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OUTSOURCING AND OFFSHORING IN REGIONAL CONTEXT

February 2006

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An International Study conducted by the

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Document Control

Description:	Final Version
Date:	24/02/2006
Filename	Outsourcing and Offshoring in Regional Context
Classification This document is:	☒ Public ☐ Limited to internal use by the undersigned parties ☐ Other (specify)

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Executive Summary

This study lays out the findings of an international study on leading practices in outsourcing and offshoring in the European Union (EU) in order to assist Umbria Innovazione better target its intervention in the restructuring of the clustered small- and medium size enterprises (SMEs) that structure the regional economy of the region of Umbria.

The small companies that both compete and cooperate with each other in regional clusters across the EU have for some time been held as an example to the rest of the world. Their flexibility has usually been contrasted with slow-moving manufacturers that depend on mass production who suffered in the recession of the early 1990s. In mainstream political formations and among some prominent academics these clusters have been presented as examples to imitate and transplant across the EU. Reformers on the left have presented them as an example of how SMEs employing highly-skilled craft workers can compete effectively with old-fashioned big business.

Yet the strengths of yesterday might be becoming the liabilities of tomorrow. Several EU regional clusters, especially those associated with process of innovation in product, service and production processes, are facing a crisis related to the high euro and competition from low-wage countries. SMEs and the regional clusters in which they operate across the EU struggle to compete against regional production centers in Eastern Europe, countries of the former Soviet Union, China and India.

One of the major problems that regional clusters in the EU face is that of being rooted in craft industries rather than value-added services such as design and marketing. In the days of lower competition it sufficed to outsource such services from established specialized agencies. But now they must compete with rivals that focus their efforts on services instead of manufacturing.

Global outsourcing and offshoring, in this process, have emerged as key vectors in the restructuring of SMEs and the clusters in which they operate. These practices have an essential role to play in how regional businesses are restructured and how they develop both as individual business entities and as parts of wider regional economic strategies of economic development. Umbria Innovazione has recognized the strategic significance of these practices. As a result it has commissioned the European Institute of Interdisciplinary Research (EIIR) to conduct the present study on leading international models and practices in the field of outsourcing and offshoring.

The study presents the findings of international research in leading practices of outsourcing and offshoring in the EU. It identifies examples of best practice and successful approaches to the development and evolution of sub-supply chains. It covers the following topics:

- Understanding the benefits of outsourcing and offshoring;
- Organizational forms of efficient networking of enterprises;
- Management models of successful outsourcing and offshoring;
- Assessing national and international network offshoring connections;
- Designing and delivering outsourcing and offshoring services;

Contents

1. Introduction

The small companies that both compete and cooperate with each other in regional clusters across the EU have for some time been held as an example to the rest of the world. Their flexibility has usually been contrasted with slow-moving manufacturers that depend on mass production who suffered in the recession of the early 1990s. In mainstream political formations and among some prominent academics these clusters have been presented as examples to imitate and transplant across the EU. Reformers on the left have presented them as an example of how small and SMEs employing highly-skilled craft workers can compete effectively with old-fashioned big business.

Yet research the strengths of yesterday might be becoming the liabilities of tomorrow. Several EU regional clusters, especially those usually associated with process of innovation in product, service and production processes, are facing a crisis related to the high euro and competition from low-wage countries. Companies and the regional clusters in which they operate across the EU, in sectors ranging from textiles, footwear, leather goods, and software development among others, struggle to compete against regional production centers in Eastern Europe, countries of the former Soviet Union, China and India.

The problem goes deeper than the immediate effects of an expensive currency and labor costs. Regional clusters in the EU are showing their age as a way to organize business in a maturing and changing global economy. Several EU regions have grown increasingly conservative and inward-looking, focused more on finding outlets for the goods or services they have traditionally produced on a regional basis than designing and marketing innovative products or services on a global basis.

During the era of national currency devaluations and trade barriers, competition from more efficient and cost-effective locations could be relatively restrained. Today the regional clusters of the EU are exposed to global competitive forces. As a result many of them have to adjust. Many industrial companies outsource some production to eastern European countries such as Romania and Slovakia, and globally to such countries as China. Some of the leading footwear companies which make all their shoes in the famed industrial clusters of Italy, for instance, may be soon be the exception as they are shifting production of some cheaper products to locations like Ukraine or China.

Regional clusters themselves are taking similar steps to those taken by the companies operating in them. They are beginning to set up clusters of companies in which they are competitive in industrial zones which are more competitive and cost-effective outside the EU. However, regional clusters that have integrated production process lines that handle the whole production process find it harder to shed local jobs and craft skills in favor of production abroad than bigger manufacturing units which have less at stake.

SMEs that mainly interact with their counterparts in a regional cluster may also lack the expertise to manage a global supply network, which normally functions as a comparative advantage for big companies. The implication is that the site of the firm can become a constraint when the supply chain is complex and global.

One of the major problems that regional clusters in the EU face is that of being rooted in craft industries rather than value-added services such as design and marketing. In the days of lower competition it sufficed to outsource such services from established specialized agencies. But now they must compete with rivals that focus their efforts on services instead of manufacturing.

As a result, regional clusters are falling behind in innovation. Some major clusters specializing in relatively upper market fashion design are facing stiff competition not only from Chinese operations but also from a trend toward casual clothes. So the traditional strengths of EU regional industrial districts have become a weakness as well as a strength. For instance, though Italian factories remain pre-eminent in the making of the finest textiles, the companies that own them and operate them can become trapped in craft tradition. *The challenge is how to move their business focus to less tangible things like consumer research, cutting-edge design, expert marketing and skill in global sourcing*.

Global outsourcing and offshoring have emerged as key vectors in the restructuring of SMEs and the clusters in which they operate. These practices have an essential role to play in how regional businesses are restructured and how they develop both as individual business entities and as parts of wider regional economic strategies of economic development.

The study presents the findings of international research in leading practices of outsourcing and offshoring in the EU. It identifies examples of best practice and successful approaches to the development and evolution of sub-supply chains. It covers the following topics:

- Understanding the benefits of outsourcing and offshoring;
- Organizational forms of efficient networking of enterprises;
- Management models of successful outsourcing and offshoring;
- Assessing national and international network offshoring connections;
- Designing and delivering outsourcing and offshoring services;

2. Defining outsourcing and offshoring

In the US the current debate on outsourcing and offshoring seems almost entirely focused on the loss to India of US software programming jobs. However, in the EU the discussions of offshoring, outsourcing, delocalization, and deindustrialization are significantly wider in scope and effectively concern the entire economy.[1] In some respects, this broader current European debate reflects a rolling into one debate of several debates that have raged across the EU in the last couple of decades about global production platforms for re-exports of goods and services and about foreign trade (deficits) in general. This study therefore adopts a broad definition, which warrants a brief clarification of terms."

