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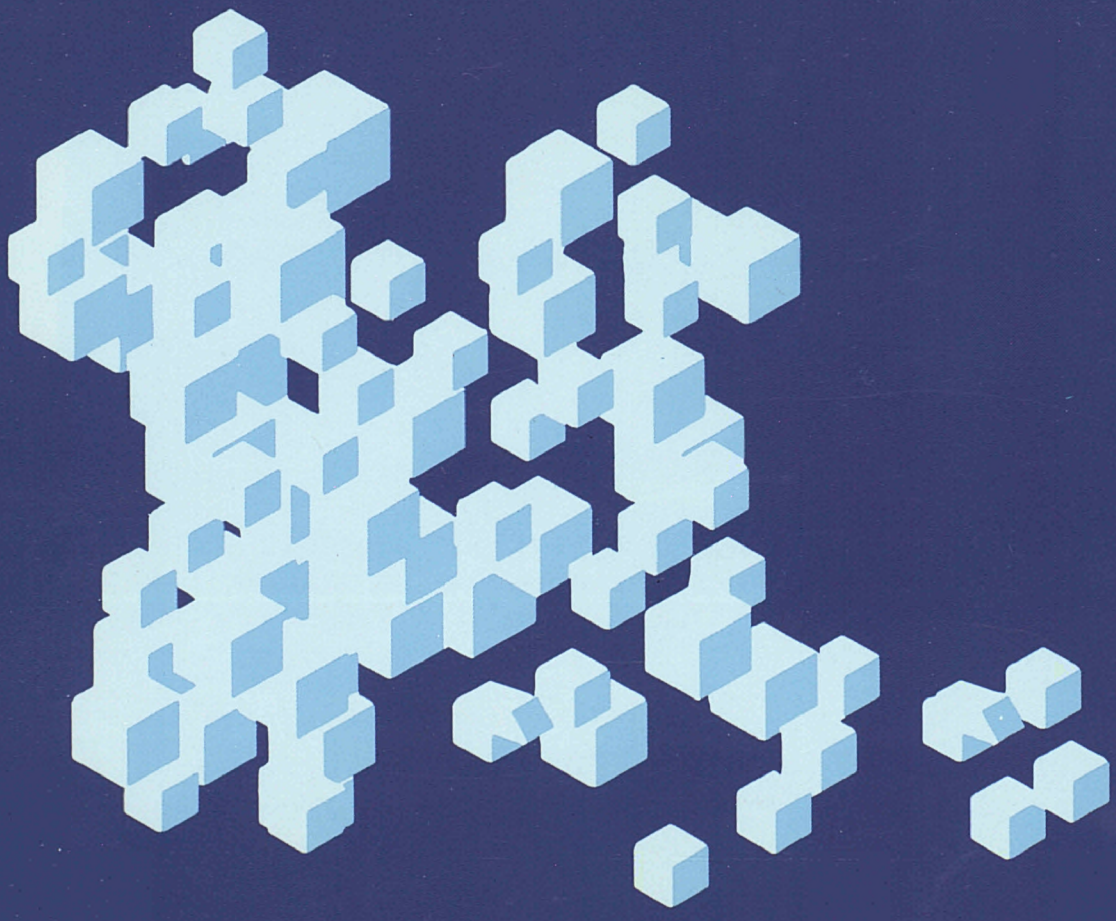

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**New location factors
for mobile investment in Europe**

COMMISSION OF THE EUROPEAN COMMUNITIES

Directorate-General for Regional Policies

New location factors for mobile investment in Europe

Netherlands Economic Institute
in cooperation with
Ernst & Young

Brussels • Luxembourg, 1993

Cataloguing data can be found at the end of this publication

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Luxembourg: Office for Official Publications of the European Communities, 1993

ISBN 92-826-5859-7

Printed in Germany

Preface

Each year, the Directorate-General for Regional Policies of the Commission of the European Communities launches a number of studies in the field of regional policy and regional planning. These studies mainly aim at providing a basis for policy formulation internally, as well as the preparation of programmes and initiatives and a basis for analysing the impact of current or planned activities. The most interesting or innovative of these will now be published in a series entitled *Regional Development Studies.* With this series the Directorate-General hopes to stimulate discussion and action in a wider sphere on the research results received. The publication of the studies is addressed to politicians and decision-makers at European, regional and local level, as well as to academics and experts in the broad fields of issues covered.

It is hoped that by publicizing research results the Commission will enrich and stimulate public debate and promote a further exchange of knowledge and opinions on the issues which are considered important for the economic and social cohesion of the Community and therefore for the future of Europe.

Readers should bear in mind that the study reports do not necessarily reflect the official position of the Commission but first and foremost express the opinion of those responsible for carrying out the study.

Contents

Executive summary and policy advice

Major influences on mobility

In recent years five major developments have influenced the nature and extent of mobile projects. These influences are expected to continue in the next decade. The major developments, which to some extent are interrelated, are:

(i) Globalization of economic activity. Over time, companies have operated increasingly over a wider geographical area. This process embraces European companies operating across more European countries, as well as intercontinental operations. The process has been achieved as a result of both greenfield investments and mergers and acquisition. New players, in terms of countries and companies, have also emerged.

(ii) Enlargement and development of the European Community. This process is continuing, with potential further enlargement, but in particular with the completion of the single European market and the development of economic and monetary union.

(iii) Changing nature of manufacturing. As a result of consumer demand for better quality and more variety, and faster delivery, the dominant system of production is becoming less based on economies of scale and more on economies of scope. The development of new technologies has also stimulated this change. Flexible production methods, with the ability to alter product and process specifications rapidly, are becoming more important.

(iv) Continuing shift of employment in Europe from manufacturing to service activities.

(v) Considerable improvement in transport infrastructure and services across Europe, e.g. roads, rail and air, and in telecommunications.

Impact on mobility

The developments outlined above have had various influences on the nature and degree of mobility. Some key findings are:

Growth and development of intercontinental operations

(i) A very high majority of the top Fortune 500 US companies had already established facilities in Europe by the early 1980s. In many cases, these companies have deepened their investments in Europe by opening new facilities, additional investment in existing facilities, as well as mergers, take-overs and joint ventures. There has also been a recent trend for US companies to open applied R&D facilities in Europe. Other US companies established facilities for the first time in Europe during the 1980s. These various trends are expected to continue.

(ii) Japanese investment in new European facilities expanded very dramatically during the 1980s. There were 89 Japanese-owned manufacturing operations (greenfield investments) in the Community in 1980, and 348 by 1990. The progress in European integration has undoubtedly accelerated this movement. It is possible that the annual flow of new Japanese manufacturing plants has peaked, although we still expect future activity levels in this regard to remain high. We also expect some deepening of investment by Japanese companies with facilities here, including joint ventures with European firms. The first wave of Japanese manufacturing focused mainly on equipment manufacturers. Japanese component suppliers have followed, in an effort to retain their customers.

(iii) At present there are relatively few European plants with origins in newly industrializing countries. These countries will behave increasingly as developed economies. We expect them to become more significant direct investors in Europe during the 1990s.

Increasing specialization across Europe

The development of the single European market, the improvements in European-wide communications, and the associated growth of European-wide multinationals have led to three interesting developments:

(i) Multinationals are increasingly revising their business strategies, for instance with regard to spatial distribution of their production activities. Whereas previously a company might have had similar plants in a number of countries each supplying their local areas, there is a growing trend of rationalization, with plants specializing more in terms of products but then serving a wider geographical area.

(ii) For similar reasons, companies are establishing new distribution centres to serve wider geographical areas.

(iii) A number of companies have set up European headquarters, to take over some of the functions previously carried out by national subsidiaries. Such European-wide headquarters can both reduce direct costs and enable companies to carry out certain tasks more effectively.

Changing nature of manufacturing

The changing nature of manufacturing and distribution has made manufacturing theoretically more mobile. It is no longer necessarily tied to a local resource base.

Shift of employment to service sector

The shift of employment from manufacturing to the service sector has had implications for the totality of mobility. When manufacturing employment was growing in the 1950s and 1960s it led to considerable mobility, e.g. new plant openings, especially at the interregional level within countries. With the long decline in manufacturing employment the pressures which led to mobility have eased. By their very nature, many service activities are less mobile, as they are designed to serve local markets (e.g. leisure facilities). In this context, it is interesting to observe that although many business service companies have become international in operation, much of their work is still undertaken for clients located close to their offices.

In the service sector, major growth has been experienced in insurance and other financial services. Although there are exceptions, most companies in these sectors service largely a national market from a base within the country. Thus, although the back office and administrative functions have become highly mobile within a country, they are not mobile between countries. Research has shown that there are very few back offices serving more than one country, largely for linguistic and other regulatory reasons. This may change with greater liberalization, especially as cross-border ownership increases.

Extent of mobile activities

There is a paucity of historical data on the extent of mobile investment across Europe during the 1950s and 1960s. It is therefore not possible to say whether there has been more mobility in recent years than there was then. It is probably true, however, that there have been more mobile activities from the mid-1980s onwards than there had been during the long recessionary period of the mid-1970s to early 1980s. In addition, with respect to manufacturing, it would appear that projects are now potentially mobile over a wider geographical area than they used to be. For example, much of the mobility during the 1960s was of an interregional nature, and only a restricted number of countries were considered potential locations by multinationals.

We believe that the recent trends in mobility will continue and that there will be a significant number of mobile projects during the 1990s.

Location factors

A key conclusion from empirical work carried out for this project and from other studies is that most location decisions are in the end influenced by a wide variety of factors. There is not 'one single overriding location factor'. Companies are looking for a combination of ele-

ments and the outstanding attribute of a winning country/region is that it has the particular combination of characteristics that best satisfy the criteria of a specific project. In many cases, the final choice of location can also be observed to be a close one between alternative regions or countries. In fact, there is a very considerable diversity in the key influences on location decisions between project types and between companies. Therefore no simple model of location determinants can be constructed.

Another key finding is that non-cost factors, such as the availability and quality of labour, have become more important through time and are now typically as important, if not more important, than financial factors. A wide variety of non-cost 'subjective' factors, partly knowledge-based, are relevant to different project types: these various factors are discussed below. This does not, however, mean that cost factors are unimportant. Such factors clearly dominate some location decisions and even when the subjective factors are more important in the final choice of location, cost factors have generally had a significant influence on the selection of a short list, i.e. the final choice is often made between locations with broadly similar cost and profit dimensions.

We now discuss individually some key location factors.

Non-cost 'subjective' factors

(a) Proximity to market remains a very important location factor for all types of activity. It is particularly important for manufacturing and distribution projects. This factor emerged as a key factor in surveys during the 1960s and 1970s and was equally important in the survey conducted for this study. The geographical basis of the relevant market has broadened, however. The EC market as a whole has become of greater importance as a location factor relative to national markets.

(b) Quality and availability of labour, including skilled labour, are important to a significant minority of manufacturing, distribution and service projects and to a majority of R&D projects. For some more traditional manufacturing industries, a key factor is whether a local area has a sufficient pool of labour available with an industrial background and willing to work shifts or conform to standards, etc. The availability of specific skills tends to be more important in location decisions for industries such as electronics, software, financial services and R&D.

(c) Quality of life and personal factors are extremely important in head-office location decisions and also significant for other activity types. These factors are particularly important for projects where a substantial number of managers or employees are expected to relocate, or where companies are looking to recruit new employees from national or international labour markets.

(d) Quality of transport infrastructure remains a dominant location factor for distribution projects. Even with manufacturing projects it is important and in our survey was identified as a critical factor for over a quarter of such projects. For many international head-office projects, proximity to a major, international airport is extremely important: short lists are often drawn up with proximity to an airport as a fundamental requirement.

(e) Quality of telecommunications is important to a significant minority of office, service sector and distribution projects. For these projects, companies sometimes require a minimum standard of services to be available and locations where the quality of telecommunications is below that initial level may not even be considered.

(f) Cultural affinity with the host country and language skills are important considerations for a significant minority of projects. These factors are particularly important to many US and Japanese investors and especially to those making their first substantial investment in Europe. The UK and Ireland gain some advantage from these considerations. However, we believe that these factors are becoming less important over time, as capabilities in languages generally improve. It can also be observed that there is some

tendency for US companies which established their first facility in the UK or Ireland to look positively to establishing their second facility on the continent, thus gaining a more 'European' image.

(g) Effective promotion by national and local government can be important in drawing up short lists, but is particularly important in influencing the final choice of location, when the differences between the locations which have been short-listed can be fairly narrow.

(h) A significant number (half in our survey) of companies are influenced in their location decisions by the desire to be close to companies carrying out similar activities.

(i) There is some tendency for companies establishing new European headquarters to do so at a different location from that of their main subsidiaries. This helps to establish a separate identity.

Financial factors

The cost of labour and of land or premises are the two most important direct cost factors, but neither were identified as either a critical or important factor in the final location decision by a majority of companies surveyed in any of the five activity types analysed. Corporate taxation is critical to a significant minority of head-office decisions, but not generally of major importance to other project types. For a high percentage of manufacturing projects located in 'assisted areas', financial incentives are important, especially for the choice of region.

Regional impact

Our work suggests that many regions will be able to benefit from mobile activities during the next decade. A very wide variety of location factors is considered by decision-makers and most regions have characteristics to attract certain types of project.

Many companies, in making their location decisions, face a key trade-off: how to balance the advantages to be derived from being close to their main markets against the cost and other benefits often associated with a location elsewhere. One can usefully distinguish three types of region:

(i) central regions in relation to purchasing power;

(ii) intermediate regions which fall outside the main centre of purchasing power, but which are within relatively easy reach;

(iii) peripheral regions which face greater problems and costs of communicating with the centre and are also seen as being somewhat remote from the main markets. This latter point can be important for manufacturing companies, even if transport cost differentials are not significant.

We believe that, although 'central' regions will continue to gain advantages from their market accessibility, 'intermediate' regions in particular can counter most of these advantages with less congestion, better quality of life, lower costs, financial incentives, etc. In fact, that is true of nearly all types of economic activity. Headquarters of multinationals and specialized financial services will continue to concentrate in 'central' regions, however.

On the basis of cost differentials and financial incentives, various 'peripheral' regions have also attracted a substantial amount of (foreign) mobile investment in the recent past, notably in manufacturing. In parts of Scotland and Ireland (Midwest), the Lisboa and Porto regions in Portugal, several parts of the Spanish Mediterranean coast (Barcelona, Valencia, Malaga), Puglia (Bari) in Italy, and the Thessaloniki region in Greece, that already have fairly developed socio-economic infrastructures, these investments contributed considerably to their economic development.

In the near future, the cost differentials of 'peripheral' regions may become smaller as a result of the harmonization of macro-economic conditions and upward pressures on wage levels that will ensue from the development of economic and monetary union. Despite this

tendency, some 'peripheral' regions will be able to maintain or even increase their attractiveness for mobile investment, which will improve their economic situation contrary to others that will (continue to) lose out. Especially 'peripheral' regions that lack basic conditions to several knowledge-based factors, may find it difficult to attract mobile investment.

Policy recommendations

Our research has suggested that, while there will be a significant amount of mobile investment during the 1990s, it will most probably be insufficient to overcome the problems of the regions with relatively high unemployment. Without giving up their efforts to attract mobile investment, such regions should therefore also continue with policies to develop indigenous potential. Our main recommendations, however, relate to policies to attract mobile investment.

We believe that mobile investment can bring significant benefits to regions apart from the direct employment and value-added generated. Companies new to an area, especially those from other countries, can help to raise the quality of jobs and training provided. They can also introduce new management techniques, new attitudes to industrial relations and new technology to a region. However, such effects are not automatic. Regional and local governments can do much to help them come about by pursuing active policies. In fostering training and local linkages, the favourable effects often diffuse to other companies in the region.

There has been some suggestion that companies tend to close their foreign plants and subsidiaries at times of decline. There is evidence, however, that by enhancing the functions, status and local linkages of foreign-owned plants, regions become less sensitive to closures and divestitures.

Traditional regional policies, as applied by both the EC and national governments, have typically embraced infrastructure development, financial incentives and various supply-side measures. It is clear from our research that such policies still have relevance. However, our research also suggests that policies should perhaps be applied in a more targeted manner.

There is intense and growing competition among regions for mobile investment. Our research has suggested:

(i) a wide variety of factors influence location decisions, and companies are looking for a combination of elements;

(ii) there is considerable diversity in the key influences on location decisions among project types and among companies;

(iii) there is a tendency for companies to choose regions where there are already similar activities;

(iv) local promotional policies and support are very important in the final choice of location.

These various points suggest three major policy themes:

(i) Regions should examine their relative strengths and weaknesses against their main competitors. They should then develop strategies and policies to attract the particular types of activities and sectors which they have a reasonable chance of securing. Regions should thus be selective in the type of mobile activities they target and should seek to develop a degree of sectoral specialism, e.g. witness the success of Sophia Antipolis and Scotland with their targeted promotional policies. Intermediate and more peripheral regions should not necessarily try to (re-)create the infrastructure and service provision of more central regions. While we are recommending some sectoral focus, this should not, however, be taken to extremes as there is a considerable random element in location choice. Moreover, regions should not become over-reliant on any one sector or else they may face future problems of restructuring.

(ii) Regions should develop a rounded package of measures relevant to their selected strategy. They should study the key factors which influence the location decisions of companies in their chosen sectors. Wherever appropriate, they should enhance

the resource base in appropriate areas, e.g. review training policies to ensure necessary labour skills are met. In particular, they should ensure that infrastructure and other facilities, e.g. quality of telecommunications, are at least above the minimum standards which the sector requires. Regions should then prepare promotional strategies and material relevant to the sectors they are seeking. This material should highlight the reasons why the region is particularly appropriate for the sector in question, e.g. quality of labour, local contacts or R&D strengths, etc. The local promotional bodies also need to ensure that they have detailed information available on the sector, e.g. local suppliers, so that they can handle enquiries in a full and helpful manner. Mobile investors require detailed information relevant to them, not generalities or hype.

