

Research Note

**Economic Modernisation in Hungary:
Between Path Dependency and
Path Creation**

(匈牙利經濟現代化：
路徑依賴與路徑創造之間)

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Abstract

The present analysis focuses on the restructuring process of the Hungarian economy which has been taking place from the early 1990s and on the possibility to integrate it into the new international division of labour. The Introduction outlines various interpretations of the transformation process in the Central and East European (CEE) region. Instead of the rather simplistic view of transition, the authors adopt the more balanced transformation approach in the interpretation of the past 15 years' changes. The second section analyses the role of Foreign Direct Investments (FDI) in the modernisation of the Hungarian economy. By doing so, two different cycles of the transformation process are distinguished. According to the authors, nowadays we are witnessing a shift to a creative cycle of the transformation in which new paths of development have to be created in order to maintain the relatively good economic position of Hungary among the other CEE countries. To illustrate the possibilities and chances of the creation of such a new development path, the authors take the examples of work delocalisation through eWork and organisational innovations together with the related issue of production paradigms on the basis of international empirical research results. The authors interpret eWork not only as a new tool of working enabled by ICT, but as a tool to integrate Hungarian firms into the global value chains. By stressing the importance of organisational innovations, the authors argue that more efforts should be made to better understand and overcome the social-cultural and economic barriers (e.g. industrial age management culture in the labour process) of the flexible use of manpower and knowledge. A horizontal underlying assumption of the authors is that economic modernisation in Hungary can not be successful in

the long run without the integration of the small and medium-sized enterprises(SMEs).

Keywords: international division of labour, foreign direct investments, modernisation, new development path, work delocalisation

中文摘要

本文的分析重點在於自 1990 年代早期開始的匈牙利經濟再結構化過程；及其過程整合至新國際勞動分工的可能性。

導論概述了對中東歐區域轉型過程的多樣解釋，較之以單純的觀點看待這些轉換的過程，筆者對過去 15 年來的變遷解釋，採用了一個更加均衡 (more balanced) 的轉型進路。

第二段分析了國外投資指導 (Foreign Direct Investments) 在匈牙利經濟現代化過程中扮演的角色，藉此區分出 2 種不同轉型過程的週期 (cycle)。筆者認為，當今我們正目擊一個轉變中，具創造性的轉型週期 (cycle)。此中所創造的新發展路徑，乃為了維繫相對其他中東歐國家而言，匈牙利較好的經濟地位。

為了說明創造如此新發展路徑的可能性和機會，筆者以國際經驗性研究結果為基礎，以透過電子化作業 (eWork) 與組織創新而達到的去地域化 (delocation) 及其生產模型的議題為例，解釋電子作業 (eWork) 不只是因 ICT 而成為可用的新工具，同時也將匈牙利緊密地整合入全球價值的鎖鍊中。透過強調組織創新的重要性，筆者主張在彈性運用人力與知識的時候，應對社會——文化與經濟的隔閡 (barriers) 作更多的努力與理解（如工業時代裡有關勞動過程的管理文化）。

筆者在本文的一個基本設定是：沒有中小企業的整合，匈牙利的經濟現代化無法獲得長期成功。

關鍵字：國際勞動分工、國外投資指導、現代化、新發展路徑、作業去地域化 (Work Delocalisation)

A. Introduction – Conflicting Approaches on the Transformation Process: ‘Institutional Vacuum’ versus ‘Path Dependency’ Views

In 2004 the following eight Central and Eastern European(CEE) countries joined to the European Union: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia. The accession was the result of a 15-year transformation process from a state-socialist politico-economic regime to a market-orientated one but not only the starting point of these countries but the roads they took differ greatly. In spite of the variety in their development in the past such similarities could be identified (Kornai 2005: 915)

1. The aim of the transition was to create a capitalist system in the economy and a democratic system in the politics.
2. It was a fundamental transition affecting all spheres in parallel: the economic life, the political structure, political ideologies, legal system and the society.
3. The transition took place everywhere in a peaceful way.
4. The transition took place relatively fast(i.e. during 10-15 years).