Outsourcing refers to *the purchasing of intermediate inputs by companies (or governments) at arm's length*. Raw material inputs are excluded. For instance, purchases of raw steel by

[1] M. Camdessus, "Le sursaut, vers une nouvelle croissance pour la France", September 2004; M. Fontagné et J. H. Lorenzi, "Désindistrialisations et Délocalisations", February 2005.

Fiat would not be outsourcing, but if Fiat decided to purchase the doors for its cars from a supplier, rather than manufacture them itself, it would have outsourced its production of car doors. Similarly, if Credit Lyonnais decided to hire a cleaning company to clean its offices, rather than have cleaners on its own payroll, it would have outsourced its cleaning services.

It is important to realize that outsourcing is not new. It has a long history which is related to industrial restructuring. It is effectively synonymous with the distribution of labor and with companies remaining competitive and cost-conscious while specializing in what they do best. What is new, however, is that information and communication technology (ICT) in recent years has made outsourcing of whole new types of services possible. ICT and inexpensive communication today enable companies to outsource most things that can be reproduced/conducted in digital form, such as ICT support, back office (payroll administration and accounting), call-centers, software programming, and some R&D functions. Similarly, ICT has enabled additional outsourcing in goods manufacturing, as intermediate inputs can now be seamlessly sourced from multiple suppliers.

Offshoring refers to *the acquisition of intermediate inputs by companies (or governments) from locations outside the consuming country*. It is the crossing of international borders that distinguishes it from outsourcing in general. Offshoring may take the form of a transfer of particular tasks within an organization to a foreign location. For instance, Lufthansa opening a new accounting department in Poland for company use is offshoring but not outsourcing. An important distinction must be made between offshoring and foreign direct investment (FDI). Not all FDI is offshoring. If ST Microelectronics decides to build a factory in China to serve the Chinese market, then it is FDI in China but not necessarily offshoring. The distinction is blurred if a company moves an entire domestic production facility abroad and then imports the produced goods (or services) back into its home country. For instance, Benetton moves its Italian shirt production to China and imports Chinese-made Benetton shirts back to Italy.

Offshoring may also occur as purchases of intermediate inputs at arm's length from foreign suppliers, in which case one may describe it as offshore outsourcing. When AXA uses the Indian company Wipro for IT application maintenance, or BMW switches to buying car parts from a Czech supplier for use in Bavaria, it is offshore outsourcing. Again, it must be stressed that this is not an entirely new phenomenon but that the rapid development in ICT and the accompanying drop in the cost of communication have enabled many new inputs of particularly services to be traded across borders—if it can be outsourced, then it can generally also be offshored. Today such tasks as technical drawing in architecture, radiologist readings of X-rays, or certain legal services may be sent overseas. [2]

[2] Jacob Funk Kirkegaard, "Outsourcing and Off shoring: Pushing the European Model Over the Hill, Rather Than Off the Cliff!", *Working Paper Series*, Institute of International Economics, Mach 2005.

3. Outsourcing and offshoring in perspective

What are the drivers of outsourcing and offshoring? The business practices of outsourcing and offshoring focus on the relocation of labor-intensive service industry functions to locations remote to the business center, such as Ukraine, Ireland or India. It has been enabled by two main changes in the business environment. First, the improvement in international telecommunications capacity, and the concomitant step-change reduction in global telecommunications costs, is fundamental to the economics of outsourcing and offshoring. Second and just as important, over the past two decades the PC has enabled the computerization and digitization of most business services. As a result of these two changes information can now be transmitted over long distances at very low cost and with little loss of quality. These changes make organizational boundaries and national borders much less important in deciding the location of service functions.

What are the economic benefits of outsourcing and offshoring? As is commonly realized, the prime motivation for outsourcing and offshoring is that it reduces labor costs. There are very large differences in the wages paid for equivalent skills between the EU and developing countries such as Eastern European countries and India or China. For example, the equivalent of a software developer who might cost €50 an hour in the EU costs only €5 an hour in India. Similarly, a data entry agent who might cost €20 an hour in the EU costs only €2 an hour in India.

However, there is also a second reason why offshoring brings economic benefits. Whereas in the EU many of the offshored jobs are seen as relatively undesirable or of low prestige, in the countries they are offshored to they are often considered desirable and attractive. As a result, workers in low-wage countries often have higher motivation and outperform their counterparts in developed countries in terms of performance measures such as the number of transactions per agent, or the number of errors per transaction.

Is It a Win-Win Game? The differential in wages alone exaggerates the potential economic benefits. *Though the wage-saving is substantial, additional costs are incurred in terms of telecommunications and the management of the offshore facility*. Nevertheless, once these costs are taken into account, there is at least 45 to 55 percent saving in the cost base. Reengineering the process design can further increase this potential saving to 65 to 70 percent of initial costs. A simple example is changing the sequence for processing a customer service call, which would result in a penalty on labor productivity but a substantial improvement in capital productivity and thus a net impact of a 50-percent increase in profits.

In addition to significant cost savings, *companies are also using outsourcing and offshoring as an opportunity to drive revenue growth*. For example, by leveraging cheap labor, airlines are now able to chase delinquent accounts receivables that they would earlier be forced to ignore. Similarly, computer manufacturers are increasing market penetration by offering customers services they could not afford to offer earlier. As a result, by offshoring, many companies are creating more value from increased revenues than from reduced costs. [3]

[3] "Offshoring: Is it a Win-Win Game?", McKinsey Global Institute, August 2003.

What services can be offshored? There is potential to offshore a very wide range of functions. *The criteria for successful offshoring include the requirement that the function can either be digitized or handled by telephone, and that appropriate skills are available or easily developed at the offshoring center*. Among the functions to be offshored first are back-end processing, call centers, and accounting. Higher-value work has since been added to this list, particularly in areas where there is an offshore abundance of what are otherwise scarce skills. The prime example of this is software maintenance and development, which continues to attract increased investment in offshore facilities. Other high-end offshored functions include automotive and aerospace component design (CAD/CAM), and pharmaceuticals research. The range of functions that have been offshored successfully is substantial and widening as appropriate infrastructures and support systems are put into place.

What is the impact on businesses and the economy? Offshoring creates wealth for EU companies and consumers and therefore for the EU as a whole: that is why companies choose to follow this course. Offshoring is just one more example of the innovation that keeps companies at the leading edge of competitiveness across multiple sectors. The more companies innovate, the more competitive they become and the more benefits are passed on to consumers. Moreover, while still receiving services that employees were previously engaged in, the economy could now generate additional output (and thus income) when these workers take new jobs. Thus, offshoring not only captures every bit of economic value that exists in the EU economy prior to the decision to offshore, but it also creates a net additional value for the EU economy that did not exist before. The EU will capture economic value through several different channels: reduced costs, increased revenues, repatriated earnings, and the redeployment of additional labor.