(iii) Regions should try, if possible, to attract activities which will be stable and which contribute, beyond the immediate jobs and value-added created, to the development of the region. Particular attention and stronger incentives should therefore be given to projects which:

(a) lead to significant new training for the work-force in new skills, technologies, or methods of working. Such training will enhance the future employability of the work-force in other companies;
(b) introduce new technology or management approaches to the region, especially if these are likely to be relevant to other companies locally;
(c) embrace some degree of R&D or higher management functions. The presence of these functions can enhance the future security of the new operation, as well as improving the knowledge base of the region.

Other policy conclusions which regions and/or the Commission should consider, are:

(a) for certain types of projects, in particular for those where companies are looking to encourage existing employees to move or to recruit from a national or international labour market, quality of local life and of working environment is important. All regions seeking mobile investment should ensure they give adequate attention to these issues;

(b) quality and attitudes of labour, and skills available, are as important, if not more important, than costs of labour. Regional plans should ensure that there are sufficient skills locally to meet the needs of mobile investors. As part of local training and education, there should also be an attempt to inform people about the work requirements and ethics of mobile investors;

(c) countries or regions, especially those which face difficulties in attracting mobile investment, should try to focus their efforts on a limited number of regions or cities. These areas should be those with the potential to attract new companies; they should not necessarily be the 'worst-off' areas;

(d) the Commission should try to decrease the level of financial incentives in the Community, whilst keeping the differential in effective levels of support between the more prosperous regions and peripheral or disadvantaged areas. Although the latter areas are permitted under EC regulations to offer the highest rates of grants, they often cannot afford to do so because of budgetary constraints.

Résumé et recommandations

Principaux facteurs de mobilité

Ces dernières années, cinq facteurs principaux ont influencé la nature et l'ampleur des projets de mobilité. Cette situation devrait persister au cours de la prochaine décennie. Ces facteurs, qui sont en quelque sorte interdépendants, sont les suivants:

1) mondialisation de l'activité économique. Avec le temps, le champ d'activité des sociétés s'est étendu à une aire géographique de plus en plus vaste. Ce processsus touche les sociétés européennes qui travaillent dans un plus grand nombre de pays européens ainsi que des entités intercontinentales. Il s'est réalisé, d'une part, à la suite d'investissements entièrement nouveaux et, d'autre part, à la suite de fusions et d'acquisitions. De nouveaux partenaires sont apparus, sociétés ou pays,

2) élargissement et développement de la Communauté européenne. Ce processus se poursuit et aboutira peut-être à un nouvel élargissement, mais il se poursuit en particulier par l'achèvement du marché unique européen et l'institution de l'Union monétaire européenne;

3) nature changeante de l'industrie manufacturière. Conformément à la demande des consommateurs, qui exigent une amélioration de la qualité des produits, une plus grande variété ainsi que des délais de livraison plus courts, le système de production dominant est désormais moins fondé sur des économies d'échelle et davantage sur des économies de gamme. La mise au point de nouvelles technologies a également favorisé cette évolution. Des méthodes de production souples, capables de s'adapter rapidement à de nouveaux produits et procédés de fabrication, gagnent en importance,

4) déplacement continu de la main-d'œuvre en Europe, du secteur manufacturier vers le secteur des services

5) amélioration considérable des infrastructures de transport et des services dans toute l'Europe (route, rail et air) ainsi que des télécommunications.

Incidence sur la mobilité

Les facteurs ci-dessus ont influencé, à des degrés divers, la nature et l'ampleur de la mobilité. Parmi les constatations essentielles, citons-en quelques-unes.

Croissance et développement des entités intercontinentales

- Dans leur très grande majorité, les 500 plus grandes sociétés américaines disposaient de sièges en Europe au début des années 80. Dans de nombreux cas, ces sociétés ont consolidé leurs investissements en Europe en ouvrant de nouveaux sièges, en accroissant leurs investissements dans les sièges existants ainsi qu'en concluant des fusions, des reprises et des associations temporaires d'entreprises. On a également constaté récemment une tendance des sociétés américaines à ouvrir en Europe des centres de recherche et de développement appliqués.

  D'autres sociétés américaines ont installé leur première filiale en Europe au cours des années 80. Ces diverses tendances devraient persister.

  Les investissements japonais dans de nouvelles entreprises européennes ont connu une phase d'expansion explosive au cours des années 80. En effet, le Japon possédait 89 entreprises manufacturières (investissements entièrement nouveaux) en Europe en 1980 et 348 en 1990. La progression de l'intégration européenne a sans aucun doute accéléré ce processus. Il est possible que nous ayons dépassé le pic du nombre annuel d'arrivées de nouvelles entreprises manufacturières japonaises, mais nous prévoyons que l'activité restera soutenue dans ce domaine. Nous pensons aussi que les sociétés japonaises développeront leurs investissements par la création de nouveaux sièges européens ainsi que la conclusion d'associations momentanées avec des entreprises européennes. La première vague d'in-

vestissements japonais a été principalement orientée vers les fabricants d'équipements. Les fournisseurs de composants japonais ont suivi afin de conserver leur clientèle.

- Actuellement, on compte relativement peu d'usines européennes créées à partir de pays nouvellement industrialisés. Ces pays se comporteront de plus en plus comme des pays économiquement développés, et nous nous attendons à ce que leur rôle d'investisseurs directs en Europe se développe au cours des années 90.

Développement de la spécialisation dans toute l'Europe

La réalisation du marché européen unique, les améliorations des communications à l'échelle de l'Europe ainsi que la croissance connexe des entreprises multinationales à la dimension de l'Europe ont eu trois conséquences intéressantes:

1) les sociétés multinationales corrigent de plus en plus leur stratégie économique, par exemple en ce qui concerne la distribution géographique de leurs activités de production. Tandis que jadis une société aurait pu avoir des établissements similaires dans divers pays, chacun d'eux desservant son propre secteur, on constate un mouvement de rationalisation croissante caractérisée par le fait que des usines se spécialisent davantage dans les produits, mais desservent en contrepartie un secteur géographique plus étendu;

2) pour des raisons semblables, les sociétés créent de nouveaux centres de distribution desservant des secteurs géographiques plus étendus

3) Certaines sociétés ont créé des sièges principaux européens qui assument certaines des fonctions anciennement dévolues à des filiales nationales. Ces sièges européens permettent à la fois de réduire les coûts directs et aux sociétés d'accomplir plus efficacement certaines tâches.

Nature changeante de la fabrication

La nature changeante de la fabrication et de la distribution a, en théorie, accru la mobilité de ce secteur qui n'est désormais plus nécessairement lié à des ressources locales.

Déplacement de l'emploi vers le secteur des services

Le déplacement de l'emploi du secteur manufacturier vers le secteur des services a affecté la mobilité globale de la main-d'œuvre. La croissance de l'emploi dans le secteur manufacturier au cours des années 50 et 60 a engendré une mobilité considérable, c'est-à-dire que de nouvelles usines ont été créées particulièrement dans les zones frontalières. Avec le déclin constant de l'emploi dans le secteur manufacturier, les pressions à la mobilité se sont atténuées. En raison même de la nature des services, de nombreuses activités de ce secteur sont moins mobiles attendu qu'elles desservent spécifiquement des marchés locaux (par exemple activités de loisirs). Dans ce contexte, il est intéressant de noter que, si le champ d'activité de nombreuses sociétés de service est devenu international, une grande partie de leur travail concerne encore des clients situés à proximité de leurs bureaux.

Dans le secteur des services, une croissance importante a été enregistrée dans les domaines des assurances et d'autres services financiers. Malgré certaines exceptions, la plupart des sociétés de ces secteurs travaillent pour un marché national à partir d'un siège établi dans le pays. Ainsi, bien que les fonctions postmarché et les fonctions administratives soient devenues très mobiles à l'intérieur d'un pays, elles ne le sont pas entre pays. La recherche a démontré qu'il existe très peu de bureaux postmarché desservant plus d'un pays, principalement pour des raisons linguistiques ou pour d'autres raisons, notamment réglementaires. La situation peut changer à la suite d'une libéralisation accrue, particulièrement si la propriété internationale se développe.

Ampleur des activités mobiles

Il existe peu de données historiques concernant l'ampleur des investissements sur le territoire européen dans les années 50 et 60. Il est donc impossible de dire si la mobilité a été plus grande ces dernières années qu'à cette époque. Il est probablement vrai cependant qu'il

a été créé davantage d'activités mobiles à partir du milieu des années 80 qu'il n'en a été pendant la longue période de récession du milieu des années 70 au début des années 80. En outre, en ce qui concerne les activités manufacturières, il apparaîtrait que les projets seraient désormais potentiellement mobiles sur une ère géographique plus étendue qu'auparavant. Par exemple, au cours des années 60, une grande partie de la mobilité s'opérait entre régions, et seulement un nombre restreint de pays étaient considérés comme des lieux d'implantation potentiels par les sociétés multinationales.

Nous croyons que les tendances récentes de la mobilité persisteront et que le nombre de projets mobiles atteindra un niveau significatif au cours des années 90.

Facteurs d'implantation

Une conclusion majeure tirée du travail empirique effectué aux fins du présent projet ainsi que d'autres études est que la plupart des décisions relatives à l'implantation sont, en fin de compte, influencées par des facteurs très variables. Il n'existe pas «un seul facteur d'implantation absolu». Les sociétés recherchent une combinaison d'éléments et le mérite principal d'un pays ou d'une région retenu(e) est de présenter une combinaison particulière de caractéristiques répondant le mieux aux critères d'un projet particulier. Dans bien des cas, le choix définitif des lieux d'implantation peut aussi résulter d'une compétition très serrée entre divers pays ou régions. En fait, les principaux facteurs influençant la décision quant à l'implantation géographique sont très variables selon les types de projets et les sociétés.

C'est pourquoi il est impossible de construire un modèle simple de facteurs déterminant une implantation.

Une autre conclusion majeure est que des facteurs non onéreux, tels que la disponibilité et la qualité de la main-d'œuvre ont vu leur importance croître avec le temps pour devenir désormais aussi importants, voire plus importants que les facteurs financiers. Une grande variété de facteurs «subjectifs» non onéreux, partiellement fondés sur les connaissances, sont importants pour divers types de projets: ces divers facteurs seront examinés ci-dessous. Cela ne signifie toutefois pas que les facteurs de coûts ne soient pas importants. De tels facteurs sont absolument essentiels pour certaines décisions d'implantation et même lorsque les facteurs subjectifs sont plus importants dans le choix final de l'implantation, les facteurs de coût ont généralement eu une influence significative sur la sélection d'une liste limitée de lieux d'implantation, c'est-à-dire que le choix final s'opère souvent entre lieux d'implantation présentant une configuration coûts/bénéfices grosso modo similaire.

Voyons maintenant un à un certains facteurs d'implantation.

Facteurs «subjectifs» non onéreux

a) La proximité du marché demeure un facteur d'implantation très important pour tout type d'activité. C'est un élément particulièrement important pour des projets relatifs à la fabrication et à la distribution. Ce facteur est apparu comme un élément déterminant dans des enquêtes effectuées dans les années 60 et 70 et était également important dans l'enquête effectuée aux fins de la présente étude. La base géographique du marché considéré s'est toutefois élargie. Le marché communautaire dans son ensemble a gagné en importance en tant que facteur de localisation par rapport aux marchés nationaux.

b) La qualité de la main-d'œuvre et la disponibilité de main-d'œuvre, y compris la main-d'œuvre qualifiée, sont des éléments importants pour une minorité non négligeable de projets réalisés dans le domaine de la fabrication, de la distribution et des services et pour une majorité de projets de recherche et de développement. Pour certaines industries manufacturières plus traditionnelles, un élément déterminant consiste à savoir si une région déterminée offre une quantité de main-d'œuvre suffisante, disposant des connaissances requises et disposée à travailler en équipe ou selon certaines normes, etc. La disponibilité d'une main-d'œuvre ayant certaines compétences techniques tend à gagner en importance pour les décisions d'implantation d'industries telle, que

l'électronique, la fabrication de logiciels, les services de financement ainsi que la recherche et le développement.

c) La qualité de vie et les facteurs personnels revêtent une importance extrême dans les décisions d'implantation du siège principal et ont aussi une importance significative pour d'autres types d'activités. Ces facteurs sont particulièrement importants pour des projets impliquant le déplacement d'un nombre considérable de directeurs ou d'employés, ou lorsque les sociétés cherchent à embaucher de nouveaux employés sur les marchés du travail nationaux ou internationaux.

d) La qualité des infrastructures de transport demeure un facteur d'implantation essentiel pour des projets d'activités de distribution. Il est important même pour des projets du secteur de la fabrication et a été considéré dans notre enquête comme un facteur déterminant pour plus d'un quart de tels projets. Pour bon nombre de projets relatifs au siège principal d'activités internationales, la proximité d'un grand aéroport international est extrêmement importante. Les listes sommaires qui sont établies disposent souvent que la proximité d'un aéroport est une condition capitale.

e) La qualité des télécommunications est un élément important pour une minorité significative de projets d'implantation dans les secteurs des bureaux, des services et de la distribution. Pour ces projets, les sociétés exigent parfois de disposer d'une qualité de services minimale, et il est possible que les endroits où la qualité des télécommunications n'atteint pas ce seuil ne soient même pas pris en compte.

f) L'affinité culturelle avec le pays hôte et les connaissances linguistiques sont des points importants pour une minorité significative de projets. Ces facteurs sont particulièrement importants pour bon nombre d'investisseurs américains et japonais, et particulièrement pour ceux qui réalisent leur premier gros investissement en Europe. Le Royaume-Uni et l'Irlande présentent certains avantages de ce point de vue. Cependant, nous croyons que ces facteurs perdent de leur importance avec le temps étant donné que les connaissances linguistiques s'améliorent dans l'ensemble. On peut également observer chez les sociétés américaines qui ont établi leur première implantation, dans le Royaume-Uni ou en Irlande la tendance à envisager positivement la création de leur seconde implantation sur le continent, ce qui leur confère une image plus «européenne».

g) Une aide efficace des gouvernements nationaux et locaux peut être un élément important pour l'établissement de listes sommaires mais revêt une importance particulière quant au choix définitif du lieu d'implantation, lorsque les différences entre les lieux figurant sur cette liste se révèlent assez faibles.

h) Une proportion significative (la moitié dans notre enquête) des sociétés sont influencées, quant au choix du lieu d'implantation par le désir d'être proches des sociétés travaillant dans des secteurs similaires.

i) On note de la part des sociétés créant de nouveaux sièges européens une certaine tendance à retenir un lieu différent de ceux où se situent leurs principales filiales. Cela leur permet de se faire une identité propre.

Facteurs financiers

Le coût de la main-d'œuvre et celui des terrains ou bâtiments sont les deux facteurs de coûts directs les plus importants, mais aucun d'eux n'est considéré comme un facteur déterminant ou important pour la décision finale d'implantation retenue par une majorité des sociétés examinées dans le cadre d'aucun des cinq types d'activités analysés. L'impôt sur les sociétés est une question primordiale pour un nombre significatif de décisions relatives à l'implantation du siège principal, mais n'est généralement pas d'une grande importance pour d'autres types de projets. Pour un pourcentage élevé de projets d'entreprises manufacturières situées dans des zones encouragées, les incitations financières sont importantes, particulièrement pour le choix de la région.

Incidence régionale

Les conclusions de nos travaux tendent à démontrer que de nombreuses régions pourront bénéficier d'activités mobiles au cours de la prochaine décennie. Un très grand nombre de facteurs d'implantation sont pris en considération par les décideurs, et la plupart des régions présentent des aspects particuliers, susceptibles d'attirer certains types de projets.

Dans le choix du lieu de leur implantation, de nombreuses sociétés sont confrontées à un dilemne majeur: comment parvenir à un équilibre entre les avantages qu'offre la proximité des principaux marchés et les coûts ou autres avantages souvent liés à un autre lieu d'implantation. Il est utile pour cela de distinguer trois types de régions:

- les régions centrales du point de vue du pouvoir d'achat;
- les régions intermédiaires, excentrées par rapport à la principale zone de pouvoir d'achat mais relativement accessibles;
- les régions périphériques, placées devant de plus grandes difficultés et confrontées aux coûts de la communication avec le centre et considérées aussi comme relativement à l'écart des principaux marchés. Ce dernier point peut avoir son importance pour les entreprises manufacturières, même si les écarts de coûts de transport ne sont pas significatifs.

Nous croyons que si les régions «centrales» continueront à tirer profit de leur proximité du marché, les régions «intermédiaires» en particulier sont en mesure de contrebalancer la plupart de ces avantages du fait d'une moindre congestion, d'une meilleure qualité de vie, de coûts inférieurs, d'incitations financières, etc. En fait, cela est vrai pour pratiquement tout type d'activité économique. Les sièges principaux de sociétés multinationales et les services financiers spécialisés resteront cependant concentrés dans les régions «centrales».

À cause des écarts de coûts et des incitations financières, plusieurs régions «périphériques» ont attiré des investissements mobiles (étrangers) substantiels dans un passé récent, notamment dans l'industrie manufacturière. Ces investissements ont contribué considérablement au développement économique de certaines parties d'Écosse et d'Irlande (Midwest), des régions de Lisbonne et de Porto au Portugal, de diverses zones de la côte méditerranéenne de l'Espagne (Barcelone, Valence, Malaga), des Pouilles (Bari) en Italie et de la région de Thessalonique en Grèce, qui disposent déjà d'infrastructures socio-économiques relativement développées.

