'Intermed' received it. If required by the

developers, it would then be translated and sent to Russia via an Internet message board system or email, adding another half day. Any message sent from the end user would generally take one or two full days to reach its destination. For 'Intermed', luckily there was always concurrent work to be accomplished, otherwise the lag would result in delays and idle workers. However, for both parties:

> *'email proved to be a superb way of working. All agreed that it overcame spatial and time zone constraints, it forced economy and clarity of communications, and it also allowed for personality and humour to shine through.'* (Hungarian case study 4, p. 15)

Finally, it is useful to stress the advantages of the Internet based outsourcing processes compared to the standard outsourcing process. While they are embracing outsourcing as a means to develop projects, many companies have not had the tools or the capabilities to excel in this new environment. Moreover, many of the firms that have ventured along this route have run into difficulties. Many have gone to two or three suppliers before finding a reliable partner, and have experienced missed deadlines, cost overruns, and quality failure. In a survey carried out by an outsourcing institute, the mangers surveyed agreed that the current transaction process was too slow, too complicated, and too costly. The reason for this, they felt, was that they did not have the resources at their disposal to effectively research and manage the outsourcing of projects.

New skills and resources are required for firms to succeed in this new environment. Creating new relationships quickly, managing them effectively, and making the systems work with remote suppliers will increasingly require special management activities. Unfortunately, this is an unfamiliar territory for most executives, even in the USA. In the survey mentioned above, only one in every five respondents (21 per cent) felt that they and their colleagues were ready to manage in such an environment. This is where the Internet can help.

Intermediaries may find a number of solutions to the issues described above through Internet-based outsourcing. The main advantages of using the Internet for outsourcing are as follows (Koval and Makó, 2001: 6–7):

- It cuts transaction costs: these costs include not only finding the relevant suppliers, but also the comparative costs of planning, adapting and monitoring the completion of a project, and the setting up of governance structures.
- It offers increased speed*:* companies located across the world are able to locate, assess and commence work with each other faster than previously imagined in the 'old economy'.
- It reduces the potential for moral hazard: in the Internet community everyone is your neighbour. With this comes the

exposure and transparency that cuts the risks of opportunistic behaviour such as revising prices, delivering lower than agreed quality, or terminating a contract without warning.

It helps to codify and disseminate best practices: Internet-based outsourcing intermediaries put into place world-class systems for researching, procuring, and managing projects. Moreover, it gives outsourcing managers and project leaders relatively 'instant access' to those systems and allows to tailor them to suit the needs of their individual projects.

The briefly presented practice of 'Intermed' illustrates the case of a successful Hungarian dot.com which has managed to survive the storms. The Belgian and Russian founders of the company, in their recent interview published in the English weekly of the Hungarian capital, stressed the similarities and differences with other businesses:

> *'Internet businesses are the same as bricks-and-mortar businesses … In fact, it is harder in some areas, for example customer service, where you have to work harder to prove yourself more to get customer's confidence – many people think of Internet business as being about automation, the truth is that you must be very customer-oriented. Building a brand is just as important in the Internet business as in any other.'* (Allan, 2002: 7)

In relation to the future perspective of the 'Internet broker firms', we have to speak about the strategic impact of the Internet outsourcing intermediaries on both client and supplier firms. For the client project outsourcing company, the 'Internet broker' may help him to modify business and concentrate on what he does best, *eg* development and implementation of web strategies, and outsource all other work. The head of the British project outsourcing company ('Brighterwork') noted: 'They allow me to prioritise my business and get on with that rather than technical coding.' For the supplier company the situation is more complicated. At the early stage, when it was important to get reference projects, they eagerly used the services of the Internet outsourcing intermediaries. But after consolidation of the business activities, suppliers are looking for other means to get work, such as direct mail or even hiring a European sales representative. This indicates the following: the Internet broker firms are not only a new form of organisational networking in a global context, but they also represent an interim stage of firm development based on the use of ICT.

5. Conclusion

The Central European (CE) countries participating in the EMERGENCE project made significant progress on the road towards a knowledge-based economy. According to the latest reports of various international organisations and projects (*eg* OECD, EU, *etc*.), one decade after the collapse of the state-socialist political system, a strong relationship can be seen between globalisation and ICT use. The share of international trade in the GDP is high, over 50 per cent), as is the share of foreign affiliates in national industrial R&D and also of foreign ownership in inventions and scientific co-operation. However, the CE countries are still at an early stage of their development towards a knowledge-based economy, and they mainly produce goods, just like Ireland and Korea, which belong to the category of medium-high technology.