Reduced costs. Cost savings represent the largest form of economic value capture. According to some calculations conducted in the US, for instance, for every dollar of spend offshored, 58 cents are captured as net cost reduction to businesses even as they often receive an identical (or better) level of service. A more competitive cost position in turn leads to higher profitability and increased valuations that help keep companies highly competitive in the world economy. Initially, the savings will flow to investors, or they will be invested in innovations or new business ventures. Eventually, as offshoring becomes more prevalent, competition will yield the savings to consumers. In either case, offshoring will contribute significantly to increasing national earnings.

New revenues. Research shows that in the US for every dollar of spend offshored, offshore services providers buy an additional five cents worth of goods and services from the U.S. economy, thereby creating exports and extra revenue for the U.S. economy. Providers in low-wage countries require U.S. computers, telecommunications equipment, other hardware and software. In addition, they also procure legal, financial, and marketing services from the U.S. Already imports from the U.S. to India have grown to $3.8 billion today from less than $2.5 billion in 1990.

Repatriated earnings. Several providers serving the EU market are incorporated in the EU. These companies repatriate their earnings back to the EU., which amounts to an additional earnings out of every euro of spend offshored.

Redeployed labor. As low value-added service is sourced from economic zones outside of the EU, workers previously engaged in providing those services are freed up to take other jobs. This appears a reasonable assumption given the empirical evidence that services workers find employment more quickly than do manufacturing workers, and job-displacement during the last two decades – when jobs offshored were primarily in manufacturing – was at least as high as the projected job displacement in services.

If offshoring is potentially so easy, why has it been so hard? Apart from the political concerns regarding employment loss research and practice show that there are important barriers that deter companies from outsourcing and offshoring. These can be grouped as follows in order of importance:

1. *Unsuitable business processes* are the most important operational issue inhibiting companies from outsourcing. Several companies have business processes that are too convoluted to allow easy separation into distinct groups of activities, some of which can then be outsourced. This issue can affect companies in sectors with high potential to outsource labor remotely. Several packaged software companies for instance, find their software development processes unsuited to parallel execution at multiple R&D locations around the world. Similarly, many great players in health-care still rely on paper-based processes that cannot be move far from core operations. While they could eliminate such of these paper-based processes, or digitize them with electronic scanning, the cost and risks of doing so are still a deterrent.

2. *Management attitudes and strategies* are another important determinant of whether a company goes ahead with outsourcing and offshoring. Top management commitment to such practices has a strong impact on whether a company will pursue them, even in cases where it would clearly be a logical and effective solution. In several sectors managers are unwilling to become involved in outsourcing. Some are unprepared to deal with the challenges it presents or are uninformed about the opportunities. Sometimes top managers are also concerned that if too many functions and jobs go abroad, then they will have to follow. Mindsets like these are particularly prevalent among local and national companies whose managers have little or no experience leading operations abroad. As a consequence they are unlikely to prioritize outsourcing ahead of alternative sources of cost cutting.

3. Finally, there are *structural factors* that inhibit companies from outsourcing. For example, many companies find that their offshorable activities are too small in scale to warrant the risks of locating them remotely – smaller retailers and SMEs in particular face this barrier. Until good intermediaries can achieve scale benefits by serving multiple SMEs, enterprises like these will not pursue offshoring opportunities. [4]

[4] McKinsey Global Institute, *The Emerging Global Labor Market I – The Demand for Offshore Talent in Services*, June 2005.

4. Organizational forms of efficient networking of enterprises

Overcoming such barriers and reaping the business and economic benefits of outsourcing and offshoring depends on the development of networked or clustered forms of organization that allow SMEs achieve scale benefits. In traditional organizational structures, business units were either within the organization and “densely connected”, or they were outside the organization and not connected at all. Transactions with external suppliers were at arm's length. By contrast, companies today cohabit with a vast number of joint-ventures and strategic alliances, some more and some less connected. The line between what is inside and what is outside the corporation, once so clear, has become blurred.

Leading modern organizational architectures, by contrast, are increasingly made up of a number of strategically aligned businesses linked closely where there are opportunities to create value by leveraging shared capabilities, but only loosely where the greater value lies in differentiated focus. In other words, close and loose relationships coexist within the same organization.

One of the most contentious of these new relationships is outsourcing - the handing over to others of what were once considered to be core functions of the company. First to be transferred to more efficient providers were companies' manufacturing operations. Firms such as Nike have stretched this idea to such an extent that some of them now make nothing: all Nike's shoes, for instance, are manufactured by subcontractors. Nike employs few people directly. Such companies have become the orchestrators of a brand. Their baton has only limited control over the musicians who play for them, but that does not prevent them from producing great music (or shoes). [5]
1 Limits of the traditional regional networking model: The implementation of cluster organizational development strategies varies considerably from one region to another. In the European best-practice regions examined for this study, there are significant differences as regards the network partners, its organization and the business support services offered.

The model of regional networked organizational structures proposed below results from the analysis and evaluation of the regional clustering strategies. The model highlights first of all best practices that have successfully stimulated the participation of SMEs in networks and enhanced their business performance. Secondly, it highlights common factors underpinning the success of all clusters. There is, however, no perfect model applicable everywhere in the same way. The basic model sketched below will have to be adapted to the specific socioeconomic, political and cultural characteristics of the region in question. In addition, according to the industry sector in question, clusters might be organized in different ways. The present model will therefore have to be adjusted to the requirements of the different industry sectors.

Principles and methods of regional networking: Enterprises expect the network to assist them in accessing new market opportunities and in achieving long-term competitiveness. If the network fails to deliver on these expectations, enterprises are likely to leave. Regional

[5] “Survey: The Company. The new organization”, *The Economist*, January 19, 2006.

networks offer suppliers an adequate framework to respond to increasing industry requirements. Co-operation in regional networks, both vertically and horizontally, helps enterprises to face new challenges, although these have different expectations according to their size, financial position and technological profile. Furthermore, enterprise networks are instrumental in offering business support services and in facilitating enterprises' access to resources such as technology, qualification, internationalization tools, etc. Regional networks are well placed to generate the necessary contacts and to create new relationships.

In the process of establishing a regional organizational network in support of outsourcing and offshoring, three basic issues have to be dealt with:

1. Determine the basic organizational principles in a regional network;
2. Decide on available business support services;
3. Set up a know-how management and communication structure.

Basic organizational principles: The basic organizational principles of a regional network are determined by answering the following questions:

- Which partners are to be involved in the network?
- Which associations, public bodies and institutions are to be integrated?
- Is a co-ordination mechanism required? If yes, who assumes the role of network coordinator?
- Which institutional organs (e.g. advisory committees) ensure the consultation of partners and a balance of interests, in order to reach synergies and added value for the users?
- How shall the network and its services be financed?