Nevertheless, beside these rather generic similarities it would be difficult to detect to any other common characteristic in the way these countries wanted to achieve the abovementioned goals(e.g. the privatisation process took place in a rather different way in such neighbouring countries as Hungary and the Czech Republic).

How to interpret these changes? In the social sciences, the early 1990s were a period when studying these “transformation economies” was one of

the most popular topics, which visibly enriched the literature dealing with the political, economic and social changes. In this decade, two theoretical concepts were competing in the social sciences aimed at interpreting these changes.

According to the mainstream view this "transition process" can be 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 "zero sum game" model of society, according to which the triumph of one social-economic system implies the complete failure of the other. In other words, 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 & Simonyi 1992: 36-41)

Another, more balanced view refutes the "institutional vacuum" argument of the transformation.¹ This approach recognises the role of "path-

¹By using the term "transition" instead of "transformation", 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).

dependence" in the emerging new market institutions(e.g. privatisation, creation of autonomous labour relations system, governance structures of the firms, implementation of "leading-edge" management practices, etc.), the core importance of which is to better understand the variety of development trajectories in the post-socialist economies in the CEE 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, as the metaphor itself suggests, which forgot something historical was there before."(Chavance 1995: 288)

One of the most important lessons learnt from more than a decade-long (1990-2005) experience of institutional changes in the post-socialist economies in the CEE region is the necessity to use the evolutionary interpretation of the socio-economic changes as opposed to the "big-bang" or "instant-capitalism" views. The other lesson is that 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). For example, evaluating the impacts of transferring managerial skills, work organisation models or leading edge technologies, it is worth calling attention to the risk of the mechanical and "under-socialised" interpretation of the "transfer". To understand the importance of acquiring new values and new patterns of behaviour, it is necessary to treat organisational learning not only as an interactive but also as a multi-dimensional process. Distinction should be made between "technical-professional" versus "social-cultural" and "formal-explicit" versus "tacit or hidden" forms. Finally, the speed of the transformation process itself is also different in the CEE countries.

The negative side of the path dependency is that under certain circumstances it can turn into the so-called “lock-in” situations. Schienstock and Hamalainen(2001) define these lock-ins as follows: ‘A “lock-in” ’ exists when a specific development path in an economy exhausts itself, indicated by a loss of competitiveness, retarding economic growth, and increasing unemployment.’(Schienstock and Hamalainen 2001: 91) Different actors (entrepreneurs, policy makers, trade union leaders, etc.) have to face this problem and find new possible development path. The authors describe this process as path creation: “Path creation is seen as a process of mindful deviation; it implies dis-embedding from the structures that embed economic actors.”(Schienstock and Hamalainen 2001: 91) Completing Kornai’s review on the similarities of the transformation process taken place in the CEE region, we can state that this phenomenon is also somewhat common in all CEE countries from 1990 until today. In all of these countries strategic actors had to face severe structural social, economic and financial problems and find out how can they solve them on the basis of the past experiences.

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 green-field investments of multinational corporations(MNCs) should also be mentioned. (Makó 1997: 119) According to our experiences, not only green-field or brown-field investments are accelerators of the diffusion of organisational and managerial innovations, but the recent delocalisation of various business functions plays a similar role. Due to the special significance of FDI in creating new development paths — together with the movement of delocalisation — the following sections are presenting some outcomes of these phenomena.

B. FDI-based Economic Modernisation in Hungary: Asymmetric Development Outcomes

The FDI-based Hungarian economic development strategy of the early 1990s resulted in a fast “destruction” of the institutional-organisational structures of the former state socialist economy and in a fast creation of the market economy institutions. These changes are reflected — among others — in the high productivity growth in the manufacturing sector, relatively low level of unemployment rate, high share of export. International organisations (like OECD, IMF, World Bank) considered Hungarian economy as a kind of “best practice” of the CEE region and was often compared to Ireland (see Table 1).