These countries have made progress in other fields, too, outperforming several EU member countries (*eg* the activity rate of women is higher, the workload between females and males is more balanced *etc*.). But, in spite of this, they still have to make significant efforts to harmonise their working conditions and practices with those of the EU countries. For example, the share of the service sector in the EU (15) is higher than in the NAS (3); work organisation in the NAS(3) is less client-driven, less decentralised and more hierarchical than in the EU member states, and also, employees in the CE countries have less autonomy in their work than their colleagues in the EU. The results of the global statistical survey of the EMERGENCE project call attention to the different positions of the CE countries in the new global division of labour in the field of eWork. Using a six-cluster grouping to locate countries in the division of eWork (namely: 'eLeaders', 'eCapables', 'eHares', 'eTigers', 'eMaybes' and 'eLosers'), Hungary belongs in the category of 'eHares', *ie* into the group of small countries with a historical heritage of underdeveloped telecom infrastructure but high speed growth in mainlines per capita, which are quite attractive for ICT-enabled work delocalisation. Poland is classified as an 'eTiger', that is, a large country with similar heritage but with abundant '… human resources and often already taking much of the relocated employment …' (Huws, Jagger and Bates, 2001: 48).

The lessons learned from the EMERGENCE 18-country employer survey and the case studies give us more insight in understanding the patterns and dynamism of eWork diffusion in the NAS (3) in comparison with the EU (15), and also within the group of NAS (3). The most striking result of the survey is that the share of eWork in the establishments in the NAS (3) is higher than in the EU (15) or in the Mediterranean countries, and is more comparable to the Nordic region.

Another visible difference can be seen in the size factor. The Czech Republic, Hungary and Poland radically restructured the organisational morphology of their economies in the first decade following the collapse of the state-socialist political and economic system. Their over-centralised and over-hierarchical organisational structure was transformed into a less hierarchical one, in which micro- and small firms dominate.

As regards eWork diffusion in the economy by sectors, the general pattern in the NAS (3) is the following: the presence of eWork is slightly stronger in the service sector than in primary and secondary industries. In the EU (15) a similar pattern was identified, but in the NAS (3) a more intensive use of eWork was found — with the exception of the Polish public sector. In the three CE countries, the share of ICT-related work in the 'business and financial services' and 'other services' sectors is several times higher than in the services practised in a traditional way. Within the NAS (3), the Czech Republic is the leader, followed by Hungary and Poland. The intensive role of ICT in the service sector of these countries can greatly contribute to improving client orientation, and developing more flexible working practices and so-called 'generic competences' (such as IT, communication and problem solving).

The ways of organising generic business functions indicate both differences and similarities between the EU (15) and the NAS (3). For example, the share of various business functions kept within the employers' premises (or organisation) was higher in the NAS (3) than in the EU (15). This pattern is especially clear in such functions as 'data processing' and 'accounting and other financial services'. Within the group of NAS (3) the Czech employers are more eager than their Hungarian and Polish counterparts to keep generic business functions within the firm. There is no single explanation for this management practice in the CE countries. Instead, the cumulative effects of the following four factors should be stressed:

- cultural heritage of the over-centralised and over-concentrated organisational practice of the state-socialist past
- uncertainty in the field of institutional and financial regulations of economic activities (*eg* often changing taxation system)

- the cost-cutting benefits of outsourcing is marginal
- there is weak networking between the host-country micro- and small firm owners and the large foreign corporations (MNCs).

In the outsourcing practice of the NAS (3) the following heterogeneous practice was registered: Hungarian establishments investigated in the EMERGENCE 18-country employer survey had the lowest ratio of in-house business services and the highest ratio of outsourcing. With regard to the diffusion of e-outsourcing in comparison with traditional (or standard) outsourcing, we have to mention that e-outsourcing is not very popular among mangers. As a result, except for customer services, traditional outsourcing is dominant. Within the NAS (3) the Polish employers are at the forefront in the field of e-outsourcing.

This statistical view needs to be complemented by an understanding of the dynamic aspects of eWork diffusion learned from the company case studies.

The experiences gained from the results of the company case studies concerning the various backgrounds, motives and forms of delocalisation of business services using ICT (*eg* company level re-structuring or isolated managerial decision) indicate that this process is not only complex but dynamic as well. The transnational delocalisation of software development activities, for instance, well illustrates the changing roles of the local actors in taking the option of either the 'high' or the 'low' road version of development of their working practice. In other words, the actors of delocalised activities in the CE countries may modify their starting position in different directions and their initial dependence on the source company may change into mutually advantageous relations. The case of creative activities (*eg* translation) well illustrates the cumulative changes, instead of revolutionary ones, in the working practice supported by ICT. Instead of a radical break with the Fordist type of work organisation, ICT-facilitated outsourcing widens the opportunities for combining the high-involvement working system in the core firm and the standardised-specialised task-structure in the case of the outsourced activities. We call this path of working practice development as 'New Fordism'.

Finally, ICT offers a powerful tool for the micro- and small firms to become global. The case of the emerging global Internet broker firm is a good illustration of the emergence of a new way of organising business activities. Enabled by ICT, project-based firms can apply such new organisational solutions, which may provide possibilities of outsourcing in a global dimension for micro- and small firms, too. In the old economy such practice was an option only for medium and large firms.

In the light of the empirical and theoretical evidences of the EMERGENCE project (the core social and economic policy relevant lessons concerning the diffusion of eWork in the CE countries) we may stress not only the multidimensional and dynamic character of this phenomenon, but also the 'power tool' character of ICT in opening up new opportunities for various actors, without guaranteeing automatic general improvements in working methods and practices.