Network partners: It is important to integrate the whole production chain in the network, including producers, service industries and technology poles, in order to generate a flow of communication and know-how between them. Competitiveness can only be achieved by means of networking among enterprises and institutions that have different strategic goals such as developing, introducing or applying new technologies.

Enterprises are primarily concerned with the integration of their supply chain partners: suppliers, customers and technology poles. Enterprises are usually of the opinion that associations, chambers of commerce and public sector institutions should not be admitted as key members of the network. However, in order to guarantee the basic functions of a regional network, such as providing access to new markets through outsourcing and offshoring, facilitating technology transfer and strengthening the competitiveness of the regional industry, both enterprises and intermediary organizations should be involved.

The extent of the participation of such organizations must be adapted to the objectives of the network. Associations can act as an important interface with national authorities. Some networks have integrated important institutions in the network's advisory committee, where they acted as multipliers.

As regards public sector involvement, the main question is to which extent a regional network should serve regional economic development objectives. If the network is part of an overall regional development strategy, both politicians and the public administration are responsible for coordinating relevant activities. In this context, political back up of a network is essential. As regards the involvement of large manufacturers (and system suppliers), most SMEs favor their participation in the network, in order to be informed of market developments and requirements.

However, the participation of large manufacturers (who normally have an important role in the decision-making of the network) is not always appropriate. When the representation of the collective interests of the small suppliers vis-à-vis the manufacturers is one of the network objectives, then the network should not include the latter. Enterprises do not like to be in the same network as their competitors, but this might be necessary for strategic purposes. While the wider network should always leave room for competitors, close co-operation projects are the responsibility of individual enterprises. These should therefore decide on whether or not a competitor is to be included in a project. Rather than a closed system, a network is an open process. Network partnership can therefore be extended or restricted in line with new challenges.

5. Management models of successful outsourcing and offshoring

Establishing and maintaining a network supporting outsourcing and offshoring of SMEs engenders substantial costs. During the startup phase of the network, it is necessary to invest in the setting up of the network structures. While this investment does not generate an immediate benefit for enterprises, it may be beneficial for the region on the whole in terms of economic development and employment.

The establishment of a network is in the collective interest, it is equivalent to the provision of a collective good. Consequently, initial expenses for the setting up of a network must be sponsored (at least partially) by a third party representing the collective or public interest (either an association representing the collectivity of the enterprises concerned or the public sector). In all the successful technology networks examined, initial expenses for setting up and running the network were covered by public funds, as enterprises showed little interest in investing in uncertain long-term projects. The need for external resources is crucial in the start-up phase.

In a second stage, once the network is well established, the participating enterprises experience a visible net benefit. In some cases regional networks start with public sponsorship and afterwards public funds are gradually phased out while members are requested to contribute to the financing of network services. Different membership fees are set according to the number of employees and/ or the turnover of the member in question.

The appropriate financial contribution should correspond to the services offered and should be agreed upon by the partners. Only a small minority of the enterprises examined think it is justified to pay for general information services. Given the available sources of information (Internet etc.), enterprises consider information about services, products and partners to be free of charge. However, a large majority of enterprises and technology poles are willing to contribute individually to specific services that are tailored to their individual needs.

A well-established approach for the start-up and management of networks: In most cases, setting-up and running a network is a complex process. This process, which leads through the different stages of a network, can vary according to the following elements:

- Participants in the network;
- Goals of the network;
- Framework conditions the network has to live in;
- Network management.

Nevertheless, the procedure described below has proved to be helpful in the start-up and management of networks.

Step 1: Goal, Potential and Strategy: This informal first step consists of bringing together the key players of the future network. The network begins its existence with an agreement and commitment on common strategy and goals for the network.

Step 2: Starting the Network: Afterwards, the (meanwhile selected) network coordinators should prepare the operative schedule of the network. This should be a professional project management plan including structure of projects, time schedule, budgets, staff demands etc., reflecting the framework conditions in which the network is to be implemented. Equally important is the setting of common rules regarding the role and inter-action of network partners.

Step 3: Implementation of the Network: The main goal here is to set-up an adequate information and communication platform connecting the network management with all its participants and the outside world. The activities run by the network management should fulfill the expectations and demands of the network participants. The organization of high quality events and the provision of high quality services are essential for creating confidence.

Step 4: Management of the Network: The management of the network should focus its activities on the following five areas:

- Information and communication;
- Training
- Innovative projects (e.g. co-operation between several enterprises and experts (RTD-institutions, universities, consultants);
- Internationalisation;
- Marketing and PR.

The network manager has to use highly sophisticated methods of multi-project management to guarantee quality, cost efficiency and timely implementation of all actions and the operation of the whole network.

Step 5: Evaluation of the Network: Regular auditing of network actions and/or the gathering of feedback from network members, are necessary to continuously improve the management of the network. Both tools are necessary to keep the network actions in touch with the developing market, participants and framework conditions.

The time to finalize each step depends on the following:

- Goals of the network;
- Size of the network (number of participants and regional size);
- Framework conditions (size of the network management team, financial resources for network management available);
- Preparation of the network in an informal period, in which the vision of the network has to be taken up by some key persons.

Model for a transnational cluster: The model to establish a transnational network supporting outsourcing and offshoring results from the analysis of European cluster organizations and leading companies. The model presented presupposes the existence of regional technology networks and consists of creating an overall transnational network formed of the interlinked regional networks. In terms of its institutional status, the transnational network is not fully autonomous and independent from the regional technology networks. The services of a transnational cluster result from the services and resources of the regional partner clusters. Therefore, rather than providing new services, existing regional services are to be harmonized and be opened to enterprises of the partner regions.

Transnational networks are developed on gradual and phased approaches. Such a phased approach is outlined below:

Phase 1: Building the network infrastructure: The transnational network starts with contacts at the level of the regional cluster organizations with a view to inter-link different clusters. During this phase, it is necessary to build up trust and mutual relationships between the regional clusters. Organizations that have a direct interest in participating in the transnational network should be involved from the start. Such cluster organizations can profit from the transnational network by gaining a forum for exchange of experiences and benchmarking with comparable European cluster organizations.

Existing regional cluster organizations may have to be upgraded beforehand to a level where they can contribute to the transnational network as an equal partner. Defining certain minimum requirements for membership of a transnational cluster helps to render co-operation mutually beneficial and stimulates enterprise participation. Enterprises will only participate if they think they can use the transnational network to find new business opportunities. A regional network supporting outsourcing and offshoring on a transnational network basis should fulfill the following minimum requirements:

- Reasonable level of continuous activities;
- Permanently available and sufficiently staffed cluster office with access to the regional key institutions and leading companies of the region;
- Critical mass of regional partner enterprises available for match-making;

- Capability to provide detailed information on regional enterprises in order to deal with requests from partners seeking new business opportunities;
- Capability to provide an overview of regional enterprises engaged in international business activities or participating in European programs;
- Detailed knowledge of relevant European funding programs and capability to advise enterprises on their application for such programs.