Dans le proche avenir, il est possible que les écarts de coûts relatifs aux régions «périphériques» se réduisent par suite de l'harmonisation des conditions macro-économiques et d'une tendance à la hausse des salaires, qui résultera de la mise en place de l'Union monétaire européenne. Néanmoins, certaines régions «périphériques» seront en mesure de maintenir, voire d'accroître l'intérêt qu'elles présentent pour l'investissement mobile, ce qui améliorera leur position économique contrairement à d'autres dont la situation continuera à se dégrader. Particulièrement, les régions «périphériques» qui ne remplissent pas les conditions fondamentales requises pour le développement des facteurs fondés sur la connaissance, pourraient avoir des difficultés à attirer des investissements mobiles.

Recommandations politiques

Nos recherches ont permis de noter que si les investissements mobiles atteindront un volume significatif au cours des années 90, ils seront très probablement insuffisants pour résoudre les difficultés auxquelles sont confrontées les régions présentant un taux relativement élevé de chômage. Sans renoncer à attirer des investissements mobiles, de telles régions devraient donc aussi poursuivre leur politique de développement de leur potentiel propre. Nos principales recommandations concernent cependant des mesures visant à attirer l'investissement mobile.

Nous croyons que, en plus de l'emploi direct et de la valeur ajoutée induite, l'investissement mobile est capable d'engendrer des avantages significatifs pour les régions.

Les sociétés nouvellement arrivées dans une région, particulièrement celles provenant d'autres pays, peuvent contribuer à améliorer la qualité de l'emploi et de la formation. Elles peuvent aussi apporter de nouvelles techniques de gestion, de nouveaux comportements dans les relations industrielles et de nouvelles technologies dans une région. Cependant, de tels effets ne sont pas spontanés. Les autorités régionales et locales peuvent grandement contribuer à leur réussite par la mise en œuvre de mesures actives. En encourageant la formation et en développant les liens locaux, les effets bénéfiques se répercutent souvent sur d'autres sociétés de la région.

Il a été dit que les sociétés tendent à fermer leurs filiales et établissements étrangers en période de récession. Néanmoins, des preuves existent selon lesquelles, en renforçant les fonctions, le statut et les liens locaux des usines appartenant à des étrangers, les régions risquent moins d'être exposées aux fermetures et au désinvestissement.

Les politiques régionales traditionnelles, appliquées par la Communauté européenne et les gouvernements nationaux, ont essentiellement porté sur le développement des infrastructures, les incitations financières et diverses mesures du secteur amont. Notre recherche met clairement en évidence que de telles politiques conservent leur importance. Toutefois, elle tend aussi à démontrer que ces mesures devraient peut-être s'appliquer de manière plus ciblée.

La chasse à l'investissement mobile s'intensifie entre les régions. Notre enquête a révélé:

— que de nombreux facteurs influencent les décisions d'implantation géographique et que les sociétés s'efforcent de trouver un compromis entre éléments à considérer;

— que les facteurs clés influençant les décisions relatives à l'implantation géographique sont très variables suivant les types de projets et les sociétés;

— que les sociétés ont tendance à retenir les régions où il existe déjà des activités similaires;

— que les mesures promotionnelles et les aides locales pèsent d'un très grand poids dans le choix final de l'emplacement.

Ces divers points tendent à mettre en évidence trois éléments majeurs:

1) les régions devraient soupeser leurs avantages et inconvénients par rapport à leur principal concurrent. Elles devraient ensuite mettre au point des stratégies et des politiques visant à attirer les types particuliers d'activités et de secteurs qu'elles peuvent raisonnablement espérer toucher. Les régions devraient donc sélectionner le type d'activités mobiles qu'elles visent et chercher à acquérir un certain degré de spécialisation sectorielle (voir par exemple, le succès de Sophia Antipolis et de l'Écosse avec leurs politiques promotionnelles ciblées). Les régions intermédiaires et les régions plus périphériques ne devraient pas nécessairement chercher à (re)créer les infrastructures, notamment de services, de régions plus centrales. Si nous préconisons un certain ciblage sectoriel, il ne faudrait toutefois pas prendre cet avis au pied de la lettre étant donné qu'il existe un facteur aléatoire considérable dans le choix d'un lieu d'implantation. En outre, les régions ne devraient pas devenir trop tributaires d'un secteur déterminé pour éviter de se trouver confrontées à des difficultés de restructuration ultérieure;

2) les régions devraient mettre au point un ensemble de mesures appropriées à la stratégie qu'elles ont retenue. Elles devraient examiner les facteurs clés influençant les décisions des sociétés qui n'ont pas d'implantation dans les secteurs retenus. Le cas échéant, elles devraient développer les ressources existantes dans des domaines appropriés, par exemple réexaminer leur politique de formation pour faire face aux besoins de main-d'œuvre qualifiée. Elles devraient en particulier veiller à ce que notamment les infrastructures, par exemple la qualité des télécommunications, soient au moins supérieures

aux normes minimales exigées par le secteur. Les régions devraient alors préparer des stratégies promotionnelles et de la documentation intéressant les secteurs cibles. Cette documentation devrait mettre en évidence les raisons pour lesquelles la région se prête particulièrement aux activités du secteur en cause, par exemple la qualité de la main-d'œuvre, les contacts locaux ou le potentiel de recherche et de développement, etc. Les organismes promotionnels locaux doivent aussi veiller à disposer d'une information détaillée sur le secteur, par exemple les fournisseurs locaux, de sorte qu'ils puissent mener des enquêtes utiles et approfondies. Les investisseurs mobiles demandent des informations précises sur les régions et non des propos emphatiques;

3) les régions devraient s'efforcer, si possible, d'attirer des activités permanentes contribuant, au-delà des emplois immédiats et de la valeur ajoutée créée, au développement de la région. Une attention particulière et des incitations plus fortes devraient donc être accordées à des projets qui:

   — entraînent une augmentation significative des mesures de formation de la main-d'œuvre à de nouvelles compétences, technologies ou méthodes de travail. Cette formation développera les possibilités ultérieures d'emploi de cette main-d'œuvre dans d'autres sociétés;

   — introduisent de nouvelles technologies ou formes de gestion dans la région, particulièrement si celles-ci ont des chances d'intéresser d'autres sociétés établies sur place;

   — traitent de recherche et de développement ou encore de fonctions de gestion supérieures. L'existence de telles fonctions peut consolider la nouvelle activité et améliorer la gamme des connaissances disponibles dans la région.

Parmi les autres conclusions d'ordre politique que les régions et/ou la Commission devraient considérer, citons:

a) la qualité de la vie locale et du climat de travail est importante pour certains types de projets, en particulier ceux par lesquels les sociétés cherchent à encourager la mobilité du personnel existant ou à recruter sur un marché du travail national ou international. Toutes les régions qui s'efforcent d'attirer les invetissements mobiles devraient veiller à accorder à ces problèmes toute l'importance qu'ils méritent;

b) la qualité et l'attitude du personnel ainsi que les compétences disponibles sont aussi importantes, voire davantage que le coût de la main-d'œuvre. Les plans régionaux devraient garantir la disponibilité de compétences locales suffisantes pour répondre aux besoins des investisseurs mobiles. Dans le cadre du système de formation et d'enseignement local, il faudrait aussi veiller à informer les gens sur les exigences du travail et la déontologie des investisseurs mobiles;

c) les pays ou régions, particulièrement ceux et celles qui éprouvent des difficultés à attirer des investissements mobiles, devraient faire porter leurs efforts sur un nombre limité de régions ou de villes, lesquelles devraient être en mesure d'attirer de nouvelles sociétés; elles ne devraient pas nécessairement être les régions les «plus défavorisées»;

d) la Commission devrait chercher à réduire le niveau des incitations financières dans la Communauté, tout en maintenant l'écart entre les taux effectifs d'aide accordés aux régions les plus prospères et les régions périphériques ou désavantagées. Bien que ces dernières soient autorisées, conformément à la réglementation communautaire, à offrir les taux de subvention les plus élevés, elles sont dans l'incapacité de le faire à cause de contraintes budgétaires.

1. Introduction

1.1. Context and objective of the study

Economic conditions do not remain the same through time, but change under the influence of technological innovation, societal needs, competition among firms, and institutional and regulatory circumstances. That dynamic situation manifests itself basically in the successive emergence of new economic activities and the adjustment or even decline of existing ones. As new and adjusted economic activities often differ from previous ones in type of product and in organization and method of production, they may also have different locational requirements and therefore tend to locate at different sites.

Changing technology, lower transport costs and improved access have given most firms much more freedom of location than they used to have. Along with the opening up of new markets, the first steps towards economic integration, and the emergence of multilocational and multinational firms, that new freedom has given rise to a lot of mobile investments in Europe of both foreign and European firms in the post-war period. Quite a few of these investments were made in less developed regions, creating new opportunities for their economic growth. However, the economic recession of the mid-1970s caused a considerable fall in the total number of mobile investments. Besides, economic restructuring, particularly in multinationals, led to disinvestment, often concentrated in branch plants. Henceforth, many regions had to rely on their own capacities to overcome the economic crisis. The situation reflected itself clearly in the types of regional policy developed at the time, designed to foster the indigenous potential of local and regional economies.

As usual, the basis for economic recovery was laid during the years of crisis. Radical economic restructuring and technological innovation created the conditions for new economic growth. The 'Eurosclerosis' that prevailed in Europe around the beginning of the 1980s was replaced with new dynamism. In political terms this dynamism was translated into new initiatives to deepen European integration. In particular, the single-market programme has given an impetus to economic efficiency, because it will remove remaining barriers to the free movement of goods, services and persons in the Community. Even before this programme was implemented, firms started to adapt their business strategies to the creation of the internal European market. Apart from mergers and take-overs and the rationalization of existing facilities, new plants were opened by European and foreign firms to serve the enlarged market. Both tendencies have been reinforced by important technological innovations (such as robotized production, telematics), new markets (for instance the reunification of Germany and the economic liberalization in Eastern Europe), and institutions and regulations (such as the creation of economic and monetary union and the European economic space). These developments may also bring about new needs for economic activity in terms of locational requirements.

The business strategies that will be adopted to cope with the changes described above will have an impact on mobile investment in Europe. As this investment may be attended by new locational requirements and might therefore lead to relocations, the Commission of the European Communities is anxious to know how economic activity is likely to be redistributed across space in consequence of the economic and locational changes. By creating basic conditions for (sustainable) economic development in both underprivileged and developed regions, the Commission wants to achieve a more balanced distribution of economic activity across space. New locational requirements for mobile investment could offer an opening for policy actions on the part of either the Commission or other policy-makers.

The purpose of the present study is therefore: to analyse the main future trends in the number, type, and regional distribution of mobile investments and the underlying basic factors, and to assess whether policy action is needed and, if so, what type of action would be best suited.

1.2. Approach to the study

To establish the new location factors for mobile investment in Europe, we will follow a pragmatic approach, combining:

(i) information from literature;

(ii) statistical data;

(iii) interviews with key representatives from firms that have recently made a major location decision;

(iv) prospective analysis.

In fact the work falls into four main categories, which will be reported on in separate parts of the present study.

I Defining concepts and developing hypotheses

To set the scene for the present study we must first define basic concepts and develop hypotheses to be tested. In this part, the following aspects will be dealt with:

(i) definition of concepts of mobile investment, mobility and location factors, needed as a proper focus for the study;

(ii) indication of the relevance of mobile investments for regional development;

(iii) development of hypotheses about the future development of mobile investment and the forces that will determine its location.

This part of the study will draw mainly on existing literature, data sources and ideas on the spatial implications of mobility and mobile investment.

II Inventory of facts from the past

The industrial and spatial dynamics of the mobile part of the economic system can be learnt by studying the developments of the 1960s, 1970s and early 1980s. We will split the analysis into three elements:

(i) identification of major societal trends (technology, industrial organization, economic order, etc.) which have influenced the type of mobile investment and its locational orientation;

(ii) indication of the magnitude, composition and regional distribution of mobile jobs;

(iii) inventory of relevant location factors.

This part of the study will be based on a critical appraisal of the results of both theoretical and empirical studies.

III Signals from the present

In recent years a number of developments have taken place that seem to herald a new era, in which trends in the business environment determine changes in the mobility and spatial functioning of firms. In this part we will distinguish the following lines:

(i) identification of major trends in the business environment in the 1980s;

(ii) impact on the mobility of jobs and the regional distribution of mobile investment;

(iii) inventory of location factors that influenced mobile investment in the 1980s through in-depth interviews with location decision-makers of firms and other relevant actors in various economic sectors and regions in Europe;

(iv) check of the results of these interviews with evidence from other recent studies.

This part of the study will combine the results from literature and statistical data with an empirical survey of location factors perceived by decision-makers of (large) firms in Europe.

IV Future developments

The prospective part of the analysis will indicate what trends in technology and economy are likely to occur in the (near) future, and assess their locational impact. The analysis will focus on the following elements:

(i) identification of major trends in the business environment and their impact on the mobility of jobs and locational requirements of mobile investments;

(ii) assessment of the possible influence of new location factors on the regional distribution of economic activities in Europe.

This part of the study will be of a speculative nature. It will use the information of the analyses of past and present, and prospective techniques to draw some lines into the future.

1.3. Organization of the study

The present study has been undertaken by the Netherlands Economic Institute (NEI) in Rotterdam in association with Ernst & Young in London. The study is part of a research programme that has been initiated by the Commission of the European Communities in the framework of the preparation of the document 'Europe 2000'. NEI has been responsible for the general analyses and the overall coordination of the study. Ernst & Young have concentrated on the empirical survey of location factors perceived by location decision-makers of firms in Europe. The main results of that survey are presented in Chapter 8; full documentation on the survey can be found in a separate report.[1]

[1] Ernst & Young. *New location factors in Europe: Survey of companies on location decisions*, November 1991.

Part I

Defining concepts and developing hypotheses

2. Mobile investment and new location factors: setting the scene

2.1. Introduction

In this chapter we will set the scene for the analysis of new location factors for mobile investment in Europe. First, the concepts of mobile investment and mobility will be defined, if possible in entities that are statistically measurable. Next, we will discuss the factors considered by firms when deciding on locations for mobile investment. These factors and their position in the location decision process, determine largely what (type of) regions will be selected. How far mobile investment is relevant to regional development and therefore interesting to policy-makers is the object of the subsequent analysis, which will result in some basic hypotheses on mobile investment and new location factors, to be tested in the present study.

2.2. Mobile investment and mobility

2.2.1. Some definitions

To adjust to changed external conditions, an entrepreneur can choose from several strategies. He may:

(i) create a new establishment;

(ii) expand in existing premises;

(iii) open a branch plant;

(iv) migrate;

(v) merge or take over (part of) another company;

(vi) rationalize existing facilities;

(vii) transfer part of the activities to another establishment within a multiplant company;

(viii) contract or even close down.

These alternatives, which are not mutually exclusive, will have different impacts. Some (such as the creation of a new establishment, the opening of a branch plant, or the migration of the firm) involve discrete decisions that weigh heavily in the firm's cost and risk calculations, whereas expansion and contraction can often be considered marginal decisions involving far less risk. That is why many firms prefer adaptation strategies, adopting movement strategies only if the need is very urgent.

The present study focuses on mobile investment in Europe. In principle, only those alternatives will be considered that give a firm a genuine choice of location, at least on the sub-national level. Mergers, take-overs and the rationalization of existing facilities offer no real location alternative and will therefore be excluded from our definition of mobile investment.

In the literature, the terms 'mobile investment' and 'mobility' are sometimes used to indicate the same kind of phenomenon. In fact mobility has two specific meanings which it is important to distinguish:

(i) Actual movement

The statistical definition of actual movement is: the total observed number of moves; it is the best traceable part of mobile investment as defined above. A variant is the 'actual movement rates': the observed number of moves related to the total number of plants operating in either the donor or the acceptor regions, or in the whole country (see, among others, Smith, 1975). Note that the figures resulting from the application of this concept to data depend largely on the regional scale at which they are studied.

(ii) Potential movement

This concept (also named propensity to move) is used to determine whether the characteristics of a typical plant of a certain sector make it relatively easy to move in the short or medium term (mobile industry) or not (immobile industry). Some relevant aspects are the plant's ties to natural resources, its capital intensity and its ties to suppliers.

The relation between the two concepts of mobility is rather complicated. A high mobility rate (actual movement) depends not only on a high potential mobility, but

also on the strength of external impulses on the plant (see, among others, Klaassen and Molle, 1983).

2.2.2. Mobility determinants

Potential mobility changes through time with technological innovation, type of product, inputs, etc. External influences also vary through time as a result of economic growth, changes in industrial structure (growth sectors), geographical factors (lack of space, congestion), regulation (of the environment, for instance), etc. Changes in industrial structure ensue in turn from changes in technology, industrial organization, etc. So, in the end, the same group of factors tend to influence the stimulus to move and the propensity to move. The most important factors seem to be the following:

(i) **Markets**

(a) Output. In branches operating in a growing market there is a greater chance of, and need for, new firms and plants for mobile investment than in those confronted with contracting markets.
(b) Input. Industries tied to spatially localized inputs — energy or materials or knowledge — tend to be less mobile than industries that are free from such constraints.

(ii) **Technology**

(a) Production technology. An industry characterized by heavy investment in fixed capital with long depreciation terms tends to be less mobile than industries that use relatively little capital, which is moreover written off at a fast rate.
(b) Transport technology. Industries that depend for their transport on deep-water shipping or railways are less mobile than those that use road transport.

(iii) **Changes in regulations**

(a) Protection. Industries that used to operate in protected markets and are now facing competition will be inclined to reconsider their locational choices. They are therefore likely to be more mobile than industries in stable regulatory conditions.
(b) Environment. The change in technology needed to reduce pollution may incite companies to look for new locations.