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Annexes

Annex 1. General data about the companies in the sample

Annex 1a

Planned and real sample by countries

Country	Size of the planned sample (a)	Sizes of the real number (b)	Ratio (b: a)
Austria	300	150	0.50
Belgium	300	172	0.57
Czech Republic	**350**	**260**	**0.74**
Denmark	300	31	0.10
Finland	400	92	0.23
France	800	1,074	1.34
Germany	800	1,801	2.25
Greece	300	174	0.58
Hungary	**350**	**206**	**0.59**
Ireland	300	36	0.12
Italy	800	558	0.70
Luxembourg	100	8	0.08
Netherlands	400	148	0.37
Poland	**350**	**884**	**2.53**
Portugal	300	157	0.52
Spain	700	633	0.90
Sweden	400	145	0.36
UK	800	776	0.97
TOTAL:	*8,050*	*7,305*	*0.91*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); per cent of establishments with >50 employees in EU (15) plus Czech Republic, Hungary, and Poland. Weighted base: 7,305 cases

Annex 1b

Business sectors in the sample by countries (%)

Country	Primary & secondary industries	Business & financial services	Other services	Public admin
Austria	44.7	25.3	27.3	2.7
Belgium	41.3	25.0	27.9	5.8
Czech Republic	45.2	20. 7	29.5	4.6
Denmark	62.5	21.9	15.6	–
Finland	54.3	13.0	29.3	3.3
France	44.4	20.1	29.0	6.5
Germany	52.3	17.1	24.9	5.7
Greece	51.4	13.3	30.1	5.2
Hungary	44.2	20.2	28.8	6.7
Ireland	68.6	–	28.6	2.9
Italy	57.2	7.0	29.0	6.8
Luxembourg	42.9	42.9	14.3	–
Netherlands	66.9	25.0	6.8	1.4
Poland	44.4	20.1	28.9	6.6
Portugal	64.6	7.6	23.4	4.4
Spain	37.1	18.6	25.9	18.3
Sweden	56.9	7.6	31.9	3.5
UK	27.6	16.9	49.1	6.4
TOTAL:	*46.5*	*17.4*	*29.2*	*6.9*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); per cent of establishments with >50 employees in EU (15) plus the Czech Republic, Hungary, and Poland. Weighted base: 7,305 cases

Annex 1c

The size of the companies in the sample by countries (%)

Countries	Number of employees	
	50-200	more than 200
Austria	50.4	49.6
Belgium	50.2	49.8
Czech Republic	63.1	36.9
Denmark	61.9	38.1
Finland	52.5	47.5
France	38.0	62.0
Germany	50.0	50.0
Greece	55.7	44.3
Hungary	64.2	35.8
Ireland	53.8	46.2
Italy	50.1	49.9
Luxembourg	56.3	43.7
Netherlands	50.0	50.0
Poland	51.6	48.4
Portugal	51.7	48.3
Spain	50.3	49.7
Sweden	55.9	44.1
UK	48.4	51.6
TOTAL:	*50.8*	*49.2*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); per cent of establishments with >50 employees in EU (15) plus the Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

Annex 1d

Share of establishments by size in the regions of the sample

	Share of establishment by size in the sample (%)	
Region	**50–200 persons**	**> 200**
EU (15) average	29.4	70.6
EU NAS (Czech Republic, Hungary, Poland) average	37.2	62.8
TOTAL	*30.1*	*69.0*

Source: EMERGENCE European Employer Survey, 2000 (IES/NOP); per cent of establishments with >50 employees in EU (15) plus the Czech Republic, Hungary and Poland. Weighted base: 7,305 cases

Annex 1e

Firms' size structure in the NAS (Czech Republic, Hungary, Poland) (1st December 2000)

Firm size categories	Czech Republic*		Hungary**		Poland***	
	no. of firms	% of firms	no. of firms	% of firms	no. of firms	% of firms
Micro firms (<10 persons)	311,121	83.77	788,664	96.4	4,674	8.0
Small firms (10–49 persons)	47,487	12.79	23,701	2.9	36,485	63.0
Medium size firms (50–249 persons)	10,793	2.91	4,821	0.6	13,748	23.8
Large firms (>250 persons)	1,991	0.54	1,105	0.1	3,010	5.2
TOTAL	*371,392*	*100.0*	*818,291*	*100.0*	*57,917*	*100.0*

*Sources: * Register of Firms, Czech Statistical Office, (in Czech) Prague, June 2001. (Ales Krupa – Institute of Labour and Social Affairs, Prague); ** Laky Teréz (2001) Labour Market Report (in Hungarian), Budapest: State Employment Service and Employment Office, p. 14; ***Size of Firms in Poland, (Podmioty gospodarcze wg rodzajow I miejsc prowadzenia dzialalnosci w 2000 g*

Annex 2. Structure of the EMERGENCE Questionnaire