The definition and characteristics of the services to be provided by the transnational network should be decided upon by all the partners. These transnational services may differ according to the characteristics of the regional clusters. It is also necessary that all participating regional networks agree upon a minimum set of common regulations, standards and procedures. This must take into consideration different inter-regional and inter-cultural differences. While in principle all partners should comply with all the rules, a system whereby some partners may "opt-out" of some rules might be necessary for reasons linked to inter-cultural differences.

The agreed rules should deal with the following:

1. Recognition of the cultural specificities of each partner network and creation of methods to deal with possible conflicts arising from these differences.

2. Regulations on the design, management and moderation of the network:

- Common technical standards concerning the means of communication and data interchange used, e.g. a shared work space on the Internet;
- Common procedures structuring the regular exchange of experiences in the transnational network, e.g. frequency of joint meetings and workshops, who should host them, etc.;

Regulations concerning the moderation of the transnational network, including:

- Which regional network should chair the transnational network and for which time period
- Which procedure to use for the alternation in the presidency of the cluster
- If there should be a permanent head office of the network
- Regulations concerning the financing of activities undertaken at request of a partner network.

3. Common standards as to the service profile of the network:

- Set of common standards concerning the services mutually offered to all partner organizations and enterprises in the network (quantity and quality);
- Services specific to the transnational network, which are better provided through a centralized service rather than by every network separately, for example:

- Maintenance of an Internet-based database service for match-making Promotion of the network and provision of PR material on the activities of the transnational network for the main beneficiaries
- Cluster-marketing (development of a corporate design concept)
- Common procedures as to how to deal with information and/ or cooperation requests (time frame etc.).

4. Common goals concerning the future development of the transnational network, for example:

- Use of the transnational network as a benchmarking platform for different cluster organizations with the aim to define standards for European clusters;
- Design of training programs for SMEs to help them face globalization;
- Development and testing of new methods tailored to transnational cluster management.

5. Common action plan to start up common operations. In addition, every cluster organization should appoint at least one manager responsible for keeping up the international linkage, maintaining contacts with the partner networks and providing support to partner organizations and enterprises. Financing the manager from the scarce resources available to regional networks is often difficult and therefore alternative sources of revenue have to be found (especially for the startup phase). The implementation stage of the transnational network starts after the abovementioned structures have been jointly agreed upon and implemented by the partners of the network.

2.2 Phase 2: Extension of the network to the enterprises: In the second stage, the basic infrastructure of the transnational network is in place. The main emphasis now rests upon the promotion of co-operation between the partner enterprises from the different regional networks. Enterprises will be able to benefit from a wide range of services available from the transnational network. While the partners must agree upon the transnational network's services, these must be important enough so as to render participation attractive for the enterprises.

According to the research conducted for this study, the following services specific to transnational networks are strongly requested by enterprises and are therefore recommended to figure among the key services provided:

- Support in finding co-operation partners in the different European partner regions;
- Provision of enterprise profiles and maintenance of a co-operation partner exchange;
- Contacts with foreign partners through the intermediary services of the partner organizations;
- Information on selected foreign markets;
- Information on technological developments and the availability of technologies in the partner regions;
- Information on European funding programs.

Five Outsourcing Practices That Pay Off

Outsourcing is still more of an art than a science. But it's now part of the corporate toolkit, and it's important to use this tool right. What are the pitfalls to avoid when outsourcing? What are the best practices to follow? These questions are more pressing than ever as outsourcing turns companies inside out.

1 Go Offshore for the Right Reasons: Despite the lure of lower costs and the promise of big gains in efficiency and innovation, it may make sense not to go offshore at all. Can you boost efficiency and competitiveness by shaking up operations or improving technology at home? What's the risk of a damaging backlash from your customers or community? Don't decide to send work offshore simply because your competitors are doing it. And don't outsource a mess! If you have a broken process, shifting it overseas won't fix it.

2 Choose Your Model Carefully: As you develop your strategy, weigh whether you should set up your own subsidiary offshore--known as a "captive" operation--or contract with outside specialists. The appeal of opening your own outfit is that you keep firm control of proprietary technology and processes. One downside of captive units is that they can wind up costing the head office more than it would to hire large outside outsourcers that spread overhead among numerous customers.

3. Get Your People On Board: Keep in mind that employees and middle managers can make your bold move happen--or stop you in your tracks.

4. Be Prepared to Invest Time and Effort: Most companies cite cost-cutting as the main reason for outsourcing. But you won't save as much after the initial year unless you're prepared to invest serious management time and effort. Quality control is also important once the offshore project is up and running, particularly for more complicated tasks.

5 Treat Your Partners As Equals: While working with offshore partners can be scary at first, outsourcing veterans agree that the gains are greater if you regard them as equals.

6. Assessing national and international network offshoring connections

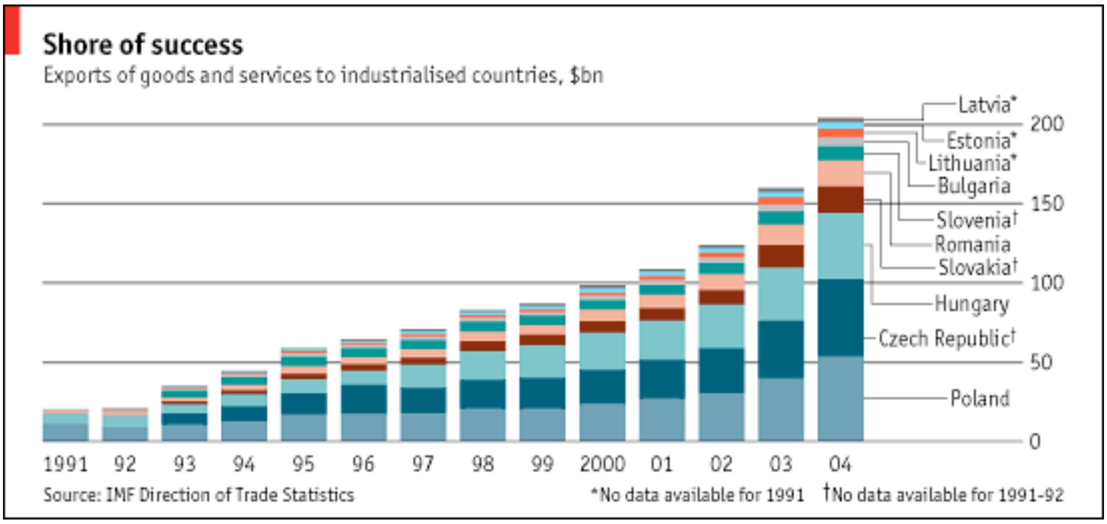
As a result of the accession of the EU's 10 new member states in May 2004, both U.S. and European companies have begun slowly to shift business to the former ex-communist bloc hoping to stave off astronomical costs and increase productivity in a more favorable business climate with lower wages and employees willing to work longer hours. Indeed, Eastern Europe is becoming the main destination of near-sourcing for EU companies.