Table 1 Comparison of the most important economic indicators of the CEE countries

	GDP growth (2001) (1990=100)	GDP/capita (2001)(PPS)	Productivity growth (1989-2001)	Productivity growth in manufacturing sector (1989-2001)	Unemployment rate (2002)(%)	Share of export (2002)(%)
Czech Republic	102	60	2,15	3,09	7,3	65
Poland	145	41	3,09	6,65	19,9	30
Slovakia	108	49	2,39	2,05	18,7	73
Slovenia	124	74	3,07	3,17	6,0	58
Hungary	113	54	4,05	7,68	5,9	64
EU-15	125	100	1,54	-	7,6	34

Source: Fink, Ph., 2006, p.8

The primary drivers of the economic modernisation in Hungary are the multinational companies (MNCs) compared to which the Hungarian-owned firms performs relatively poor: at the end of the 1990s 90% of the Hungarian

export and 80% of the Hungarian import were performed by foreign-owned firms.

A recent trend in FDI inflows indicates that the share of Hungary FDI targeting the CEE region is decreasing from the year 2000. More important, the structure of FDI is also changing: labour-intensive production activities are replaced by capital-intensive ones and the share of knowledge-intensive services and development activities is also growing.

Among the economists, it is a mainstream view that "The reserves of once successful attractive factors were exhausted. Investors' interest turned to other investment targets. Under the conditions that pertained, the capital absorption capacity of the country may also have become saturated. The decline on both the demand and supply sides is interpreted here as an end of a period of capital attraction. To revive the capital inflows will require the establishment and strengthening of new attraction features." (Szanyi, M., 2003: 10)

Unfortunately, the Hungarian economic modernisation strategy failed to integrate the Hungarian SME sector into the activities of MNCs. This failure produced further inequalities in the performance of the Hungarian economy. For example, firms with mixed ownership and firms owned by foreigners are significantly more active both in product and process innovations in comparison to the Hungarian-owned companies.

In order to diminish the asymmetric character of the Hungarian modernisation process based on FDI, the so-called creative cycle of the transformation process should pave the road to the new path of the development.²

²The word "creative" refer here to the emergence of a new or learning economy and to the importance of eliminating the asymmetric economic structure sketched above.

2.1 Perspectives of New Path Creation: ‘Creative’ Cycle of the Transformation Process

In the first cycle of the transformation process—which lasted until the second half of the 1990s-, the key motives of FDI were “market seeking” and “efficiency seeking”, while in the new cycle of development “knowledge seeking” is the main incentive(Makó 2003). To survive in the context of global competition, these countries are competing to attract various business functions of MNCs at the expense of the low value-added operations.³

In the next section, we will call attention to the process of delocalising generic business functions which represents a combination of technological and organisational innovations. Compared to technological changes in previous period(like the automatisisation of production in the 1970s), ICT represent a special kind of “organisational technology” which may facilitate the transformation of intra-organisational structures of knowledge use and communication.(Ramioul, M. et al. 2006: 7) The international empirical experiences call attention to the often underestimated impact of the organisational and cultural factors shaping the use of eWork. Adopting this position, next section treats eWork as a form of organisational innovation and stresses the importance of the labour process analysis.

³The position of CEE countries in the “knowledge-based economy” is surprisingly good. For example, according to the OECD 2001 report, the role of the ICT sector is extremely significant in Hungary: “... in Ireland (35 per cent of the manufacturing trade), Korea (32 per cent) and in the Netherlands, Japan, Hungary and Mexico, where it represented one quarter of the total manufacturing trade in 1999” and “... international scientific co-operation in science and technology is also relatively high in Hungary, Poland and the Czech Republic.” (OECD, 2001, *Science, Technology and Industrial Scoreboard: Towards a Knowledge-based Economy*, pp. 84 and 112, Paris: OECD.