(iv) **Changes in international competitiveness**

(a) Exchange rates. Industries that are highly dependent on exports to international markets will be sensitive to changes in the exchange rate (some consider that a depreciating home currency gives them a better chance of growth).
(b) Labour costs and productivity. High labour costs may induce firms to look for lower-cost locations, or to invest heavily in labour-saving equipment; the requirements of the new technology may be an inducement to move to new premises.

(v) **Geographical situation**

(a) Lack of space. To growing industries, lack of space and/or high rents for premises are important push factors to move to other locations.
(b) Congestion. The loss of access to certain areas may induce firms to leave for other locations.

2.2.3. Measurement

The principal tool for measuring the mobility of economic activity, specifically of mobile investments, is information on actual moves. There are several ways of obtaining these.

(i) **Establishments**

Unfortunately there are few regular statistics on the births, deaths and migration of firms. Some data can be derived from the registers of establishments kept by some statistical offices.

Some other official and semi-official agencies record some particulars of the lives of plants, often as a sideline to their main work. Examples are Chambers of Commerce, Regional Development Agencies, etc. Some relevant data (if only quantitative indications) can be drawn from those sources. The advantage of such registrations is that they are specific to plants. Their disadvantages are that they

are non-exhaustive, inconsistent as to sources, and confused as to concepts used.

(ii) **Capital**

The move of an establishment implies investment at the new location. In many countries some sort of registration of investment projects is made. Indeed, the tradition of controlled international capital movements has resulted in a registration of direct investment in balance-of-payment statistics. That source has the advantage of being in principle exhaustive, although later investments in the same plants, financed from either retained profits or local loans, are not recorded. A disadvantage, however, is that the figures hide an unknown percentage of portfolio investment (which can be quite high in developed countries).

(iii) **Labour**

Employment data by sector and region are fairly readily available in all countries. They permit a systematic approach to the total phenomenon of structurally changing economic activity by sector of industry and region. Their disadvantage is that they reflect the total net effect of the development of the five categories of industrial development given above, and therefore do not permit the measurement of mobility (in terms of actual rates of movement); however, they give some indication of sectoral differences that coincide with movement.

As no single source permits full coverage of our subject, we will make the best possible use of the sources available.

2.3. New location factors

2.3.1. Relevant categories

In the previous section we have defined mobile investment, which comprises more than just the creation of new and the migration of existing establishments. There is some evidence that firms who opt for a migration differ from those who opt for a new creation (Schmenner, 1982). The latter tend to be smaller, use more up-to-date technology, are more specialized, etc. New independent firms depend more on local provision than branch plants of multiplant companies (Keeble and Wever, 1988). The type of move is therefore relevant to the study of location factors. We have nevertheless chosen to amalgamate the various types of moves into one concept of mobile investment, as from empirical studies it seems that other structural characteristics are far more important for the understanding of location dynamics.

Type of activity is one such distinction. In the course of time economic activity has been split up increasingly into specialized functions. These give rise to specialized branches. Differences in production technology used by the firms in such branches give rise to differences in propensity to movement (the case of steel versus clothing). Empirical studies (see, for example, Fürst, 1971) suggest that the branch has but limited influence on the location factors. That is not true, however, of the functionally specialized activities that have increasingly developed within branches, such as manufacturing plants, R&D facilities (research labs), head offices, distribution centres. Their specific function determines their specificity with respect to, among others things, material inputs, transport, and labour, factors which call for specific locational behaviour.

The spatial level is the other relevant distinction. Indeed, the location factors for a new or relocated plant or office differ with the spatial level considered. In the framework of the present study we will concentrate on the following three levels:

(i) Intercontinental: foreign direct investments in Europe, especially of US and Japanese companies;

(ii) International: intra-EC direct investments, in general by European companies;

(iii) Interregional: intra-national mobility of economic activities.

A fourth level of spatial analysis, namely, the intra-metropolitan level, will not be considered. The moves on this level are mostly of the suburbanization type.

They are triggered off by the inadequacy of existing premises. The choice of new premises depends on such specific location factors as an adequate building, a prestigious neighbourhood, road and public-transport connections, etc. For the present study we will disregard these moves because they do not affect the interregional distribution of economic activity.

2.3.2. Location determinants

There is a large body of literature on industrial movement. Some of this highlights elements in the decision-making process of a firm. In the more theoretically oriented studies the process is fairly straightforward: a company realizes that its present facilities are not adequate for carying out its plans for the future; it decides to open up new facilities by moving or otherwise; it determines its needs, starts a search for locations that satisfy them, and finally selects the best alternative. Many of the empirical studies show, however, that the decision-making process is not quite so rational, and that decisions are often taken on the strength of limited information and a priori limited options (see, among others, Pred, 1967, Webber, 1972, Toyne, 1974). As we are interested in the real motives for selecting certain locations, we will focus on the final stage of the chain, the actual selection of a location, and disregard the other aspects. Therefore, the factors that in practice determine the location of firms can best be derived from empirical studies. Many of these studies are of the enquiry type, in which entrepreneurs are asked why they have chosen a specific location for their activity. They differ in coverage of sectors, geographical horizon, policy context, etc. The differences are likely to influence the ranking of factors by their importance.

Already in the 1950s, Greenhut (1956) identified three classes of location factors: demand, cost and purely personal. Demand factors include those variables that influence the character of demand: not only the place where potential buyers are located, but the nature of demand for the product and the way it relates to cost, the impact of competitors, and the customers' need for personal contact or specific services. Cost factors can be divided into several subgroups. The first covers the cost of buying and running the factory itself, including capital costs. The second includes the costs of staff, and the living and community conditions, which affect the availability, happiness and productivity of the workforce. The last groups of cost factors are material costs and transport. Greenhut's empirical research led him, however, to recognize that many location decisions did not fit conveniently in his economic categories. In fact, he understood the 'psychic income', or non-monetary satisfaction of workers. Numerous surveys have emphasized the importance of such considerations, and the existence of an attractive environment or climate may be decisive in the choice between two locations with similar attributes (see, among others, Spooner, 1974).

In the present study we will analyse how the importance of such factors changes through time, across space and by type of activity:

(i) through time as a result of changes in technology, in public policy, etc.;

(ii) across space because the problem is differently defined at different places: a firm that moves to new premises nearby can maintain its present employees and input-output relations and will indicate only premises-related factors as reasons to move;

(iii) by type of activity because production, research, management and other activities have different requirements.

2.3.3. Measurement

Measuring the relevance of location factors for specific economic activities implies the following considerations:

(i) Mobile investment

How mobile investment can be measured has been discussed in the previous section. Let us add here that the amalgamation of creation, branch openings and migration facilitates the task of measuring. As a matter of fact, the registrars in the region that will host the new investment will often find it

difficult to establish whether a new establishment has migrated from another region, is a branch plant accommodating part of the production of another establishment or a brand new establishment.

(ii) Space and type

The function of the unit of mobile investment is easy to define as long as we limit ourselves to a few basic categories, like manufacturing, offices, etc. In most countries these correspond to planning concepts (for instance for industrial areas, office parks, etc.).

(iii) Location factors

In most enquiries, decision-makers are asked to indicate the importance of the factors that have influenced their location decision. This results in rather qualitative answers. For one thing, the various factors are often poorly defined, especially those operating at different spatial levels. For another, the weights attached to them produce either a ranking or a broad categorization of the type 'very important, important, relevant, or not relevant'.

2.4. Mobile investment and regional development

2.4.1. Types of effect

In the course of the past decades, many regions struggling with restructuring or economic backwardness have looked upon incoming mobile investment (IMI) as the solution to their problems. IMI was thought to have many beneficial effects that would outweigh the negative ones. From the rather inadequate literature the following types of effect can be distilled (Dicken, 1986):

(i) Positive: the easing of the unemployment problem, the rejuvenation of the industrial structure, the stimulus for further attraction of IMI, the spur given by technologically advanced firms to local firms, and indirect employment effects (interindustrial and income effects).

(ii) Negative: IMI will crowd out existing activity. It may do so directly by competing for local markets or indirectly by competing for scarce inputs like labour, land and raw materials, pushing up factor prices. Incoming investment in the shape of branch plants is often the spill-over of activities in other areas; as soon as the activities slow down there, there is a high risk of closing down these branch plants, causing write-offs of physical and human capital. Finally the dependency on external decision centres jeopardizes the capacity of the region to organize its own economic activity ('branch-plant syndrome').

The overall effect will depend on the nature of the foreign-controlled plant as well as the characteristics of the host economy.

With respect to the nature of the foreign-controlled plant, relevant elements are the method of entry, the functions performed by the plant and its operational attributes:

(i) method of entry. A completely new 'greenfield' plant is generally regarded with favour as it adds to the host country's stock of productive capacity. Acquisition is more ambiguous: if the management and creative functions are transferred to the foreign firm, the impact will be negative; if the transaction merely transfers ownership, it may be neutral; a new input of capital, know-how or market power by the parent company might strengthen the position of the plant.

(ii) function. Foreign branch plants tend to be established for one of three reasons: to exploit a localized material resource, to serve the host market itself by substituting for imports, or to use the host-country location as a platform for exporting either finished products or components. The spin-off effect depends very much on the kinds of function that non-local branch plants perform in different regions (Del Monte and Luzenberger, 1989). A plant whose activities are limited to the production of standardized products will have only a limited impact, because such a plant mostly has few regional

linkages and is relatively footloose. An establishment that is quasi-autonomous in its operations, with world-wide innovation, manufacturing and marketing, tends to have a much greater regional impact.

Several studies show that multinationals have a dynamic effect on the local economy (see, e.g. Hakanson, 1979, Young *et al.*, 1988). First, the nature of their activities is changing through time (starting with sales functions or standardized production and gradually developing into technologically advanced production and other company functions later on). Second, multinationals encourage the development of ancillary services and influence the location decisions of components' suppliers. Third, they alter the indigenous capabilities of the regional economy (for example, by encouraging labour-market specialization and introducing new technologies and management techniques). Finally, they have a 'demonstration effect' on competing multinationals who are deciding on locations for their own investment.

(iii) operational attributes, such as type of industry, technology and employment, scale of operations and the extent to which the plant is integrated into the parent company. Technology-intensive operations are much less likely to have a feasible domestic alternative, but their employment impact may be limited because they are mostly also capital-intensive. They are also apt to be skill-intensive, creating a small number of highly remunerated jobs. On the other hand, labour-intensive production-type assembly or fabricating operations may displace local alternatives but could also create a large number of jobs in the host countries. Branch plants that are operating in growing markets, produce on an efficient scale, and/or have the capacity to innovate their products, will be less vulnerable than plants producing highly standardized products in a less efficient manner (Buckley, 1987).

It is not only the nature of the foreign plant that is important: the nature and the characteristics of the host economy itself and the public policies pursued also need to be taken into account. Most foreign direct investment originates from highly industrialized and affluent market economies. As far as the bulk of such activity also flows to similarly developed economies, the dissonance between foreign-controlled plant and the host economy is likely to be very small. But for less industrialized host countries and regions with more or less underdeveloped industrial infrastructures and different socio-cultural characteristics, this dissonance could be considerable: in that case, foreign plants may operate like 'islands' within the host economy with fairly limited regional links and hardly any spin-off.

Public policies could help to reduce the dissonance a great deal by attracting activities closely linked to the local economy and labour market. Other essential conditions are that new projects entail significant new training for the work-force, introduce new technology or management approaches into the region, and comprise some degree of R&D or higher management functions. Such results cannot be realized without active and consistent policy measures directed to the foreign-controlled plant as well as the local economy. While there are some examples of successful integration of mobile investment in the economy of lagging regions in Europe, the next section will also present cases of failure.

2.4.2. Some empirical results

Recently Buckley and Artisien (1988) examined the employment effects of multinationals in Greece, Portugal and Spain. In each of these countries, US and EC firms are the main investors. More than half of all foreign investment is in manufacturing. Overall, investment by multinationals has contributed much to the industrial development of these three countries. For instance in Spain, foreign companies employ approximately 43% of Spain's industrial work-force; in key sectors like chemicals, electrical machinery and motor vehicles, employment in foreign-controlled companies accounts for over three-quarters of total employment. The greater part of foreign investment is located in the best-developed regions in these countries (Lisboa region, Catalunia, Madrid, Athens region). Apart from direct employment effects, multinationals also play a great part in the

training of the local labour force. Moreover, there are some interesting examples of the creation of R&D centres and cooperation with local firms (Vaughan-Whitehead, 1991).

The evolution of a high-tech electronic area in Scotland, Silicon Glen, was initially stimulated by the arrival of US multinationals. The European market, Scottish labour supply, government policies and agencies, advanced factories and university resources encouraged a steady trend in the location of US electronics plants in Scotland. Increasing competition and product complexity forced the creation and evolution of R&D or engineering activities at the subsidiaries. Technical manpower was largely drawn from local engineering. Several Scottish engineers exploited the skills gained in working for American organizations and the opportunities existing in Silicon Glen by forming indigenous electronics firms. Therefore, the resources necessary for high-technology manufacturing and R&D operations were available in Scotland's industrial belt. As a result, American multinationals followed by European and Japanese companies developed a large concentration of high-technology companies (Haug, 1986). This new concentration offers some compensation for the loss of jobs and the increased dependency on foreign firms in existing, more traditional industries (notably food and shipbuilding) in Scotland (see, e.g. Smith, 1975).

A well-known criticism of branch-plants concerns the competition that local firms must sustain in the labour market. In Southern Italy, the location of large branch plants has led to an increase in wages and the movement of a specialized labour force from local to non-local plants. Moreover the location of branch plants has also had other effects on the local firms' costs: an increase of external diseconomies (increasing housing rental, traffic congestion, etc.) and a decreasing share of public resources being used to build infrastructure for local firms. More and more public resources are used to fulfil the branch plants' need for infrastructure, services and financial incentives. Non-local firms can also have a negative impact on local firms through mechanisms working on the demand side. This happens when branch plants produce for the local market. In the 1960s and 1970s local firms in Southern Italy were indeed expelled from the market by the more efficient non-local plants located in the Mezzogiorno (Del Monte and Luzenberger, 1989). Del Monte and Luzenberger's study indicated, however, that the move of large branch plants, attracted by generous financial incentives, into Southern Italy had a positive impact on the birth of new local firms.

Another example of foreign direct investment fostering economic growth is Sophia Antipolis in France. Through deliberate policy actions, high-tech activities of US multinationals were attracted, which were then followed by other (French) multinationals. Although there has been a large increase in direct employment (11 000 employees in 1991, of whom nearly 7 000 involved in technological activities), the linkages with the local economy are relatively weak. Innovative networks are marginal in Sophia Antipolis, especially in relation to the volume of local activities and employment. The project has failed to strengthen local innovation through local partnerships and learning processes (Longhi and Quere, 1991). Nevertheless, the Provence-Alpes-Côte d'Azur region has been transformed, mostly thanks to initiatives from public policy, from a region heavily dependent on tourism into a dynamic centre for high-technology industries.

The Irish economy has traditionally been dominated by the agricultural sector, but this alone could never sustain the fast-expanding population. To attract new foreign industries became therefore a central part of government strategy in Ireland. One sector on which this strategy focused was the electronics sector. Twenty years ago the Irish electronics industry employed fewer than 5 000 people and accounted for about one-twentieth of total industrial exports. Now more than 250 firms — mostly foreign-controlled — employ 27 000 people, and electronic exports are worth more than IRL 4 000 million a year, nearly three-tenths of the total value of exports (*Financial Times*, 22 May 1991). Initially, Ireland functioned as an assembly base for electronic multinationals, but it is now coming close to having a fully integrated electronics industry. Because of the generous offer of financial incentives (tax reliefs, etc.),

most of the firms attracted to Ireland were very capital-intensive and vertically integrated. Thus, they created few jobs and contributed very little to the development of the national and regional economy in return for generous subsidies (see Shepley, 1991). Moreover there are misgivings about the future. Now that many multinationals are envisaging difficult times, the local economy is suffering. Plants have been closed down and workers laid off. Some multinationals are delaying investment plans. With multinationals reconsidering their plans, the fear is expressed that Ireland has become over-dependent on the foreign-controlled sector. Meanwhile, Irish companies are not investing enough and are failing to respond to the challenges of a new Europe (*Financial Times*, 22 May 1991).

Foreign companies have often been accused of being relatively footloose and of creating a branch-plant economy. For example Clwyd in Wales, after being hit by the decline in such major industries as coal, steel and textiles, managed in the 1980s to rebuild its economy, strongly helped by a flow of inward investment. However, a new recession has set in. Closures of such foreign companies as United Engineering Steels and Laura Ashley may be the most eye-catching but closures are in fact happening all over the county. The Welsh Development Agency admits that several small companies have not renewed leases on their premises or have quietly closed their doors (*Financial Times*, 13 November 1990).

The case studies cited show that the attraction of mobile investment can have considerable positive effects in peripheral regions, doing much to strengthen the economic structure of these traditionally agricultural or old industrial areas. They also show that such positive effects depend largely on the pursuit of active and consistent policies by regional governments. To attract activities that have close linkages with the local economy and labour market is essential in that respect, as is the fostering of training and the introduction of high-quality jobs. Less deliberate government actions have failed to produce benefits that outreach the drawbacks. As a result, policies setting out to attract large-scale mobile investment to peripheral and/or depressed areas have come under growing criticism in recent years.

2.5. Hypotheses

From the information presented in the previous sections, some general hypotheses emerge that will be tested in this study. The hypotheses refer to mobile investments on the one hand and to location factors on the other.