The region's most obvious advantage, low labor costs, is diminishing, partly because of the even greater price advantage in China and partly because of the upward drift in wages brought by the march of prosperity. That is leading companies to hunt much harder for lasting advantages—based on talent and geography, rather than low wages and plentiful labor. [6]

In the early 1990s even owning a factory in Eastern Europe seemed risky; outsourcing crucial development work would have seemed mad. Bureaucrats were capricious, logistics dreadful, telephone lines bad, business manners eccentric. Doing deals needed strong nerves, iron-clad innards and relentless patience.
Now Eastern Europe is beginning to look different: much more like China, closer geographically and culturally than either, and easier to do business in. Since the collapse of communism, habits, attitudes and values have changed out of all recognition. Economies that were teetering on the verge of hyperinflation only 15 years ago are now preparing to adopt the euro. The EU has imposed a familiar legal environment; even those like Romania and Bulgaria, still outside but hoping to join, are at least heading in the right direction. Politics may be murky, but are rarely worrisome. So western contracts and investment are flooding into Eastern Europe. This is reflected in the growth repatriation flows expressed as exports of goods and services to industrialized countries by the 10 new Member States of the EU (See Exhibit 1)

So far, the biggest fuel for the boom has been wage costs that are typically still half western levels. Tünde Gulyás of Colling, a Hungarian consultancy that helps firms outsource backroom processes, chiefly accounting, reckons that wage costs are 50-60% below western levels in Eastern Europe; in India they are 75% cheaper.

Exhibit 1



[6] Patrick Artus, "Trade integration with emerging countries with substantial resources in skilled labor: What effects are to be expected for European countries?", Paper prepared for the International Conference "The new Frontiers of European Union" – Marrakech, Morocco March 16 and 17, 2005.

In the Czech Republic alone, that has prompted companies such as DHL, Siemens and Lufthansa recently to move big data-processing operations there. “The quality of work is world-class. It matches and sometimes even surpasses the best we do in India,” says Amitabh Chaudhry, chief operating officer of Progeon, a division of India's Infosys IT group that deals with business-process outsourcing. It has opened a centre in the Czech city of Brno, with roughly 100 people working in 13 languages. Mr Chaudhry also highlights the friendly time-zone, good political and regulatory environment, multilingual workers and “cultural affinity”. “We couldn't have handled this from India,” says Ratnesh Mathur, who runs the Brno centre. Infosys has a further office in Prague, supplying around 100 IT support staff to multinational companies there.

That highlights an essential point: cost is only part of the picture. “If I want a huge English-language call-centre, or to design an aircraft engine using tens of thousands of man years, I will go to India,” says Stephen Bullas, whose company eCODE assesses outsourcing locations. “But if I want a small controllable team of telesales people, or back-office workers with a cultural fit to the continental EU or Britain, then it can be much more appropriate to choose an east European country.”

It is the same story in manufacturing, For time-insensitive goods and long production runs, China is still the clear winner for global factory relocation. But when businesses need products finely tailored and delivered quickly and flexibly, then Eastern Europe scores highly.

In the garment industry, for example, foreign companies are doing a booming trade with east European countries in the business of “fast fashion”—ordered and manufactured in speedy response to sales trends. “Fast fashion is a pound or two more per piece from central and Eastern Europe, but customers are prepared to pay,” says Ralph Goodstone, a textile entrepreneur who brokers deals between low-cost suppliers and rich-country customers. The product cycle for garments from China, he explains, is about three months—with four weeks of that time spent at sea. From Eastern Europe, by contrast, it is just four to six weeks, including a day or two for delivery by lorry.

But there are disadvantages too. It is not just steadily rising costs: rising productivity can cushion that, at least in part, and labor may be only a small component of the ultimate price. The biggest shortcoming is a legacy of communism: a shallow talent pool, particularly for middle managers who need to be customer focused and conscious of quality. These were not qualities that the planned economy demanded. Mr Goodstone's most recent deal, with a Latvian supplier, has been hobbled by the gulf between each side's expectations: “They throw up their hands and say, ‘Oh Ralph, we're only a couple of weeks late—our customers round here never worry about that'. When they run into problems they think: ‘Oh we'll sort it out', but you can't—you have to get it right first time.”

It can be taught: Part of the problem is simply size. The top ten east European countries' combined population is around 100m. Vietnam alone is 81m. The answer is to go upmarket with better education. But that's something that every post-communist country is still grappling with. Schools and universities have still to reform Soviet-era pedagogy and curriculums, and are often short of both capacity and teaching talent.

A quick fix is to rely on expats from western countries to bridge the gap. But that is pricey. The new trend in central Europe is for investment by firms from other outsourcing locations in places such as China, India and Turkey. Firms there are eager to gain an edge on their rivals by moving closer to the customer. Turkish entrepreneurs, for example, have bought textile factories in neighboring Romania, installing new management there. That takes advantage of local labor costs, and brings big productivity gains.

Location, location: Stephen Bullas of eCODE says that although no single country is ideal, Poland is "truly open for business". The Czech Republic, though improving rapidly, "can still be too bureaucratic". He recalls recently a firm there that "snatched defeat from the jaws of victory" by refusing to convene the early board meeting needed to close the deal (the contract went to the second-placed Polish company). Hungarians have "great technical ability", he says, but can often be complacent, harking back to the imperial Austro-Hungarian era and "thinking the world owes them a living". Despite impressive IT skills, the Baltic states will win only a niche in the business unless they start co-operating with other countries in the region. [7]

Budapest, the Next Bangalore? New EU Members Join the Outsourcing Race

Countries in central and Eastern Europe are trying to catch up with India as providers of back-office and service staff for multinationals Senior executives from Philips, the Dutch electronics group, gathered recently in the Polish city of Lodz to lay the foundation stone of a multi-storey financial services centre for the group's European operations. When the complex is completed next year more than 500 staff will support more than 100 Philips subsidiaries in 20 countries. But Philips is already receiving frequent enquiries about Lodz from other multinationals planning investments in services centers in central and eastern Europe.

Bogdan Rogala, chief executive of the group's Polish operations, says: "Other companies are visiting us and asking questions. They have ideas for similar projects. This is the beginning of the strategic development of a new sector."

The outsourcing of business services is becoming big business in central and Eastern Europe, especially in the four largest of the European Union's 10 new members - the Czech Republic, Hungary, Poland and Slovakia. During the 1990s multinationals flocked to the region to invest in manufacturing and in services from banking to retailing, often through privatizations. Now, a new element is coming into the mix - investment in service centers designed to carry out work for clients across Europe and beyond.