C. Work Delocalisation: An Opportunity to Participate in Global Economy

3.1. The Typology of Work Delocalisation: the Case of Generic Business Functions

In the earlier sections we argued that in the new(creative) cycle of the development the motives of the cost efficiency of the FDI is completed by the driver of the knowledge-seeking. In this context the growing use of ICT is another important feature in the modernisation process and intensifies the trend of globalisation. In economic terms globalisation covers high mobility of goods and services, capital and labour. One of the key components of the mobility of services is the delocalisation of various business functions. From a geographical point of view, this process of delocalisation can be carried out within a region, a country or across countries and even continents. In the 1990s, eWork as a form of organisational innovations played an essential role in the delocalisation of business functions. eWork is broadly defined as “any information work that 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.”⁴

The EMERGENCE employers' survey(2000) — which covered 7268 employers in 18 European countries: the 15 EU member states plus the Czech Republic, Hungary and Poland — aimed to measure the opinion of employers on the delocalisation of following business functions:

- 1.customer service, including information supply, counselling and

⁴This definition was accepted by the EMERGENCE consortium partners. EMERGENCE is a research project financed by the EU 5th Framework Programme. Details on the project design and major steps are available on <http://www.emergence.nu> or Mako, Cs and Keszi, R., 2003.

advice.

- 2.sales(telemarketing and mobile sales).
- 3.data processing, typing and other forms of data input.
- 4.software development, maintenance and support.
- 5.accounting, debt collection and other financial services.
- 6.human resource management and training.
- 7.design, editorial and other forms of creative or content-generating work including research and development.

3.2. Delocalisation of Business Services in Europe: Attractiveness of the CEE Region

Using the broad definition of eWork presented above, we can say that every second(49 percent) employer interviewed in the 18-country employers' survey is already practising eWork to some extent. Comparing leading countries in the use of eWork, we may identify the following two country clusters: "high-tech and high-income" economies(e.g. Germany, the Netherlands and Belgium) belong to the first country group, while CEE countries(Poland, Czech Republic and—to a lesser extent—Hungary) to the second one.

Comparing the two columns in Table 2, we can say that the Czech Republic and Poland in both absolute and relative terms and Hungary in relative terms are among the top ten most favoured destinations for eWork.

From among the seven generic business functions, we selected the "software development and support" because of its high value added content and because of its crucial role in the globalisation process. In this respect, the following three country groups should be distinguished: (1) the 3 CEE

countries: Poland, the Czech Republic and Hungary; (2) the capital regions or highly developed urban zones with strong business sectors, like Brussels, London, Lombardy, Northern-Westphalia, and the Madrid Region; and (3) the so-called “secondary regions”, which are also developed and represent attractive top locations for software development and maintenance (e.g. Emilia-Romagna in Italy, North-East Spain, Southern Spain and the Bremen region in Germany). Table 3 displays the top ten locations for the delocalisation of “Software Development and Maintenance”:

**Table 2. Top Ten “Destinations”⁵ for work delocalisation
(absolute and per capita)**

Absolute	Per capita
Poland	Region Brussels (Belgium)
Czech Republic	Bremen (Germany)
London (UK)	Noord-Nederland (The Netherlands)
Baden-Württemberg (Germany)	Czech Republic
Nordrhein-Westfalen (Germany)	Poland
Noreste (Spain)	Hamburg (Germany)
Comunidad de Madrid (Spain)	London (UK)
Lombardia (Italy)	Berlin (Germany)
Hungary	Luxemburg
Bayern (Germany)	Sur (Spain)

Source: Huws and O'Reagan 2001: 52.

⁵In the EMERGENCE 18-country employers' survey, we made distinction between source and destination countries. By source country we meant a country from which a business function was relocated into another region, country or continent. The category of destination country indicates the country to which the above mentioned business functions were relocated (these are the so-called “host-countries”).

Table 3. Top Ten Destinations for Software Development and Support (in absolute and relative terms)

Ranking based on absolute terms	Ranking based on relative terms (per capita)
Poland	Region Brussels (Belgium)
Czech Republic	Bremen (Germany)
Noreste (Spain)	Noord-Nederland (The Netherlands)
Nordrhein-Westfalen (Germany)	Sur (Spain)
London	Poland
Madrid	Czech Republic
Lombardia	Noreste (Spain)
Hungary	London
USA	North-Eastern Italy
North-Eastern Italy	Emilia-Romagna

Source: EMERGENCE European Employer Survey, 2000, (IES/NOP). Weighted figures, establishments with >50 employees in EU-15 plus 3 candidate countries. (Huws and O'Reagan 2001: 62.)