Mobile investment

1. Modern technology and organization principles pervade an increasing number of economic activities. Their application increases the propensity to move jobs. With stronger external impulses they might increase the number of moves.
2. Investment tends to be more mobile in periods of economic growth than in periods of slack. In the long cycle, the period of slack seems to be over. New attention of (regional) policy-makers for mobile investment is therefore warranted.
3. Within the Triad, the EC is a dynamic and strong market. To be present in that market, foreign firms will invest directly, for instance in new facilities in sectors with growth perspectives.
4. The growth of competition due to the completion of the internal EC market and the increased openness to third-country producers induces firms to rationalize existing operations. Restructuring will lead to more specialization, larger production units and also relocations that are optimum in the new circumstances.
5. The impact of mobile investment on the regional economy will be greater with the degree of local autonomy, the availability of advanced functions and the intensity of regional linkages.

Location factors

6. In the course of time, the relative weight of location factors will change under the influence of changes in technology, demand, regulation, etc. As a result of higher demands from consumers and higher requirements of new technologies, in the near future knowledge-based location factors will become much more important than traditional, mostly cost-related ones.

7. Human capital is the cornerstone of the modern production organization. The quality of labour has become a dominant location factor for an increasing number of firms. Because highly qualified employees make high demands on the quality of life and the environment, an excellent living environment is a condition for the availability of high-class labour.
8. Despite the tendency of markets to span the globe, such factors as specific demands on major and/or niche markets and the need for just-in-time delivery continue to make proximity and access to clients and suppliers important location factors.
9. The location decision of firms is based on a variety of factors. To be at all attractive for mobile investment, nations and regions need to attain a minimum standard of each factor. Taking account of rising standards, firms make a kind of trade-off between factors to arrive at the selected location.
10. Although in principle every type of region has qualities to attract and space to accommodate new mobile investment, yet peripheral regions are hard put to it to meet rising standards of location for various types of economic activity.

In the next chapters evidence will be gathered to test these hypotheses. The tests will be based on either quantitative or qualitative information, derived from general analyses on the one hand and more specific ones (empirical surveys, for instance) on the other.

Part II

Facts from the past

3. Trends in the 1960s, 1970s and early 1980s

3.1. Introduction

In the post-war period, the aspect of Europe has altered drastically as a result of major changes in technology, economic structure, market demand, organization of industry and the regulatory environment. These changes have resulted in economic growth and enabled firms and people to broaden their scope considerably. That in turn has had its impact on mobile investment and the factors determining its location.

Before proceeding to analyse the magnitude, type, and location factors of mobile investments in Europe in the 1960s, 1970s and early 1980s, we will examine the underlying trends.

3.2. Towards a post-industrial society

After the Second World War, the economic structure in Europe was dominated by industrial activities. The share of industry in total employment increased slowly all through the 1950-70 period. In 1960, 43% of the total work-force in the EC (113 million people) was employed in mining, manufacturing, construction, compared to 21% in agriculture and 36% in services (of which 20% in market services) (Molle *et al.*, 1980).

In the 1960s and up to the mid-1970s, the principal industrial branches were basic chemicals, transport equipment (in particular motor vehicles) and metal industries. More traditional branches like textiles and clothing, shoes, wood and furniture, and food found their shares in total European employment already dropping at that time. The decrease of employment in the agricultural sector continued, whereas total production increased considerably as a result of higher labour productivity.

The strong economic growth since the Second World War came to an end in the mid-1970s. Rigidities in production and production factors and changing market conditions caused inflation, loss of confidence and economic recession in the second part of the 1970s and the beginning of the 1980s. This led to heavy restructuring of industrial activities and thus to a serious increase in unemployment all over Europe.

After 1970, the service sector became progressively more important as the economies of the various countries in Europe developed and levels of real income increased. The service sector grew fast as the need for services increased with income and leisure time; the development of the welfare state brought about a fast-increasing employment in social services (health, education, etc.). As industrial production became more complex, there was also a growing demand for service-type activities in industry. In the 1960s and 1970s the growth of service activities led to the belief that Europe was gradually developing into a post-industrial society.

3.3. Technology

In the course of time, the technology of production, energy and transport has changed considerably. In the nineteenth century, such technological breakthroughs as mechanization (production), cooking of coal, the steam engine (energy), and the railroads (transport) gave birth to a new set of economic activities which had to find new locations. In the 1960s and 1970s, similar technological revolutions took place.

In production, the dominant trends were towards more specialized tasks and increased mechanization. Many activities that used to belong to the realm of handicraft became industrialized. The use of assembly lines was introduced to produce great quantities of identical products, skilled workers being replaced with semi-skilled operatives each performing a limited task. In the so-called 'Fordist' organization of production, in which tasks were split up into many repetitive simple manipulations (standardized production), unskilled and semi-skilled labour could be used to keep labour cost down. The typical factory used process-flow and assembly-line methods and had a hierarchical organization. The tremendous market fragmentation, volatility and consumer sovereignty that developed in the 1970s

challenged the viability of such mass-production systems.

The tendency towards economies of scale prevailed mainly in manufacturing. As a result of strongly fragmented national markets and the development of welfare policies, other economic sectors were generally small-scale and strongly oriented to national or even regional markets. In principle, the technologies for operating more efficiently were already available, but organizational procedures prohibited their use, especially in the service sector.

In energy technology, the predominant source for industrial purposes was coal. It maintained its position from the start of the industrial revolution up to the 1960s. Since then, the use of oil has taken over for many purposes, such as heating and firing. For the purpose of powering machines and appliances, both coal and oil were soon replaced with electric energy, which allowed much more freedom of location.

In transport technology as well, the 1960s and 1970s saw a major breakthrough. The dominant mode of transport since the industrial revolution had been the railroad. Road transport started to gain ground on short-distance jobs and on jobs for which speed was essential. However, with the development of the major trunk-road system in most European countries and of more specialized vehicles, lorry transport increased at the expense of rail.

Other innovations in transport created additional opportunities to overcome distances, for instance between supply and demand. Progress in aircraft facilities made air transport quicker and much cheaper. Moreover, innovations in telecommunications made it possible to communicate without physical presence. Each of these innovations enabled firms to move away from existing concentrations of economic activity.

3.4. Internationalization and multinationalization

In the course of the nineteenth and the first quarter of the twentieth century, protectionist measures were eased and sometimes even largely abolished. This happened under pressure from industrialists who demanded large markets for their activities to profit from economies of scale. In times of economic downturn, however, (the great recession of the 1930s), measures were reintroduced to protect domestic markets.

In the post-war period, the number and intensity of protective measures in international trade and capital movements have decreased considerably. In the 1950s and 1960s, that world-wide liberalization was accentuated by regional integration in Europe. The creation of the European common market, and its subsequent enlargement with the United Kingdom, Ireland and Denmark, has established a large zone of free trade. Moreover, the advantage of free capital movements for foreign direct investment was quickly realized. However, this common market was far from perfect or complete, and for many submarkets national regulations and protection measurements have persisted (Molle, 1990).

Since 1960, the EC has contributed to the growth of manufacturing industry by opening new markets and allowing scale economies and increased specialization. Internationalization and European integration gave rise to growing international competition and stimulated the enlargement of scale of production and the development of multilocational/multinational companies. Although the small single-plant enterprise is still the most common type of firm, it is no longer the most important. Measured in terms of employment or financial resources, purchases of materials or sales of products, small companies are insignificant besides the comparatively small number of very large, very powerful business corporations.

Many single-plant firms have followed a growth strategy, passing through the stages of further penetration of the national market, exports through overseas sales agents, and establishment of foreign subsidiaries (Hakanson, 1979). In comparison to the single-plant company, the multiplant firm (MPF) by its structure has a better mastering of space through the separation of functions in different units, each following its own locational logic. The new production and communication technologies have permitted the spatial segmentation of

discrete production, distribution, research and management units, individual localities no longer being the seat of complete companies, but only of segments.

In the mid-1970s the long upswing came to an end. Many industries fell into a decline and many MPFs lost the impetus for movement. Many preferred a strategy of contraction on existing sites to the opening of new branches. Firms that followed a strategy of cost-cutting no longer relocated their branch plants in the low-labour-cost areas of the EC, but went to Third-World countries where the relation between labour cost and productivity was even more favourable for highly standardized activities.

3.5. Emergence of quality-of-life considerations

The post-war era has represented the upturn and top of the long Kondratieff cycle. Persistent economic growth has brought about a great increase in wealth. Income taxation and social security were mechanisms used to redistribute this wealth.

Increased wealth has changed the demands for products. More attention is given to luxury goods, less to basic needs like food. It also engendered new demands, like private transport by car, and attendant services. It has freed people to some extent in their choice of a place of residence. Income is also increasingly spent on personal services. This has implied a shift of demand from goods requiring location-based resources for their production to goods and services that have more value-added per unit of production.

Prosperity has also changed people's lifestyle. Working hours were greatly reduced, giving rise to the growth of leisure activities and tourism. The average level of education has been stepped up, which led to higher demands on the quality of the job and the living environment. Concern for the environment was quick to develop into a major policy issue, obliging firms to take the environment into account when making their production, distribution and location decisions.

3.6. Conclusions

In the 1960s, 1970s and early 1980s, profound changes took place in Europe as a result of major shifts in technology, economic structure, market demand, organization of industry and the regulatory environment. These shifts have created economic growth and enabled firms and people to broaden their scope considerably. Although this has led to widespread multinationalization or internationalization, economic activities were largely oriented at geographically highly fragmented markets.

4. Mobile investment in the 1960s, 1970s and early 1980s

4.1. Introduction

The previous chapter has revealed that as a result of several economic and technological changes, mobile investment has become an increasingly important feature of the post-war period.

In this chapter we will focus on the patterns of mobile economic activity. From relevant empirical investigations we will derive the evolution of the phenomenon through the 1960s, 1970s and early 1980s, its total magnitude and its functional and spatial structures. The material will be organized according to economic functions, separate sections being devoted to manufacturing, headquarters, R&D, distribution and services. As far as possible, we will in each section consider mobile investment on three spatial levels: international, intra-European and interregional.

4.2. Manufacturing

4.2.1. Foreign direct investment

US companies

Traditionally, the US is the greatest investor in the EC. In the 1970s, the US accounted for about half of the world's total direct investment (DI) in the EC. The flow of USDIE (US direct investment in Europe) was almost as great as the total flows of DI among EC countries in that period (OECD, 1987; Eurostat, various issues of balance of payments statistics).

Table 4.1 shows that the US invested for more than USD 211 000 million in the world in the post-war period, of which nearly 40% was directed to the EC. The most important host countries in the EC were the UK and Germany. France and the Netherlands also received a considerable amount of investments until 1980, followed by Belgium and Italy.

Table 4.1. Accumulated US foreign direct investments, in 1980, 1980-85, in 1985 in USD 1 000 million

	1980		▲ 1980-85	1985	
	million USD	%	million USD	million USD	%
Canada	44 987	21	1 457	46 435	20
Europe, of which:	96 539	46	10 222	106 761	47
EC (12), of which:	80 686	38	4 198	84 884	37
Belgium	6 259	3	- 1 154	5 105	2.2
Denmark	1 266	0.6	0 016	1 282	0.6
Germany	15 418	7	1 328	16 746	7.4
Greece	347	0.2	- 125	222	0.1
Spain	2 678	1.3	- 80	2 598	1.0
France	9 348	4.4	- 1513	7 835	3.4
Ireland	2 319	1	1 429	3 748	1.6
Italy	5 399	2.6	245	5 644	2.5
Luxembourg	652	0.3	- 191	461	0.2
Netherlands	8 138	3.8	- 1 074	7 064	3.0
Portugal	257	0.1	- 41	216	0.1
United Kingdom	28 605	13.5	5 358	33 963	15.0
Other Europe	15 855	7	6 022	21 877	10.0
Japan	6 243	3	2 852	9 095	4
Oceania	10 590	5	- 131	10 459	5
Developing countries	53 277	25	1 197	54 474	24
Total	211 627	100	15 597	227 224	100

Source: Krägenau, 1987.

At the beginning of the 1980s there was a slight decrease of the relative share of the EC in the US foreign direct investment, as a result of a large amount of disinvestments in several countries (Table 4.1). Japanese firms invested in the beginning of the 1980s almost the same amount as in the previous 30 years between 1950 and 1980 (Table 4.3).

Table 4.2 gives more information about the sectoral distribution of the total stock of US foreign direct investments in the EC (12) in 1980. More than 50 % was directed to manufacturing, of which the most important sectors were machinery, chemicals and other manufacturing.

Table 4.2. Cumulative sectoral distribution of US foreign direct investment in the EC (12), in 1980, in USD 1 000 million, by sector

	1980		1985	
	Stock (USD 1 000 million)	Share (%)	Stock (USD 1 000 million)	Share (%)
Manufacturing, of which:	43 354	54	43 313	51
Food		5		5
Chemicals and allied products		12		10
Primary and fabricated metals		3		2
Machinery		13		13
Electric and electronic equipment		4		4
Transportation		7		5
Other manufacturing		10		12
Non-manufacturing, of which:	37 332	46	41 571	49
Petroleum		22		20
Trade		9		8
Finance		12		11
Banking		3		6
Services		—		4
Total	80 686	100	84 884	100

Source: Krägenau, 1987.

Many authors have tried to assess the importance of market factors for this DI flow, mostly by highlighting the effect which the creation of the EC had on USDIE. Three approaches are relevant here:

(i) differential development of USDI in the UK and in the EC member countries. In the 1950-58 period (pre-EC) the growth rate of USDI was about the same in both areas. Between 1958 and 1973 (UK not yet a member of EC), the UK growth rate was about half that of the EC. After 1973 (UK accession to EC) the two growth rates became equal again (Whichart, 1981).

(ii) econometric analyses: Schmitz and Bieri (1972) concluded that the formation of the EC had significantly affected the pattern of US direct investment and trade of goods in a manner consistent with the hypothesis of tariff discrimination;

(iii) enquiries. The international moves to the EC were 'in some sense associated with the creation or the existence of the common market' (Molle and Klaasen, 1983, p. 409).

Japanese companies

Only since the early 1960s have trade and investment relations between Japan and Europe been largely liberalized. The volume of Japanese FDI in Europe (JDIE) was rather small. Table 4.3 shows that between the end of the Second World War and 1979, Japanese firms invested

nearly USD 4 000 million in Europe. Halfway through the 1970s, only one-tenth of total JDIE was in manufacturing (Table 4.4), which is fairly low compared to the USDIE in maufacturing (three-fifths, see Table 4.2). Most Japanese investments were made in mining (Middle East), other services, insurance and finance, and commerce.

The spatial investment pattern of Japanese companies was somewhat comparable to the US pattern. Table 4.3 shows that the UK was by far the dominant host country, with Germany, France and the Benelux as runners-up at some distance.

Table 4.3. Accumulated Japanese foreign direct investment, 1951-80, 1980-84, and 1951-84 (March), in USD 1 000 million

	1951-80		1980-84		1951-84	
	mio USD	%	mio USD	%	mio USD	%
North America	8 202	25.9	9 724	32.9	17 926	29.3
Europe	3 885	12.3	3 251	11.0	7 136	11.6
United Kingdom	1 824	5.8	624	2.1	2 448	4.0
West Germany	387	1.2	538	1.8	925	1.5
France	301	0.9	331	1.1	634	1.0
Netherlands	257	0.8	365	1.2	622	1.0
Belgium	224	0.7	364	1.2	588	1.0
Other	892	2.8	1 027	3.5	1 919	3.1
Oceania	2 077	6.6	1 483	6.0	3 560	5.8
Developing countries	17 531	55.3	15 123	51.1	32 654	53.3
Latin America	5 580	17.6	5 150	17.4	10 730	17.5
Asia	8 544	27.0	7 855	26.6	16 399	26.8
Other	3 4077	10.7	2 118	7.2	5 525	9.0
All countries	31 695	100.0	29 581	100.0	61 276	100.0

Source: Dunning, 1986.

Table 4.4. Cumulative sectoral distribution of Japanese direct investment in Western Europe (% of total), 1976 and 1984

	Western Europe as at 31. 3. 76	Western Europe as at 31. 3. 84
Foodstuffs	1.3	0.8
Textiles	0.7	2.4
Wood and pulp	0.0	0.0
Chemicals	2.1	2.8
Metals	1.4	2.9
Industrial machinery	2.3	2.3
Electrical machinery	1.0	4.1
Transport equipment	0.2	2.1
Other manufacturing	1.2	2.7
Total manufacturing	**10.1**	**20.0**
Agriculture and forestry	0.0	0.0
Fishery	0.1	0.0
Mining	33.8[a]	12.0[a]
Construction	0.2	0.6
Commerce	10.3	23.3
Insurance and finance	17.0	24.1
Other services	26.4	16.7
Total non-manufacturing	**87.8**	**76.7**
Foreign branches	2.0	3.3
Total	**100.0**	**100.0**

[a] Mostly investment in the Middle East through the UK.
Source: Dunning, 1986.

The figures in Table 4.3 represented total direct-investment volumes and do not reveal how much was invested in greenfield manufacturing establishments. The annual Jetro-report indicates every Japanese company's year of establishment in Europe and in which country. Table 4.5 shows that, so far, 348 Japanese greenfield investments have been realized in the EC (12). In the period 1960-72 the number of Japanese establishments in the EC was limited: only 35 companies located in the EC (6). Strikingly, the most important host countries were the then Federal Republic of Germany (FRG), Spain and Belgium. The UK and France were of less importance in number of plants but not in total amount of investment. After 1973, when the UK, Ireland and Denmark joined the EC, the number of Japanese greenfield investments increased considerably. Between 1973 and 1979, 49 Japanese companies located in the EC (9). The increase of investments in the UK was remarkable: together with Germany it received the most Japanese companies. In the 1980s, especially after 1985, there was a further increase of the total number of Japanese firms establishing in Europe for the first time. A large part of them located in the UK, followed by France and Germany.