For West European groups the development of central Europe as an offshore services centre comes not a moment too soon. They have been slow to follow US groups in establishing offshore services centers in Asia. Central Europe offers sites much closer to home. This month Unice, the EU employers' federation, said in a report to the incoming European Commission that Europe must respond to the challenge of globalization, including "the relocation of sophisticated business services." And it says that among the most effective

[7] *The Financial Times*, 21 September 2004.

responses is the full economic integration of the new EU member states. "Enlargement is a golden opportunity to boost competitiveness," says Unice.

The capital investments, ranging from $5m to $25m, are modest in comparison with factories costing $100m and more. But their economic impact will be considerable because thousands of jobs are being created in a wide range of activities including data processing for banks, ticketing for airlines and financial accounting for industrial groups. McKinsey, the management consultancy, estimates that in Poland the number of posts in outsourced business services could rise from about 3,000 earlier this year to 200,000 by 2008. "A wave of global corporate restructuring known as business process offshoring (BPO) is expected to spawn new investment activities," says McKinsey.

Other observers are more cautious, but they agree that in the next five to 10 years more and more multinationals are likely to follow Philips' example. Jean Lemierre, the president of the European Bank for Reconstruction and Development, the region's multilateral bank, says: "A new wave of investment is coming. Many people are going to establish services centers."

Officials in central Europe are pleased to see these new projects in services, not least because foreign direct investment into the EU accession states has slumped in the last two years. According to the EBRD, after hitting a record $20.5bn in 2002, foreign direct investment fell to under $8bn in 2003 and will recover only modestly this year. Big privatisations are mostly completed, while investment in key manufacturing industries and domestic services has also slowed.

Investments in export-oriented services are therefore filling a gap at a difficult time. They are welcome because they usually bring better-paid employment than factories, creating opportunities for graduates who might otherwise be tempted to emigrate. Pawel Jastrzebski, an economy official in the Polish university city of Krakow which has attracted at least five big services centres, says: "All investments are important to us, but we particularly value those that bring good jobs."

The region is far behind the global leaders, India and China, in hosting business process offshoring. However, having entered the market about a decade after India and China, central Europe is catching up, according to a survey of offshore business process locations published this summer by AT Kearney, the management consultancy (see chart below).

Salaries for central European business services workers are about three times higher than in India or China - a considerable disadvantage in a sector where labour is often a big share of the total costs. And English language skills in India and other Asian countries such as Malaysia and the Philippines make these countries popular for US and British groups.

But for many continental European groups, knowledge of languages other than English - including French, German and Spanish - is a key consideration in any decision to transfer services offshore. And such skills in these languages are much easier to find in central and eastern Europe than in Asia. Klaus Furck, vice-president for accounting at Lufthansa, the German airline, says the company last year chose Krakow for its European accounting centre precisely because of the languages on offer. "We even have a person who speaks Finnish," he says.

Cultural affinity also matters, especially where the service centre staff are required to deal with a group's clients. Particularly sensitive fields include collecting debts from customers and handling complaints. David Poole, vice-president for outsourcing at Capgemini, the French-based consultancy which has a services centre in Krakow, says: "These people are Europeans and understand Europe. There is no need for cultural training."

Geographic proximity is also important for some companies, especially those that require frequent contacts between the service workers and their clients in the west. Graham Underwood, chief operating officer at GFT, a UK-based company that has a centre in Budapest and specializes in IT services for investment banks, says being in the same time zone as Germany gives Hungary an advantage over India. "There's no doubt that central and eastern Europe is a good location for dynamic projects, where there are a lot of exchanges of views with the client."

The region's role is highlighted by the approach of those companies that carry out business process outsourcing for others - including Capgemini, Accenture, the international management consultancy, which has a big base in Prague, and International Business Machines of the US which runs a large services centre in Slovakia and others in Poland, and Hungary. For these companies, the central European services centers fit into global networks, which usually also include India and China. For example, Capgemini runs outsourcing bases in Bangalore (India), Guangzhou (China), Toronto (Canada) and Dallas (US) as well as Krakow. Mr Poole explains that projects are often divided between different centers, with simpler jobs such as data processing carried out in China and more complex tasks involving client contact done closer to the customer.

In these networks, the central European centers often serve west European-based clients. But global links are not unusual. For example, one Texan utility company using Capgemini divides its account management functions between Dallas, Krakow and Bangalore.

As companies become more familiar with outsourcing they are likely to entrust more sophisticated operations to offshore centres, whether they are carried out in-house or farmed out to external providers. Mr Furck at Lufthansa says: "We are open to transferring more services. We are always open to change."

But he adds that outsourcing is competing with automation as a way of cutting costs. "In the long run our intention is to have everything automated. Then we will no longer need to transfer service anywhere."

Other companies say that even if basic processes are fully automated, offshore business centres can still perform many functions, especially those involving client contacts. But central European operators must move quickly if they are to capitalise on their advantages. Assuming the region's economies grow faster than those of western Europe, as is predicted, central Europe's cost advantages will decline steadily as wages rise closer to western European levels. The proposed entry of new countries, including Romania and Bulgaria, to the EU later in the decade would increase the competition among low-wage economies in the union. Russia too could emerge as a powerful competitor. Multinational information technology companies already place programming and research contracts as far afield as Novosibirsk in Siberia. Robert Maciejko, who heads the Polish office of the Boston Consulting Group, says: "Now is the time we must market the idea of central Europe as a business services location."

But there are limits to the speed with which west European companies are moving their service centers to the East. Mr Maciejko says that as companies consider transferring more sophisticated functions involving head office executives they become more hesitant. "There's a lot of inertia. Who would put a new headquarters in Germany today [given the costs]? But I do not see many multinationals moving their global headquarters or even their European headquarters to Warsaw."

Most Europeans like to live in their own countries. Since the senior managers of most big European companies are overwhelmingly west Europeans, they generally prefer to work in the west. But as companies expand their operations in the east and more executives spend some of their career in the east, these attitudes may change. Vladimir Kroa, a Prague-based IT researcher for IDC, argues that the city is already becoming a location of choice even for west Europeans. "They like the lifestyle. They really want to live here - it is such a beautiful place," says Mr Kroa, whose own offices look out on a medieval square.
The political climate in Western Europe is also often hostile to transferring jobs to central Europe. In Germany and in France companies that want to cut staff locally and create posts in the foreign countries have faced public and political protests. Nicholas Sarkozy, the French finance minister, has offered to consider financial aid for companies that do not outsource, and has warned the EU's new members to raise corporate tax rates closer to west European levels to reduce competition for investment.