Evaluating the motives or incentives of delocalisation of software development activities, the results were rather surprising. There is a widely held opinion that the low cost of IT experts is a main source of attractiveness of former socialist countries. In contrast, according to our research results motive of "low cost" comes only second after "technical expertise"⁶ while "good reputation" and "proximity to the customers" are ranked 3-4th place on the list (the detailed results for Czech Republic and Poland can be found in

⁶ In relation to labour costs of IT experts, it is worth quoting a representative of Association of Hungarian IT Entrepreneurs: "Hungarian software specialists are not more expensive compared to the Indian IT experts. One hour wage cost in Hungary is 25 USD which is identical to the Indian one. In comparison, the hour wage rate in the USA is 100-150 USD in this sector." (Kováts p.11-15.)

Table 3). These results indicate that these countries made significant efforts to become attractive for eWork delocalisation not only for cost-efficient but knowledge-efficient reasons as well. However, it would be misleading if we did not take account the fact that in selecting these countries as destination location for various business functions low labour cost is still playing an important role⁷, but it is certainly not the only reason why companies are willing to outsource some of their activities.

Another important characteristic of work delocalisation is the fact that it affects differently the medium-sized and the large firms. Unfortunately, due to financial reasons we could not include the important segment of micro and small firms into the survey in spite of the fact that without exception these firms dominate the organisational morphology of the national economies surveyed in this project. However, there is a visible gap between medium-sized and large firms concerning their capacity to attract delocalised business functions in the form of eWork in favour of the larger sized firms.

Furthermore, the size category of the firm matters more in the CEE region than in the EU-15 countries. These differences are an important source of the unequal participation of business organisations in the emerging new development path in the CEE region. In order to better understand both inhibitors and facilitators of the SME involvement into the creative cycle of the development process, we have to focus on the patterns of manpower and knowledge use. Using the example of telework and networking activity, the next section briefly outlines the interaction between organisational innovations and the model of work organisation.

⁷In the other top destination regions belonging to different EU-15 countries, the motive of "low cost" is ranked as follows: Brussels region: 5.; Bremen region: 3.; Nord-Nederland region: 4.; Hamburg region: 4.; London region: 4.; Berlin region: 6.; Luxembourg: not ranked; Sur region: 5.

Table 4: Reasons for choice of CEE countries to delocalise business services

Rank	Czech Republic	Poland
1	Technical expertise	Technical expertise
2	Low cost	Good reputation
3	Near to customers	Near to customers
4	Good reputation	Low cost
5	Longstanding relationship	Longstanding relationship
6	Reliability/Quality	Face-to-face meetings are also possible
7	Near to other parts of the company	Reliability/Quality
8	Face-to-face meetings are also possible	Near to other parts of the company
9	Happened to know them	Good marketing strategy
10	Good marketing strategy	Merger/takeover
11	Merger/takeover	Happened to know them
12	Cultural understanding	Cultural understanding

Source: Huws and O'Regan, 2001: 53.

D. The Decisive Role of Organisational Innovation in the SME Sector: The Case of Telework Diffusion and Network Development

After reviewing the global demand and supply side of eWork, in this section we intend to identify and assess the diffusion of organisational innovations at the level of the labour process. Unfortunately, there is a lack of systematic research on the changes of labour process of companies, especially in the post-socialist economies in the CEE region. Labour process serves as a kind of "black box": we don't know what really happens inside the companies, what components of work organisation shape the capacity of firms to use, create and renew knowledge of their employees as well as to

facilitate organisational and technological innovations. What kind of organisational arrangements favour or inhibit the development of these capacities? In the followings without discussing this issue in details we intend to present some examples to illustrate the necessity and importance of labour process analysis.