Table 4.5 indicates that in southern European countries (Italy, Spain, Portugal and Greece) Japanese firms tend to invest in joint ventures and local participations than in greenfield projects. In North-West Europe, by contrast, their expansion is mainly achieved through greenfield investments.

Table 4.5. Japanese manufacturing companies in the EC: number of greenfield investments and joint ventures/local participations (in brackets) per period

	< 1960		1960-72		1973-79		1980-84		1985-91		Total	
Belgium	—		5	(2)	6	(1)	—	(2)	7	(2)	18	(7)
Denmark	—		—		—		1		2		3	
Germany	1		7	(3)	12	(6)	10	(7)	31	(8)	61	(24)
Greece	—		—	(1)	1		1		—		2	(1)
Spain	2	(3)	7	(1)	3	(5)	2	(5)	15	(9)	29	(23)
France	1	(2)	4	(1)	6	(3)	12	(4)	42	(8)	65	(18)
Ireland	—	(1)	1		2	(3)	2	(1)	8	(1)	13	(6)
Italy	—		3		1	(2)	2	(3)	8	(7)	14	(12)
Luxembourg	—		—		—		—	(1)	1		1	(1)
Netherlands	—	(1)	2		6	(3)	6		9	(3)	23	(7)
Portugal	—	(1)	1	(2)	—	(2)	1		4	(1)	6	(6)
UK	2		4		12	(1)	23	(3)	72	(14)	113	(18)
Total	6	(8)	34	(10)	49	(26)	60	(26)	199	(53)	348	(123)

Source: Jetro, 1990.

4.2.2. Intra-European direct investment

Table 4.6 presents the totals of real net direct investments flows between 1975 and 1979. Total intra-EC direct investment flows in that period amounted to ECU 31 800 million at 1985 prices, an annual average of ECU 6400 million. The Netherlands showed the highest outgoing flow of investment capital to other EC countries: ECU 7000 million, of which the Federal Republic of Germany, France, Belgium/Luxembourg and the United Kingdom were the most important destinations.

France recorded the highest incoming flow of investment capital. Other EC countries invested ECU 7.7 million in total. The largest investor in France was the Federal Republic of Germany, at ECU 2200 million. The Netherlands, Belgium/Luxembourg and the United Kingdom were also important countries of origin.

Table 4.6. Accumulated net direct investment flows 1975-79, in ECU 1 000 million (1985 prices)

from / to	FRG	F	I	NL	B/L	UK	DK	IRL	E	P	GR	EC
FR Germany	—	2.2	0.2	0.0	1.4	1.2	0.2	0.2	0.7	0.1	0.0	6.3
France	1.0	—	0.2	0.2	0.8	1.2	0.0	0.0	1.2	0.2	0.0	4.8
Italy	0.0	0.6	—	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.9
Netherlands	1.6	1.4	0.2	—	1.6	1.4	0.0	0.2	0.6	0.0	-0.1	7.0
Belgium / Luxembourg	1.2	1.6	2.0	0.8	—	0.0	0.0	0.0	0.5	0.0	0.0	6.2
United Kingdom	1.2	1.6	0.0	0.8	0.8	—	0.3	0.7	0.2	0.0	0.2	5.8
Denmark	0.2	0.0	0.0	0.0	0.0	0.2	—	0.0	0.0	0.0	0.0	0.4
Ireland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	0.0	0.0
Spain	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	—	0.2	0.0	0.4
Portugal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0
Greece	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0
EC	5.3	7.7	2.6	1.9	4.7	4.0	0.5	1.1	3.2	0.5	0.3	31.8

Source: Morsink and Molle, 1991.

From Table 4.6. it also becomes clear that direct-investment flows were concentrated in the core countries of the Community: the Federal Republic of Germany, France, the Netherlands, Belgium and Luxembourg and the United Kingdom. They account for ECU 25 600 million of the ECU 32 000 million, that is, about four-fifths. The non-core countries mainly received direct investments from the core countries.

4.2.3. Interregional moves

The pattern of industrial interregional mobility in Europe has been the object of quite a few empirical studies, which are briefly reviewed in Annex I. Mobility is defined here as the rate of actual movement.

The review in the annex shows that in the 1950s, 1960s and 1970s the most mobile sectors on the interregional level in some EC countries were:

(i) clothing (and footwear);
(ii) mechanical and electric engineering;
(iii) chemicals;
(iv) metals.

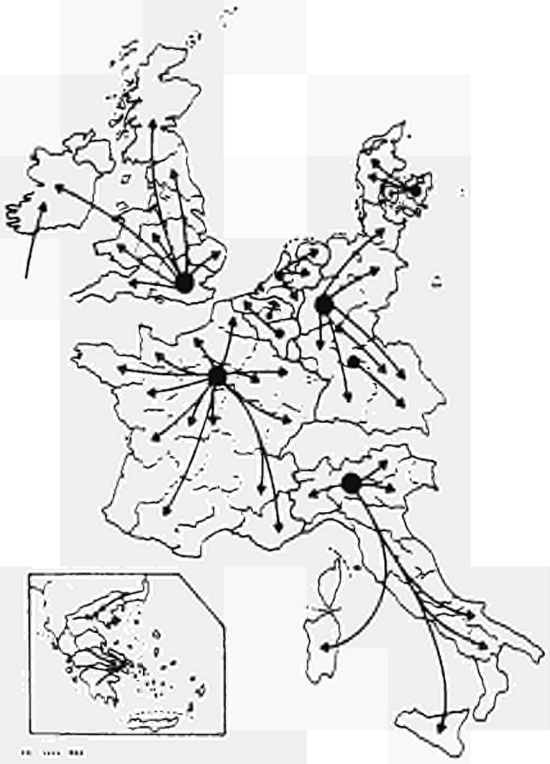
The least mobile industries appeared to be:

(i) shipbuilding;
(ii) paper;
(iii) rubber.

As remarked in Chapter 2, the observed pattern of mobility is the result of external pressures on a sector and its propensity to move. For clothing, the propensity to move was very high (equipment is easy to transport, labour is easy to train) and the impulses to move were very strong as well (shortage and high cost of labour in central areas). The high mobility rank of the following two sectors (engineering and chemicals) is due not so much to a high propensity to move as to strong impulses; indeed both were clearly growth sectors at the time and many new plants were opened. The low mobility of the second group of sectors is due both to a low propensity to move and to moderate external impulses.

The geographical pattern of movement of manufacturing industry shows in all EC countries a flow from central regions to intermediate and peripheral ones (Figure 4.1). The model seems to have governed the interregional movement of industry in all countries of the EC right through from 1955 to 1975. Indeed, a review of relevant studies (see Klaasen and Molle, 1983) indicates that most new openings of manufacturing establishments were made at locations where low-cost labour and ample space for expansion were available.

Figure 4.1.
Interregional industrial movement patterns, 1955-75



Source: Klaasen and Molle, 1983.

4.3. Headquarters

4.3.1. Foreign direct investment

Multinational firms that had set up production and distribution facilities in Europe in the 1950s and 1960s increasingly felt the need for regional European headquarters (HQ) to coordinate their European activities. That was reinforced in later years, when the European operations became dramatically more important for the earning capacity of foreign multinationals.

The location of the incoming investments in regional HQ of non-European multinationals depends on their specific demands in terms of high-level specialized services and of extensive and efficient communication facilities. Supply constraints in terms of labour, office space and communications have become rather more important location factors than cost levels. Similarly, the general operating environment is felt to be more important than purely geographical considerations relating to the distribution of markets or other operating units of the organization.

The best suppliers of these important factors of location are the metropolitan areas. Hardly surprising, then, that they acccommodate more than their proportional share of headquarters in Europe. The top European locations for regional headquarter offices in 1976 were the United Kingdom (124), Germany (94) and Belgium (82). The most attractive cities were London (85), Brussels (75), Düsseldorf (54) and Paris (43) (Dunning and Norman, 1979).

The origin of incoming mobile investment in HQ was highly concentrated in the US. This is in line with the predominance of this country in DI in manufacturing and services in the EC. In 1977, American-owned offices accounted for as much as nine-tenths of offices owned by non-European firms in Western Europe. Japanese firms came second, but well behind at 9% (Dunning and Norman, 1979).

US and Japanese firms differed noticeably in their preferred locations. American firms seem particularly attracted to London, followed by Brussels. The pre-eminence of London is due, among other things, to cultural and language similarities, the position of London as the main financial and business centre in Europe, and the presence of an international airport (Heathrow). The presence of the headquarters ot the European Commission explains why so many US firms choose Brussels for their European headquarters. Other reasons are the presence of the NATO and a lot of international schools. The relatively poor place of Paris is due mostly to the unfavourable attitude to foreign (and particularly US) investment that was common in General De Gaulle's time, which was also the time when many regional offices were created in Europe.

European HQ for Japanese firms are highly concentrated in Düsseldorf, with London coming a poor second.

Düsseldorf was favoured, at least initially, for three reasons (Duining and Norman, 1979): a (perceived) less hostile environment in Germany for Japanese operations just after World War Two, the liberal attitude of Germany to commerce and industry within the EC, and Düsseldorf's central location for Japanese import/export offices. This early beginning led to the development of an extensive Japanese presence in Düsseldorf, and so to the emergence of a well-developed Japanese infrastructure (schools, restaurants, etc.).

4.3.2. Intra-European direct investment

European companies tend to locate their headquarters in the metropolitan centres of their home countries. The need for regional head offices in other EC countries is not strongly felt. But as far as it is perceived, the leading European companies tend to prefer a German, Spanish and/or Swedish location. Obviously, companies want to have a regional head office in Germany, to be present in an economic strong EC country with a very high level of purchasing power and close to the centre of the Community. Apart from such a central location, a more peripheral location is wanted to cover the northern (Sweden) and/or southern (Spain) parts of Europe (Dunning and Norman, 1979).

4.3.3. Interregional movement

Interregional movement of headquarters is a rare phenomenon. In the past, the amalgamation of regional companies into a larger national firm triggered off the move of new entities to metropolitan areas. A study of Aydalot (1983) shows the movement of headquarters in France. Of the total of 133 moves, 82% were on an intra-urban scale; more than half the moves concerned distances of under 10 km. Only 24 companies had relocated their headquarters to more than 100 km from Paris.

This strong concentration of headquarters in metropolitan areas is also visible in other countries. In Germany, in 1971 more than two-thirds (70%) of the headquarters of 716 firms were located in metropolitan areas. That high centrality of headquarters is corroborated by studies of other countries (see, among others, Evans, 1973; Pred, 1877; Watts, 1980).

4.4. R&D

Until 1980, R&D activities were largely concentrated with the mother company. In the era before the Second World War, the undertaking of R&D abroad was restricted to a select few multinationals. By 1965 it was estimated that even US multinationals, which had the highest propensity to locate abroad, had taken no more than 6% of their total R&D expenditure abroad. Indeed, this expenditure was highly concentrated in three industries — transport equipment, electrical and non-electrical machinery — which accounted for 62% of the total. More recent estimates put the 1966 figure much lower: at 5% of the total amount spent on R&D by US parent companies, and at only 3% of total US industrial R&D. By 1972, those shares has risen to 8 and 6% respectively. Not until the mid-1970s did sizeable research operations begin to be located abroad and significant world-wide R&D networks established (Howells, 1990).

Undoubtedly the often dramatic shift in the internationalization of research within companies has been part of their general move towards a world-wide operating climate. The difficulty of maintaining transport and communication links with overseas research laboratories severely hampered the proper functioning of integrated research between 'home' and overseas research establishments.

Neither the internationalization of R&D activities, leading to the relocation of R&D facilities to Europe, for instance from Japan, nor intra-European mobility were important at that time. R&D was largely a strategic in-home activity for large companies.

4.5. Services

In 1960, 36% of the total EC work-force was employed in the service sector, a percentage that had gone up to 54 by the end of the 1970s. An increasing proportion of service jobs are in producer services (financial and business services).

Changes in the structure of companies and the increasing specialization of producer services have promoted a symbiotic relationship between headquarter establishments

and the growing range and number of business, financial and professional service firms. The symbiosis is manifest in a search for locations that are rich in information, permit high contact intensity and have good access to regional, national, or even international telecommunication and transport networks. Consequently the search for agglomeration economies has led to a high spatial concentration of producer services in metropolitan areas (Daniels, 1985). The dominant factors of location decisions are access to the major markets and clients (for instance London, Paris, Brussels) and access to an international airport. Hence, the regional distribution of producer services is largely oriented toward metropolitan areas.

In 1980, more than USD 37 000 million was directed to non-manufacturing activities (Table 4.2), of which two-thirds to the service sector (trade, finance and insurance). In the beginning of the 1980s the US investments in services increased, especially in banking and other services. The most important host countries and regions were the United Kingdom (London), Belgium (Brussels) and France (Paris). The preference for central areas is clearly visible. The banking sector is the most important investment sector, followed by management consultancy and executive search (Dunning and Norman, 1979).

There is a remarkable difference in sectoral spread between the FDIs of Japanese and US companies. The Japanese concentrated more than half their total FDI in the service sector (Table 4.3), commerce received one-tenth, insurance and finance 17%, and other services 26%. By contrast, the US directed their investment efforts more to the manufacturing sector (Table 4.1).

The intra-EC mobility of producer services was very low as a result of their strong national orientation. Moreover, the producer services, especially the financial services, were subject to severe regulation and denied easy entry into foreign markets. Evidently, the central regions have a tendency to increased relative specialization in producer services, while in peripheral regions the tendency is one of relative and absolute specialization in consumer servicers. Just like the foreign investments in producer services, the pattern of regional distribution of EC producer services shows a clear preference for metropolitan (central) regions (Daniels, 1985).

4.6. Conclusions

At the end of the 1970s the US was the largest foreign investor in the EC, recording a total of USD 65 000 million. The Japanese had invested only USD 4 000 million at that time.

In the 1960s and 1970s, US foreign investments took place largely in the manufacturing sector, notably in machinery, chemicals and allied products and other manufacturing. To gain market access, US firms invested a lot in greenfield production facilities in the EC. The pace of investment slowed down in the second half of the 1970s as a result of economic recession. The Japanese invested only one-tenth of their total stock in manufacturing; most of the total amount invested was directed to the service sector (commerce, insurance and finance, and other). Dominant host countries for Japanese as well as American companies were the UK, Germany and France.

Altough the European integration process had started, large European and foreign companies still wanted to be present in several European markets. To locate production facilities and sales offices in several countries was a common strategy of large European companies.

Mobility in the service sector was rather limited. Only headquarter functions and banking activities of foreign companies showed some mobility. The presence of US manufacturing enterprise in the EC, for example, included the move of HQ functions and financial services to the EC. Other market and non-market services, building and construction, distribution and R&D were regionally or nationally oriented activities and/or activities which were performed within large companies.

5. Location factors in the 1960s, 1970s and early 1980s

5.1. Introduction

The study of mobile investment in Europe, broken down by type of activity and by geographical level, has revealed the patterns of this type of investment. In this chapter we will discuss in some detail the location factors that emerged from various location studies in the 1960s, 1970s and early 1980s in Europe.

Once we recognize that firms looking for sites need first to delimit the area in which to look, we understand that location factors may be relevant on more than one geographical scale. Multinational corporations, considering more than one country, can be expected to have other factors in mind than a small firm not looking beyond the home community. So, we will concentrate first on location factors that influence location decisions on an international level, and then go on to location factors that are significant on the interregional level.

Next we will examine some important changes in location requirements in the 1960s, 1970s and the beginning of the 1980s. At the end of the chapter we will draw some conclusions.

5.2. Location factors and location decisions: some empirical evidence

5.2.1. International mobile investment

As shown in Chapter 4, mobile investment on the international level has mostly concerned manufacturing activities, and to a lesser extent offices of multinationals and financial services.