Companies argue that they must cut costs if Europe is to compete with North America and Asia. Investing in low-cost central Europe helps to reduce the overall costs of European operations, including west European facilities. So far, the arguments have centered on manufacturing plants, but the managers of service businesses are also concerned. Adrian von Hammerstein, head of Siemens Business Services, the service division of Siemens, the German engineering group, says: "Jobs outside Germany have grown in recent years but revenue outside Germany has grown exponentially. This growth has helped to secure jobs in Germany and western Europe because it makes us more competitive overall." [8]

7. Designing and delivering outsourcing and offshoring services

Business support services and activities: A successful network supporting outsourcing has to be geared towards bringing the greatest possible benefit to as many partners as possible. In order to fulfill this objective, it is necessary to make business support services available to individual enterprises. Most importantly, it is necessary to inform enterprises about the advantages of networking and about the availability of business support services.

[8] *The Financial Times*, 21 September 2004.

The following services and activities are provided in various regional networks:

1. Information and communication;
2. Support to co-operation projects;
3. Support to training;
4. Support to internationalization;
5. PR and marketing.

1. Information and communication: Every regional network serves as an information and communication platform for the network partners. The most important information services are those related to the advantages of participating in a network, i.e., those regarding business opportunities and technology transfer. This requires the network to have a sound knowledge of market conditions and of new technologies (among other issues).

SMEs participating in regional organizational networks of outsourcing and offshoring consider information on the following issues necessary:

- Economic trends (market requirements, products, services, etc.)
- Technological trends
- Information on latest technologies
- Information on the availability and applicability of technology
- Information on Enterprises
- Enterprise profiles to facilitate matchmaking
- Information on competitors (strengths and weaknesses)
- Information on regional supply chains (which products are produced regionally and which are their strengths?)
- Public funding including European funding opportunities.

2. Support to co-operation. Co-operation projects between different enterprises and technology poles successfully facilitate the transfer of technology across SMEs. There is strong evidence that co-operation projects are the single most important and successful methodology to foster enterprise networking and technology transfer. However, enterprises need assistance throughout the process.

The survey shows that enterprises and technology poles consider necessary the following support services that facilitate the initial stages of co-operation between partners:

- Project initiation;
- Partner identification;
- Match-making services/ co-operation partner exchange;
- Establishing connections to partners;
- Organization of the measures to be implemented in consultation with the enterprises;
- Allocation of tasks and responsibilities;

- Drafting contractual safeguards;
- Assistance in applying for supplementary public funding (aid to groups of enterprises to encourage co-operation), etc.
- Bringing together partners should not be limited to merely exchanging enterprise names. It requires analytical and methodological support as well as knowledge of different corporate cultures.

3. Support to training. In the framework of a regional network, training can be understood as making available a wide range of educational possibilities which are focused on the specific needs of the network (e.g. thematic seminars on relevant economic and/ or technical issues, training for professional qualifications; workshops with company representatives, inter-company learning, visits to partner enterprises, etc.). Opening internal seminars of leading enterprises to partner enterprises on a mutual basis can also be a good training opportunity.

4 Support to internationalization: When enterprises go abroad, they have two core objectives: profits increase by applying different cost levels from different regions, and growth by market extension. The enterprise profiles of the survey show a high international share of turnover and procurement. The focus on special products and key-regions is particularly successful. When enterprises go abroad, they usually follow two basic paths. The first is to follow a customer, and subsequently, to expand in the foreign market. The second is to approach an interesting foreign market without being led by a customer. Both approaches cannot be implemented without joint activities, the scope of which can range from loose co-operations restricted to single projects to joint ventures or even takeovers.

Basically, according to the results of the survey, enterprises expect two kinds of services to facilitate their internationalization process. Firstly, they want more information to help them approach foreign markets (enterprise profiles, foreign technological know-how, etc). Secondly they want assistance in establishing relations with potential foreign partners. Moreover, they need information on the availability and applicability of funding opportunities.

In order to assist enterprises in their internationalization process, it is necessary that the network participates in international co-operation exchanges and European program. Ability to process inquiries of partner regions and vice versa should also be made available.

5. PR and marketing. Every regional network has to promote itself in order to attract new members, to create confidence and a positive attitude towards the industry in the region and, more importantly, to build a common identity Recommended PR activities include the provision of information material, the positioning of the network both nationally and internationally, the presentation of the cluster on the Internet, the placing of articles in relevant newspapers, etc.

2.3 Know-how and communication management: A successful regional network must provide the above-mentioned information and support services continuously and ensuring a high level of quality. This requires the implementation of an efficient information service based on modern information technology.

A regional network needs a communication platform where information between partners is exchanged and where the available know-how is systematized and provided to the partners. Such a platform should be easily accessible and allow the partners to retrieve information directly.

In order to systematize know-how and communication, the following questions have to be dealt with:

- Which kind of know-how is made available?
- First phase: information that can be easily retrieved from existing data is provided, e.g. data on consultants, experts or other enterprises;
- Second phase: more extensive advice is given, for example on the know-how and experience of a specific research institute;
- Third phase: access to research and analytical work is provided, including expert assessment on different issues ranging from country reports to the use of specific technologies and advice on the most appropriate location for an investment. Regulatory issues may also be dealt with.
- Which methods are employed to ensure accuracy and timeliness of the data?
- During the start-up period of the network, a pool of know-how must be installed (databases, etc.). Basic information can be collected e.g. through an enterprise survey. Once the database is operational, the members of the network should be asked to update the respective data (e.g. offer and demand of co-operation requests, economic and technological profile).
- Which are the possibilities for partners to access the information pool?
- Regarding the different information technology standard at the level of the partner enterprises, communication in writing, by fax, telephone and e-mail should be made possible. An internet-based solution allowing for a shared workspace is also appropriate.
- Which information technology tools are essential for the successful operation of the network?

The basic data regarding enterprises and co-operation projects (economic and technological profiles of regional enterprises, survey of experts on certain topic, information on co-operation projects, etc.) is stored in multi-field databases (where it is possible to retrieve the necessary information in any given combination).

8. Concluding remarks

Offshoring and offshore outsourcing is not a choice for Europe—it is a fact. Yet, it is an opportunity, rather than a threat. It will generate both winners and losers among Europeans, but it is up to individual governments to ensure countries realize a net gain. Perhaps up to 2 percent of Europe's service-sector employment and a similar minor share of manufacturing employment may be affected in the coming decade, so most ominous European employment predictions must be rejected. Only few reliable data are available to quantify the true extent of the trend, so increased official statistical efforts to gather relevant data must be advocated. For instance, efforts such as the European Commission–funded European Restructuring Monitor will assist policymaking and help inform the public.

Fortunately, no new grand schemes or costly programs are required for European countries to become net beneficiaries from outsourcing and offshoring, in terms of both productivity and employment. Instead, worries over the phenomenon should add new thrust to the implementation of the two parts of the existing Lisbon Agenda that deal with liberalization of Europe's labor markets and opportunities for worker retraining and skill upgrading. Particular efforts must be made to lower the restrictions on hiring and firing workers and restrict the influence of the judicial branch in routine labor-market disputes. Finally, Europe needs to put its people over its land and focus on providing skills to people in stagnating regions, rather than build superfluous new infrastructure there.