Intensified global competition and the fast changing environment force companies to develop their work organisation and to introduce new forms of work organisation. This is especially true in the emerging Knowledge Economy where learning capacity of firms becomes a crucial element of the competitiveness. Nielsen and Lundvall argue that a distinction should be made between the wider term of “knowledge-based economy” and the term “learning economy”: “The learning economy concept signals that the most important change is not the more intensive use of knowledge in the economy but rather that knowledge becomes obsolete more rapidly than before; therefore it is imperative that firms engage in organizational learning and that workers constantly attain new competencies.”⁸

The authors conclude that facing these challenges firms have to reshape their work organisation and ensure a higher level of functional flexibility and networking capacity giving birth to new organisational forms. This is not a new phenomenon, in the well-known Fordist type automobile jobs an increasing proportion of the former production support tasks(e.g. quality supervision) are carried out by assembly line workers themselves. According to the findings of a cross-country comparative research carried out in the electricity and electronic industry in 1985, 1995 and 2000 the participation of blue collar workers has become more significant in the

⁸Nielsen and Lundvall, 2003, p.3. downloadable from the DRUID website:
http://www.druid.dk/uploads/tx_picturedb/wp03-07.pdf(Date visited: 21/04/2007)

labour process when their activities was enlarged by quality control. (Makó and Nemes 2002) The most radical changes indicating increasingly flexible utilisation of manpower were noticed in the case of the Hungarian and Slovenian assembly line workers in the three surveyed CEE countries.

Table 5. Participation of blue-collar workers in quality management

Country	Share of tasks of quality control carried out by blue-collar workers (%)		
	1985	1990	2000
Poland	6.9	4.5	8.0
Hungary	5.3	25.1	29.0
Slovenia	7.3	17.9	21.0

Source: Makó, Cs. and Nemes, F., 2002

As we argued earlier, there is a visible gap between SMEs and larger firms concerning their innovation capacity. It is of crucial importance that SMEs could be integrated into the creative cycle of development by – among others – implementing innovative organisational practices. In another European research project,⁹ the international research consortium examined the diffusion of telework in the SME sector and its relationship with other characteristics of work organisation. Telework is a special form of eWork, defined in the following way: “Telework is a form of organising and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be

⁹ E-Society Gap Assessment Project(eGAP) was financed by the EU 5th Framework Project. The research covered five European regions, namely: Tampere(Finland), Rhône-Alpes(France), Central Transdanubia(Hungary), Emilia Romagna(Italy) and Greater West London Wedge(United Kingdom). For further information, see: www.egap-eu.com(Last Visited: 1ST April, 2007)

performed at the employers' premises, is carried out away from those premises on a regular basis."¹⁰

The network type cooperation represents another form of organisational innovation, through extending boundaries of the firms and giving access to external knowledge pools and other resources. In the last decade, network type cooperation (e.g. project based firms, strategic partnerships, etc.) became a popular research topic enriching the literature of both sociology of organisations and management sciences. In this paper, there has no space to give a review of this literature, we only intend to mention one important aspect, i.e. the intensity of network relations. One of the most common attempt to classify inter-firm or inter-personal networks is the so-called "weak ties" versus "strong ties" approach. The question is whether a large number but loose ties or a few number but more intensive relationships are more efficient. Some authors stress the importance of strong ties in network formation. According to them, strong ties are strengthening the social capital and the economic performance of the firms, while weak ties have a reverse effect. Some recent and most balanced analyses call attention to the limited interpreting value of such dichotomies as "weak versus strong" ties, and they suggest that the value of strong or weak ties depends on the aim we want to use for. For example, if the aim is to collect as much information as possible

¹⁰In the Framework Agreement on Telework, signed on 16th July 2002 by the main European social partners as UNICE(Union of Industrial and Employers' Confederation of Europe, the actual name of this organisation is Business Europe), UEAPME (European Association of Craft Small and Medium-sized Enterprises), ETUC(European Trade Union Confederation) and CEEP(European Centre of Enterprises with Public Participation and of Enterprises of General Economic Interest), we find the following definition: "Telework is a form of organising and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employers' premises, is carried out away from those premises on a regular basis."

weak ties are more valuable. On the other hand, in the case of joint product or service development, intensive or dense network relations are more useful.