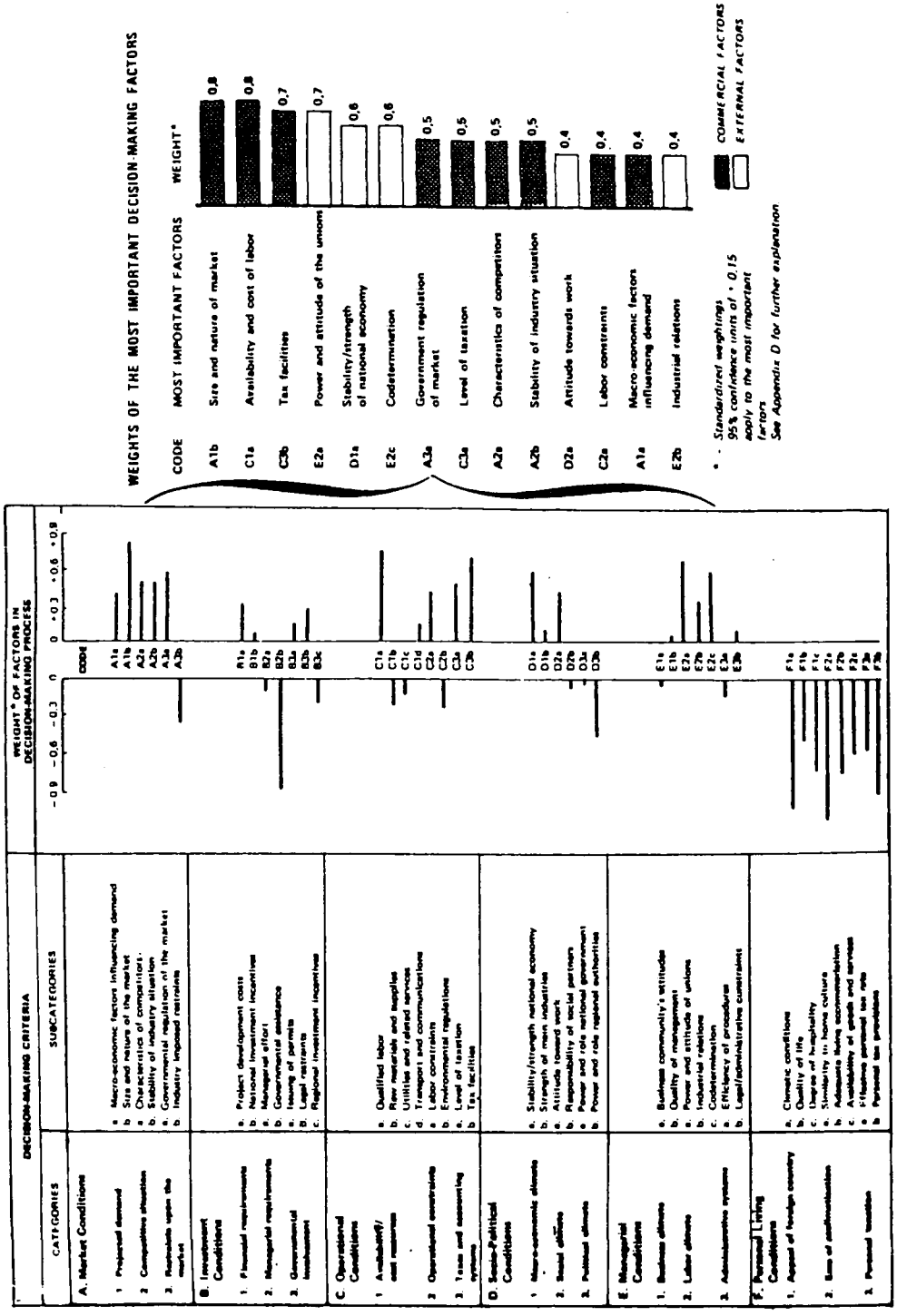
For a study of the factors that had affected the location decisions of multinationals investing in the EC at the end of the 1970s, 230 foreign companies in the Netherlands were asked to allot weights to the most important location factors (McKinsey, 1978). The respondents were for the most part American (44%) EC (35%) and Japanese (10%) companies, of which the majority (three-quarters) were occupied with manufacturing and some with trade and services. The results of the survey indicate that, when choosing a West-European country for investment, foreign executives were still setting the most store by factors with a direct effect on the projected return on their investment (see Table 5.1). The current size and nature of the markets for specific products or services, and their expected developments appeared to carry the heaviest weight. This factor was followed in order of importance by other operation factors, such as the cost and availability of qualified labour and tax facilities. Only after these came the most important 'external factor': the power and attitude of the unions. Nevertheless 'external factors' play their part.

Most of them lie in the direct sphere of influence of individual executives, and for precisely that reason can have considerable influence on the final location decision.

In 1979, Dunning and Norman conducted a survey among multinational companies, asking the companies to state the main factors that influence the location of a new regional office in the EC. The most important factor that emerged was the ease and quality of air travel and communications (see Table 5.2). The availability and quality of labour were also considered essential, more so than its cost. Striking is the weight attached to the living conditions for expatriates, especially housing, education and health care. For offices, which need highly qualified staff, good living conditions are really essential.

The location of US and Japanese manufacturing companies in the EC halfway through the 1970s and early in the 1980s was highly market-oriented (Buck, 1985). The choice of a country within the EC depended largely on the size of the national market. Other factors that influenced the location decision were labour aspects (cost, quality, quantity, productivity), the geographical position, and infrastructure. The latter factors have strongly influenced the location of foreign manufacturing companies in the Netherlands and Belgium (especially Flanders), notably the (petro-) chemical industry and the production of motor vehicles, which by then were already producing for (a major part of) the European market. In general, however, market

Table 5.1. Weighting of the most important factors in location decisions



Source: McKinsey & Company, 1978.

Table 5.2. Factors influencing the location of a new regional office

Factor	Importance of factor number of responses						Average rating	
	5	4	3	2	1	0	Mean	Median
1. Proximity to:								
(a) European manufacturing operations of company	4	3	1	0	0	7	2.3	3
(b) European branch offices of your company	6	3	0	1	0	5	2.9	4
(c) Offices of other multinational companies providing similar services	0	0	3	2	2	8	1.0	0
(d) Corporate HQs	0	0	2	3	0	10	0.8	0
(e) Specialist services (e.g. finance, accounting, etc.)	1	3	7	1	1	2	2.7	3
2. Employee availability:								
(a) Work permits for expatriates	8	3	2	1	0	1	4.0	5
(b) Executive/professional	5	4	5	1	0	0	3.9	4
(c) Secretarial and clerical	4	4	4	2	0	1	3.5	4
3. Employee costs:								
(a) Expatriate	3	3	5	2	0	2	3.1	3
(b) Executive/professional	2	5	6	2	0	0	3.5	3
(c) Secretarial and clerical	1	3	7	2	2	0	2.9	3
(d) Social security payments and fringe benefits	2	3	7	2	0	0	3.2	3
4. Employee quality/efficiency:								
(a) Executive	4	5	3	2	0	1	3.5	4
(b) Professional	7	5	2	1	0	0	4.2	4
(c) Secretarial and clerical	8	4	2	1	0	0	4.3	5
(d) Labour turnover	3	5	3	1	0	3	3.1	4
5. Office costs:								
(a) Availability of suitable accommodation	7	5	1	2	0	0	4.1	4
(b) Rents, leasing, building costs	4	4	4	2	1	0	3.5	4
(c) Rates	1	2	7	1	2	2	2.5	3
6. Service costs:								
(a) Heating, lighting, etc.	0	2	6	3	3	1	2.3	3
(b) Telephone, telex, postage	5	3	1	2	2	2	3.1	4
7. Ease and quality of communications:								
(a) Air	13	2	0	0	0	0	4.9	5
(b) Road and rail	6	0	6	2	1	0	3.5	3
(c) Telecommunications	12	3	0	0	0	0	4.8	5
8. Availability and quality of support services, e.g. financial accounting services	0	8	5	1	1	0	3.3	4
9. Taxes:								
(a) Personal: local	7	1	2	4	1	0	3.6	4
expatriates	6	2	5	0	0	2	3.5	4
(b) Corporate	7	3	4	0	0	1	3.9	4
10. Living conditions for expatriates:								
(a) Housing, education, health care	8	4	3	0	0	0	4.3	5
(b) General living costs (food, entertainment)	5	6	3	0	1	0	3.9	4
11. Legal and commercial environment	2	6	4	2	0	1	3.3	4
12. Language and cultural considerations	3	8	3	1	0	0	3.9	4
13. Attitude towards foreign companies:								
(a) By government	7	4	1	0	1	2	3.7	4
(b) By business community	2	5	3	1	0	4	2.7	3
14. Government incentives (e.g. grants, investment/tax allowances, etc.) to foreign investors	2	4	2	3	1	4	2.6	3
15. Exchange control regulations	6	4	1	1	1	2	3.5	4

Source: Dunning and Norman, 1979.

factors were the most important determinants for choosing a country to settle in, while production factors (labour climate, infrastructure and geographical position) were the decisive location factors by which to choose a region. Financial incentives and tax grants also play an important role on the regional level.

5.2.2. Interregional mobile investment

In the 1960s and 1970s, interregional movements were the object of many studies. One important conclusion of empirical studies is that internal pressures, related to growth in output, are the most frequent reason for either a relocation decision or the establishment of a branch plant (see, among others, Cameron and Clark, 1966; Keeble, 1968; Townroe, 1972; and Schmenner, 1982). Indeed, most firms that were interviewed reported the same three key locational variables — availability and cost of modern factories, and availability of labour — as influencing both their decision to move and their choice of a new location (Keeble, 1974).

We will now take a closer look at empirical studies carried out in some EC countries in the 1960s and/or 1970s. Hanoun and Templé (1975) conducted a survey among 442 large establishments that had settled in the provinces in France between 1960 and 1970. The most important factor that interfered with the movement of industry was the recruitment of skilled and unskilled labour (see Table 5.3). The second factor was market linkage. An older study carried out by Cetec (1961) in France had indicated much the same location factors:

(i) labour force;
(ii) cost and quality of the land or buildings;
(iii) transportation of goods.

Table 5.3. Factors interfering with the movement of industry in France

Determining factors	Role indicated (in per cent of all responses) as	
	Strong	Moderate
Labour-related factors		
recruitment of the work-force	32.3	41.4
recruitment of unskilled labour	25.5	37.2
social climate	13.5	35.6
salaries	6.2	32.3
labour market competition	18.6	27.6
Distance-connected factors		
supplies	15.3	23.2
market links	21.0	13.5
links to other establishments of the same group	12.2	16.4
links to headquarters	9.7	19.2
Local-environment factors		
local industrial climate	8.2	25.0
subcontracting possibilities	3.5	14.6
available firm services	2.2	9.1
Personal factors		
pre-established local contacts	15.7	22.3
attractive location for executives	4.0	21.7
firm-owned land	12.6	9.7

Source: Hanoun and Templé (1975).

In Germany as well, many scholars have considered the factors that dominate the mobility of firms on the inter-regional level. From Bade's review (1983) of 12 relevant studies, labour, space, and transport are the factors most frequently cited, their ranking varying with the sector (see Table 5.4). According to Kaiser (1979), there seem to be three relevant groups of sector. The first consists of metal and structural metals manufacturing, mechanical engineering, vehicles and chemicals, which have a pronounced preference for space and a somewhat lesser one for labour, while transport is not regarded as quite so important. The second group subsumes electrical and instrumental engineering as well as textiles and clothing. In these groups of industry, labour-market characteristics clearly dominate. The last group comprises timber and lumber, wood products, paper, printing and food, sectors which set great store by transport factors, including the proximity to sales markets, but consider labour aspects of minor value (Bade, 1983).

Table 5.4. The importance of locational factors: results of selected studies in Germany

	1968–69	BMA 1970-71	1972-79	Brede	Dohmann	Freund and Zabel	Furst and Zimmermann	Gaebe
Number of respondents	?	?	?	912	53	36	346	32
First rank	space	labour	space	space	labour	space	transport	labour
Second rank	labour	space	labour	labour	space	transport	space	space
Third rank	transport and sales	transport and sales	transport and sales	sales	agglomerate economies	financial aids	labour	public infrastructure
Fourth rank	public aids	personal preferences	personal preferences	public aids	transport	labour	financial aids	transport
Fifth rank	personal preferences	public aids	public aids	transport	personal preferences	sales	industrial ambience	
	Grotz	Kaiser and Hoemer	Kreuter	Ruppert	Wolf	von Ballestrem and Förtsch	von Rohr	
Number of respondents	?	125	2208	4000	164	283	165/200	
First rank	labour	labour	labour	labour	space	space	space	
Second rank	personal contacts	transport	space	space	labour	transport	labour	
Third rank	space	space	transport	transport	other	labour	transport	
Fourth rank	—	public infrastructure	take-over of premises	financial aids	financial aids	local contacts	financial aids	
Fifth rank	—	sales and purchases	sales	pollution restrictions	sales	personal preferences	—	

Note: For reasons of compatibility, the terms of factor used here assume physical as well as pecuniary aspects, e.g. 'labour' includes the availability of work-force and the level of wages while 'transport' summarizes accessibility and costs of transport; in addition, 'sales' comprehends facilities and proximity to sales markets.

Source: Bade, 1983.

5.3. Changing location requirements

5.3.1. Markets

Although the integration process had started, the European market was still highly fragmented in the 1960s and 1970s. The market was far from perfect, and for many submarkets national regulations and protection measures persisted. Internationalization and European integration gave rise to growing international competition and stimulated enlarged production scales and the development of multilocational firms. The growing, but still fragmented, EC market stimulated European and foreign companies to be present in several EC countries, for both production and distribution facilities.

The size and growth prospects of the market were the main factors in international location decisions. Other factors like economic stability, fiscal and financial regulations also played their part. In the 1970s some firms already started to produce for (part of) the European market although national standards and other regulations prevented full use of larger-scale production.

On the interregional level the market was not a decisive factor of location, at least for production. Headquarters and service-type activities, on the other hand, were very much inclined to locate in the vicinity of major clients (and urban amenities).

5.3.2. Transport and communication infrastructure

In the 1960s and 1970s, road haulage was gaining ground on short-distance jobs and on jobs for which speed was essential. With the creation of the major trunk-road system in most European countries and the development of more specialized vehicles, lorry transport flourished at the expense of the rail services. The integration of the European market and the development of multilocational firms contributed to a stronger dependence on road and railway infrastructure. Rail and road infrastructure became essential elements for reaching markets.

Massive investments in road and harbour infrastructure in those decades enabled firms to take many more regions into consideration for location. Especially manufacturing firms were relocating on the interregional level. While road infrastructure provided the basic conditions, other factors, like lack of space to expand and lower cost of premises and labour, were pushing and pulling factors for such relocations.

5.3.3. Labour-market aspects

As long as the Fordist organization of production dominated the manufacturing process, a lot of low- and semi-skilled workers were needed. Assembly lines were introduced to produce large numbers of identical products, and replace skilled manpower with semi- and low-skilled workers. Large-scale and standardized production made the availability of a large pool of semi- and low-skilled workers an essential location factor. However, the cost/productivity ratio of the workers' performance played its part too. Notably, peripheral regions in Europe were able to attract in particular the manufacture of standardized products with relatively low value-added per unit of product. Manufacturers of products that needed more intensive contacts with local clients and/or higher qualified manpower, preferred locations in or near the main markets in Europe.

5.3.4. Public policy

In the 1960s and 1970s, government agencies tried to control the location of firms in various ways: directly (through financial incentives, tax reliefs) and indirectly (investment in infrastructure, training facilities, etc.).

Although financial incentives have never been a decisive factor for location, they have certainly influenced the direction of mobile investment, notably on the interregional level. With respect to the impact of regional assistance on the location decision of companies, the evidence is inconclusive. A recent study revealed that even without regional aid, most of the assisted firms (six or seven out of every 10) in Belgium, France, Ireland and Spain would still have located in their present site, while

in Italy, the Netherlands and Portugal the same applies to only three to four out of every 10 assisted companies (PA/CEC, 1989). As to Ireland, the study has shown that in the absence of regional aid quite a few firms would have located abroad.

Moreover, most firms suggested that, although the absence of regional incentives had not influenced their location decision, it did to some extent affect the overall level of investment and employment.

The most effective policy for redistributing economic activity across space has been the provision of basic infrastructure in disfavoured regions. Several regions have certainly become more attractive especially after investments were made in transport facilities in the 1960s and 1970s, although they have never been major factors for attracting mobile investments.

5.4. Conclusions

From several empirical studies on the international level, three groups of factors seem to guide the decision of companies to settle in a particular country within the EC.

The first group is related to the market conditions, the size and nature of the national market being the most important. The second group of location factors is related to the labour market, the availability and cost of qualified labour coming first. Transport and communication infrastructure, especially roads and railways, are the main guarantees of access to markets.

On the regional level, the nature and size of the market is less important. On that level, labour-related factors are dominant, such as the availability and costs of labour, with the availability of premises and space coming second, and accessibility and costs of transport bringing up the rear.

Part III

Signals from the present

6. Trends in the second half of the 1980s

6.1. Introduction

The economic recession of the second half of the 1970s and early 1980s gave rise to a drastic restructuring of the economy and thus profound changes in the operation of firms with respect to the market. Because these changes also had serious consequences for total mobile investment in the second half of the 1980s and its spread across Europe, we will discuss them in some detail in this chapter.

6.2. Technology and industrial structure

By the mid-1970s, rigidities in production and production factors and changing market conditions had led to economic stagnation. As a result, firms proceeded to restructure their activities. Especially the rationalization of manufacturing activities created a strong increase in unemployment.

In response to changed market conditions, firms set out to enhance their innovative capacity. Heavy investments in R&D, increased specialization, and modernizing the capital stock by making it more flexible than before, were among the favourite strategies. Technological innovation was considered an essential instrument to cope with intensified competition.

The economic restructuring created new conditions for economic growth, notably in such high-tech industries as electronics, aeronautics, and chemical specialties. Service activities, too, showed considerable growth. Apart from the structural movement towards more social and health-care services, the tendency towards specialization produced an upswing of all manner of producer services.

Because knowledge-intensive producer services thank their very existence to the innovation requirements of their customers, they need constantly to upgrade and update their knowledge bases and organization structure. Product innovation and economic integration are the key words. Traditional knowledge-intensive services such as consulting engineers and organization consultants are developing new products, but are also finding themselves taken over by, or making mergers with, services from other branches: software engineering, accountancy, marketing, and financial specialists. The increasing necessity to integrate various areas of knowledge is forcing specialists to diversify. Several branches may enter into product competition, and the most substantial companies (major accountancy firms, for instance), with their relatively great potential for product innovation, often succeed in dominating the new market. On the other hand, new market niches are opening up in the specialist spheres where small suppliers still can operate successfully.

One result of the progressive complexity of the business environment, the internationalization of private enterprise, etc., is that production companies more and more enlist the help of professional consultants. There are professionals in the spheres of management, technology, financing, design, automation, etc. The internalization of their services lays the basis for the tertiarization of the industrial sector. A growing proportion of workers in industry are no longer employed in the production process, but in such service-related activities as management, marketing, corporate planning, and R&D (Bailly *et al.*, 1987). One consequence of the increasing incorporation of services in the production process is that the separation between production and services is getting diffuse, the two elements becoming more and more interdependent.

6.3. Globalization of economic activity

A trend that is both a resultant and an initiator in the interplay of the developments mentioned above is the further internationalization (globalization) of goods and service markets. Specialization, technological progress, soaring R&D expenditure and the changing competitive relations have pushed larger companies towards more flexible production processes. In addition, the need is felt to sell on serveral important geographical submarkets, and spread production units accordingly. Yet

another reason to 'go international' is the wish to draw supplies of raw materials and product components from all over the world ('global sourcing'). At the same time, improved telecommunication and information techniques have opened prospects for global trading.