Table 6. Production Paradigm Used in the Analysis of the Distribution of Telework

Type of Supervision	Responsibility in Work	
	Limited	Extended
Direct/closed	Fordist model	Transitional or neo-Fordist
Indirect (via teamwork)	Transitional or neo-Fordist	Flexible or post-Fordist

Source: Makó, Cs., et al., 2004: 33

Now, we turn our attention to the interactions between various production paradigms, the diffusion of telework and networking. Analysing empirical data collected from the survey of more than 1700 small and medium- size firms in five European regions, we classified them according to the pattern of supervision(direct vs. indirect) and to the autonomy of employees in work. Direct or closed supervision characterised the Italian (73%), Hungarian(72%) and the French(53%) SMEs, while in the Finnish and British firms indirect managerial control was practised in the form of “teamwork”. Similarly, greater autonomy in work was identified in the firms operating in the Tampere and Greater West London Wedge regions then in the other three regions(Emilia Romagna, Central Transdanubia and Rhône–Alpes) where employees had rather limited autonomy in their work. Combining the dimensions of “supervision” and “responsibility in work”, we may construct the following types of production paradigm(models of work organisations)¹¹(see Table 7).

¹¹In developing production paradigms, beside the well-known Fordism, we made a distinction between Neo- and Post-Fordist pattern of work organisation. In the first

Table 7. Production Paradigms in the eGap Regions Surveyed

Regions	Share of firms using the following production paradigm (%)		
	Fordist	neo-Fordist (Transitional)	post-Fordist ("Flexible")
Emilia Romagna (Telework: 17.6%)*	65	25	10
Central Transdanubia** (Telework: 29.1 %)	65	24	11
Greater West London Wedge (Telework: 45.9%)	34	31	35
Rhône-Alpes (Telework: 68.7%)	43	28	29
Tampere (Telework: 52.1%)	23	34	43

Source: Makó, Cs. et al., 2004a: 34

*The share of telework indicates the opportunity of telework, which was measured by the simultaneous presence of distance work and ICT use in this work. The indicators are based on the calculation of Roland Keszi, used in his Ph.D. Dissertation on Telework. (October 2004). The average rate of telework concerning the five regions participating in the "e-Society GAP Assessment Project(E-Gap Project) – EU 5th Framework,(2002–2004) – EU-IST-2001-35179, was 39.7%.

**In this relation, it is worth noting that the latest European Working Conditions Survey(2001) supported our results that employees in the CEE countries have considerably less control over work and organisation of tasks or over working time than in the EU-15 countries. On the other hand, support from colleagues is more readily available in the CEE countries than their EU-15 counterparts. SUMMARY of Working Conditions in the Acceding and Candidate Countries, 2003, Dublin: European Foundation for the Improvement of Living and Working Conditions, www.eurofound.eu.int, p. 4.

Using the categories of productions paradigms, we can say that the highest rate of telework is typical in regions where the SMEs made use of the post-Fordist(flexible) or neo-Fordist(transitional) production paradigm. A

case, changes in the work does not modify radically the content of work and the degree of autonomy remained limited. In the second case, the work is characterised by high involvement of employees' in design, organisation and supervision of work(see in details: Makó, Cs, 2005: 111-123).

low distribution rate of telework was found in the firms using Fordist type working arrangement. Comparing the five regions surveyed, we can say that the Fordist and neo-Fordist type work organisation is dominant in the SMEs operating in the Emilia Romagna(90%) and the Central Transdanubian(89%) regions. Post-Fordist work organisation used by SMEs is most frequent in the Tampere region(43%), followed by firms operating in the Greater West London Wedge region (35%). As concerns SMEs in the Rhône-Alpes region, it has an intermediary position between the two groups of regions mentioned earlier. Table 8 identifies the distribution of production paradigms in SMEs by the five regions investigated in the eGap project.

Concerning the relation between the share of telework and the dominant production paradigm, we may stress the following: the highest rate of telework in SMEs was found in in the regions where the “neo-Fordist” or “post-Fordist” work organisation was dominant, i.e. in the regions of Tampere and the Greater West London Wedge. The lowest rates of telework were identified in such regions as Central Transdanubia and Emilia Romagna where in the labour process Fordist type work organization is dominant and the share of Post-Fordist work organization is residual.

In our interpretation, telework is not only a new individual form of work based on the use of ICT, but it also represents an organisational innovation. It is worth mentioning here that the differences in Internet use among the SMEs investigated in the eGAP project were visibly smaller than the differences in their employed production paradigms.¹²

¹²In every ten firms, at least seven or nine firms are using Internet and we found the same pattern as concerning e-communication(e-mail). In contrast, in the case of production paradigms, on one extreme of the scale were located the firms from Tampere and Greater London Wedge regions, where in ten more than every four and three applied flexible(Post-Fordist) production paradigm. Emilia-Romagna and Central Transdanubia

Beside the influence of production paradigms on the diffusion of telework, patterns of network activity of the firms have a visible impact with the implementation of organisational innovations. The empirical results of the eGAP project are supporting our introductory remarks on the various types and functions of networking (i.e. the role of weak versus strong ties). It is interesting to note that the Hungarian firms surveyed in the eGAP project had the most intensive individual participation in networking activities—two thirds of them co-operate with more than 10 companies—while project-type work organisation was almost non-existent among them. Contrary to Hungarian experiences, in the Finnish and British regions, companies tend to have less numerous, but more intensive cooperation. In the case of these companies, project-type work was deeply integrated in the everyday working experiences of the SMEs.

Table 8. Share of companies introducing project-type cooperation, 2002

	Yes	No
Tampere (Finland)	79	21
Greater West London (UK)	78	22
Rhône-Alpes (France)	58	42
Emilia-Romagna (Italy)	71	29
Central Transdanubia (Hungary)	56	44

Source: Makó, Cs. et al., 2004a

Marginal rates of networking activity of firms can be found in the **Appendix 1**.

E. Some Concluding Remarks

To take off on the new development path for the post-socialist economies of the CEE region requires a double shift. Firstly, the importance of the knowledge-seeking motives of the FDI is increasing in comparison to the cost-efficiency seeking motives of the early 1990s. Secondly, the economic success of the new cycle of the transformation process presupposes a more intensive participation of the SMEs in the learning economy. Without speeding up the involvement of the SMEs in the emerging new economy, the outcomes of the Hungarian modernisation process remain not only asymmetric but fragile too.

Using the example of the delocalisation of generic business functions, our analysis highlighted that the attractiveness of the CEE region is limited mainly to the sector of medium-sized and large enterprises. However, the overwhelming majority of firms belong to the category of micro- and small firms. This sector has a rather weak position in the emerging knowledge economy. The "size category" of firms matters more in the post-socialist economies than in the EU-15 countries. Similarly, the diffusion of organisational innovations (e.g. telework, networking, etc.) is significantly weaker in the micro, small and even in the medium-sized firms than in the large ones.

Contrary to the public opinion, the firms belonging to the SME sector are equipped with the necessary ICT infrastructure in the CEE region too. It is not the availability of the technology which inhibits the participation of these firms in the cycle of the development but the lack of change in the production paradigm. In other words this means that learning or post-fordist work organisations, project-type network cooperation and other tools of flexible knowledge and manpower use are rather underdeveloped.

To overcome these asymmetries between large and small firms' involvement in the new economy in the CEE region, important policy re-orientation is needed. For example, beside the traditional individual firm-centred economic policy, a growing attention has to be paid to network-generating(cluster-focused) support schemes. Unfortunately, in the post-socialist economies of the CEE region, network development initiatives or even "network-awareness" among the social and economic actors are almost missing.

Appendix 1: Number of Inter-Firm Cooperation, 2002

	More than 10	5-10	1-5	No cooperation
	Percentage			
Tampere (Finland)	29	8	37	26
Greater West London (UK)	8	5	26	61
Rhône-Alpes (France)	11	2	26	61
Emilia-Romagna (Italy)	13	4	19	64
Central Transdanubia (Hungary)	66	9	13	12

Source: Makó, Cs., et al., 2004a.

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