Within the world economy, three main market and production areas are emerging: Northern America, Europe and South East Asia (Triad). Multinationals will increasingly try to adjust their activities in these main market areas, mainly to avoid the risk of fluctuating external exchange rates, and in view of cost factors and political situations.

The intensifying international competition and evolving technologies of computer communication have led to different forms of internationalization (Howells, 1990):

(i) Sales market: shorter product lifecycles demand faster recovery of high R&D costs by creating the widest possible market in the shortest possible time ('global market'). Production facilities are spread to all the Triad-members. To be present on all markets is very important, because of the increasing international competition and the rapidly changing demands of customers.

(ii) Research ('global intra-organizational dynamics'): the larger companies increasingly locate their R&D activities abroad, to make use of local specialized labour and to capitalize the chance of greater direct involvement in the market;

(iii) Cooperation ('global inter-organizational research contracts'): the increasing cost and complexity of R&D has stimulated cooperation of large companies in the shape of strategic partnerships between domestic and foreign companies.

(iv) Subcontracting: the extension of subcontracting across national boundaries.

Companies develop global strategies to achieve competitive advantages. In some industries, competitive advantages arise from concentrating activities on one nation and exporting components or finished goods to foreign markets. This occurs where significant economies of scale can be achieved in performing an activity, or advantages in locating linked activities in the same place to allow better coordination. Concentrated, or export-based, global strategies are typical in industries such as aircraft, machinery, materials and agriculturally related products. Normally, activities are concentrated at the firm's home base. In other industries competitive advantages arise from (or home-based disadvantages are overcome by) dispersing activities to several or many nations which are optimum in terms of costs, quality, etc. Dispersal is favoured by industries where high transportation, communication, or storage costs make operation from a central location inefficient and risky (exchange-rate risks, political risks, and risks of supply interruption). Dispersed activities are also favoured where the local requirements differ substantially, and/or to enhance local marketing in a foreign nation, by signalling commitment to local buyers and/or providing greater local responsiveness. Dispersed global strategy is typical of such sectors as consumer goods, telecommunication, car industry, food and beverages industry, pharmaceuticals and many services (Porter, 1990).

A dispersed global strategy entails disintegrated functions. With development costs increasing and lead times lengthening, while at the same time product lifespans become shorter, all firms undertaking R&D have come under pressure. To recoup the costs as rapidly as possible, firms have sought to launch their new products in as large a geographical market area as possible, increasingly world-wide. Production facilities are spread across the three main market and production areas (Triad). Presence on all these markets is very important, because of the increasing international competition and to meet specific and rapidly changing demands of customers. Therefore multinationals are integrating their branch plants in a network for global/local interplay (Krifa and Moulaert, 1991). Satellite business — a scaled-down copy of the overseas parent — is replaced with integrated plants making the most effective use of capital. Such increased specialization of production has in the past tended to work against the autonomy of the branch, but the progressively global sphere of operations, and unwillingness to be reliant on one nation for development, open prospects for branch plants to take

the initiative in several product areas and create units to develop their product responsibilities (Chapman and Humphreys, 1987).

Examples of corporate spatial division of employment are found with the great producers of American merchant semiconductors, such as Texas Instruments, Motorola and National Semiconductor. These locate most of their R&D in the US. They also tend to have small R&D units in major foreign markets, usually concentrating on development work in relation to important 'local' markets. Another example is IBM with its elaborate network of production, R&D, service and selling activities in all its important markets. Global organization is progressively important in Japan and partly explains the growth of Japanese investments in the EC, apart from the fear of 'Fortress Europe'. There are several other reasons why Japanese companies move their overseas presence upstream beyond marketing and production and into design, product development and research (*Financial Times*, 3 December 1990):

(i) the wish to understand better the demands of foreign customers and offer them improved service and support;

(ii) skill shortages and high wage costs at home;

(iii) the desire to tap international scientific networks and policy-making;

(iv) pressure from foreign host governments to upgrade the quality of Japanese investments by doing more development work locally.

Because of the internationalization of large-scale enterprise (the main buyers of knowledge) and the need for scale enlargement in terms of markets and knowledge building, energetic internationalization is currently also in progress among the knowledge-intensive business and financial services. Mergers, takeovers and partnerships are concluded by companies of the same kind (insurance companies, accountants, lawyers, banks, etc. among themselves), and between related activities (for instance between a bank and an insurance company).

6.4. European integration

In the 1980s, European integration was given a new impetus to deepen (single market and EMS) as well as widen its progress.

The liberalization process that followed the creation of the common market in the 1960s and 1970s had not covered all sectors of activity. For some, like defence, public utilities, and finance, markets were still heavily regulated on a national basis. The national regulatory systems gave rise to different (production) standards and geographically highly fragmented markets. The internal market programme does away with these remaining pockets of protection of national markets. It forces firms to adapt to the new market conditions.

The European Monetary System has succeeded in stabilizing the exchange rates of a number of European countries cooperating in the system, thus helping to create a favourable business climate.

The accession of Greece, Spain and Portugal to the EC has put the seal on the integration of their markets with those of the other EC countries, attempted in the past through trade liberalization. The accession improved the investment climate in the three new EC Member States in two ways: (1) the EC was expected to assure a stable political system; (2) the new members received a stimulus to modernize their economic structure and the quality of their infrastructure.

The completition of the internal market and the growing international competition are strong incentives to concentrate production and distribution in certain sectors, to reduce costs and enlarge scales sufficiently to face foreign competition. In some sectors the advantage is more obvious than in others: it depends on the kind of product. Some products are highly protected by national rules or need adaptation to the local needs of consumers (pharmaceuticals, food and beverages). Especially in sectors where demand is fluctuating and grows but slowly (food and beverages, vehicles, data-processing equipment, textile and clothing, mechanical engineering), companies prefer mergers and acquisitions

to greenfield investments as a means to expansion. A specific argument for the food and beverage industry is that to gain a significant share in a foreign market it is easier to take over a brand name than to introduce products of your own.

6.5. Towards economies of scope

As a result of the demands of consumers for better quality, more variety and faster delivery, the dominant system of production based on economies of scale is being gradually replaced with one based on economies of scope. In contrast to previous methods of production, this system is characterized by flexible production methods and the ability to alter product and process specifications rapidly. Flexible specialization refers to the application of informatics and micro-electronics in the production process, breaking the rigidity of existing production methods. Modern logistic principles and informatics are thus becoming key factors in the cost competition of the flexibly specialized production process.

Increasingly, competition is knowledge-based rather than cost-based. By making production processes more flexible, technical advance enables producers to comply with buyers' ever greater requirements of quality, variety and prompt delivery. Such demands keep suppliers on their toes and encourage them to improve and/or innovate their product range and the organization of their production process. Key technologies such as informatics, flexible automation, new materials and biotechnology enable them to do so. Industrial sectors such as chemicals, electrotechnics, electronics, as well as wholesale trade, transport and distribution respond readily to these key technologies. New technologies (micro-electronics and information technology) also play an important part in enhancing the efficiency, controllability and quality of the service package. The simultaneous application of new technologies determines the innovative capacity of companies, that is, the extent of product and process innovation.

More flexible production techniques (flexible automation, assembly of products from standard components) are some of the means by which companies try to satisfy the increasing need for regular innovation of products and production processes. Orientation to the markets has been made possible by technological advance. Factors stimulating that development can be found on the demand as well as the supply side of the market. On the supply side, logistic developments coupled with product innovations have reduced the transportation costs per unit of product. The rise of products from the Far East combined with the reduced transportation costs and the onset of the liberalization process have intensified competition especially on the European and American markets. On the demand side, producers are increasingly confronted with critical consumers. Their critical attitude has created a market demand marked by high quality requirements and the call for a more varied supply. This discriminating demand and the keener rivalry of suppliers make for a fast-changing fashion pattern: besides economies of scale, economies of scope are tried for.

6.6. Networking of companies

Competitors tend to cooperate for rapidly developing areas of activity, which in view of required know-how, high development costs, and the diminishing period of cost recovery, can only be taken on as a joint effort. That qualitative shift in the organizational behaviour of large firms has loosened corporate boundaries, and triggered, especially in the 1980s, the proliferation of new forms of joint venture and strategic alliance (Amin and Dietrich, 1990). That new form of networking implies the formation of long-term global partnerships of multinationals, in conjunction with, or as a substitute for, foreign direct investment. The new forms of alliance dominate those industries that depend on large R&D investment and continual technological innovation for effective competition. These joint venture and strategic alliances are undertaken with national as well as foreign companies.

Increased concentration of large companies on core activities has been one reason for the creation and growth of companies specialized in business services. Such externalization, which also occurs with respect to many

more tangible products, implies that non-key activities are farmed out or left to specialized companies. It is a tendency observed in various production sectors. For example Rhône-Poulenc (France) as a chemical group, Bull (computer sector), Philips (electronics) and Prudential Corporation (life-insurance) are selling off those departments in which they feel they will never become world leaders. Much of that type of specialization goes hand in hand with scale enlargement, and tends to give rise to supply contracts and farming-out agreements among companies.

An extreme phenomenon which has raised a lot of attention is that of the 'hollow corporation'. Benetton, the Italian company for fashion clothing, can be cited as an example. Benetton has subcontracted all but the development, design and distribution of their products to a variety of small, specialist firms. Such extensive production subcontracting allows least-cost and rapid response to ever-changing market signals through the externalization of risk, uncertainly and productive capacity. By focusing on activities such as R&D, marketing, distribution and finance, the 'hollow' company effectively retains control in all the strategic areas required for securing profits and market leadership (Amin and Dietrich, 1990).

Contracting-out is not, of course, a new phenomenon. However, there are significant qualitative changes in buyer-supplier relations in the big-firm sector. There is a significant increase in externalization, with buyers stressing partnership and collaboration rather than dependence. This is as true for R&D as for production and services. There is a shift towards stable and long-lasting contracts between firms and their 'privileged-status suppliers', involving joint design work, sole-sourcing agreements, purchase of entire systems of sub-assemblies, resepect for mutual technological strengths, and a high premium on total service and quality offered by suppliers (Child and Loveridge, 1990). Quality control and just-in-time production and/or supply often play an important part.

6.7. Conclusions

The second half of the 1980s was characterized by new economic growth. Technological innovation, increased specialization, a more flexible production system, and globalization are dominating economic activities. At the same time a new impetus is given to economic integration in Europe. These tendencies have resulted in an extremely competitive business environment, which has provoked firms to operate various strategies (concentration on core activities, high R&D investments, global player, creating niche markets, etc.).

Within the Triad, the European market is one of the main markets. Therefore, the creation of the internal market has made Europe very attractive for both foreign and European investors. New investment decisions are made with respect to the enlarged market: concentration of fragmented activities is but one of the strategies that is followed in that respect. Besides, networking and subcontracting among firms are dominant phenomena.

7. Mobile investment in the second half of the 1980s

7.1. Introduction

The economic and technological changes of the 1980s have had important consequences for the total amount of mobile investment in Europe. This chapter will analyse, to the analogy of Part II, mobile investment made in the second half of the 1980s by type of activity and geographical level. To that end we will again distinguish manufacturing, headquarters, R&D, distribution and services on several regional levels.

7.2. Manufacturing

7.2.1. Foreign direct investments

With a view to the advent of the single European market, corporate executives the world over were keen on getting a firm foothold in the EC in the second half of the 1980s. American and particularly Japanese firms were expanding their operations in the EC, through portfolio as well as greenfield investments.

US companies

By the end of the 1970s, the US had invested USD 80 686 million in the EC (Table 4.1). Between 1980 and 1985 this amount increased to nearly 85 000 million. Of the total USDIE accumulated in the EC, more than half was directed to manufacturing, especially machinery, other manufacturing, chemicals and allied products. Compared to the previous period, 1950-80, there was a slight shift away from manufacturing (Table 4.2).

Foreign direct investments in manufacturing were highly concentrated in two countries, the United Kingdom and Germany. France, Italy and the Netherlands followed at some distance. Compared with the 1960s and 1970s, the regional distribution of direct investments did not change much in the 1980s (Krägenau, 1987).

Table 7.1 gives more information about direct investments and disinvestment of the US in each EC country in the second half of the 1980s. The figures give the balance of investment and disinvestment by country. A negative figure does not mean that no investments had been made, but that disinvestment surpassed investment. Disinvestment may refer to, for instance, the closure or sale of establishments. Moreover, the figures include portfolio investments. Therefore, the figures do not allow us to draw definitive conclusions about the volume of greenfield investments.

In the second half of the 1980s the US had a positive investment balance in the EC of nearly USD 4 000 million. In particular, Germany and Italy appeared to suffer large-scale disinvestment by US firms, far exceeding investment. Admittedly to a lesser extent, disinvestment in Luxembourg, Belgium and Denmark is also in excess of investment. In the remaining EC countries the investment balance is positive. Strikingly high is the figure of net investment in the UK: USD 6 000 million. The Netherlands and France also record a high positive net figure in comparison with the other EC countries.

Table 7.1.
Net direct investment flows from US firms into EC countries, 1985-88, in USD thousands of million

	Net (dis-)investment[a]
Luxembourg / Belgium	-714
Denmark	-444
Federal Republic of Germany	-4 107
Greece	+180
Spain	+345
France	+1 344
Ireland	+92
Italy	-1 587
Netherlands	+2215
Portugal	+15
United Kingdom	+6 384
Total	+3 723

[a] A positive sign indicates net investment; a negative sign net disinvestment excluding reinvested profits.
Source: Spanneut, 1990.

To complete Tables 4.2 and 7.1, which only recapitulate the total financial flows to countries, without differentiating among mergers, acquisition and greenfield

investments, Table 7.2 shows figures of US greenfield manufacturing investments by region, between 1986 and 1989. In that period, the United Kingdom acquired nearly two-fifths of all greenfield plants. Active regional policies (development grants, development agencies) diverted much of this new foreign direct investment to development areas, primarily to Scotland and Wales, where it attracted a large number of new foreign-owned plants.

The second and third host countries for US FDI are France (30 plants) and Ireland (28 plants). In France there is clear concentration in the metropolitan area and surroundings (Île-de-France and Bassin Parisien) and the intermediate regions in the south (Mediterranée, Rhône-Alpes, Auvergne and Côte d'Azur). These sunbelt regions with their excellent international transport and telecommunication infrastructure and numerous centres of excellence have created an attractive investment climate for US firms. The share of the Irish Republic is remarkable as it is one of the smallest EC markets. Owing to its language, cultural ties, young qualified workforce, incentives and tax holidays and the marketing efforts of the IDA (Industrial Development Authority of Ireland), this country has attracted many US investors.

Table 7.2. US investments in greenfield manufacturing operations in Europe, 1986-89

	Number of plants	Number of jobs	Most important investment regions
United Kingdom	68	7 100	Scotland, Wales, Midlands
France	30	2 900	Île-de-France, Bassin Parisien, Mediterranée, Centre Est, Côte d'Azur
Ireland	28	2 700	Dublin, Cork
Netherlands	15	1 000	Brabant, Limburg, Randstad
FR of Germany	12	1 400	Baden-Württemberg, Bayern, NRW
Spain	6	800	Cataluna, Valencia
Belgium	5	750	Vlaanderen
Italy	5	500	Nord Ouest, Lombardia, Nord Est
Luxembourg	5	300	
Total	174	17 450	

Source: BCI.

Japanese companies

Table 4.3 already showed that Japanese foreign direct investment increased considerably in the 1980s. The total amount of direct investment in Europe by Japanese companies between 1980 and 1984 (USD 3 251 million) was approximately half their aggregate direct investment in the period 1951-84, which amounted to USD 7 136 million (Dunning, 1986). The annual FDI in manufacturing and non-manufacturing multiplied by five between 1985 and 1988 (Table 7.3). In relation to US investments, the share of Japanese investment in manufacturing is small (some 17% in 1988 against almost 50% for the US).

Compared to the 1960s and 1970s the second half of the 1980s shows not only a considerable increase in the volume of investments, but also a change in regional distribution (Table 4.5). Germany had lost its position to France and the UK. The renewed attention for Spain after its accession to the EC is another striking feature.

Table 7.3. Japanese direct investment in the EC, in million USD, 1985-88

Fiscal year	Manufacturing	Non-Manufacturing
	Amount	Amount
1980	161	388
1981	198	576
1982	139	677
1983	247	679
1984	337	1476
1985	323	1545
1986	370	2932
1987	852	5407
1988	1548	7307
1980-84	1892	3796
1985-88	3093	17191
1980-88	4175	20987

Source: Jetro, 1990.

Table 7.4. Japanese manufacturing companies in Europe by country and industry (529 firms at the end of January 1990)

	Total	UK	France	FR of Germany	Nether-lands	Belgium	Luxem-bourg	Ire-land	Spain	Italy	Fin-land	Norway	Sweden	Den-mark	Austria	Portu-gal	Switzer-land	Greece	Ice-land
Total	529	132	95	89	34	25	2	22	55	28	4	0	6	3	12	13	5	3	1
Food and related products	21	3	15	1	1				1										
Textile mill products	8	3			1			1	1							2			
Apparel and other finished products	7		3	2						2									
Furniture and fixtures	4		2	1					1										
Pulp, paper and paper products	4	1		1							1					1			
Chemicals and allied products	83	11	11	9	10	6		4	11	8			3	1	2	3	3	1	
Medicines	14		3	4		1		2	3	1									
Rubber products	18	1	4	4	2	1		3		1				1	1	1			
Stone, clay and glass products	13	2	2	2	1	4		1	1										
Iron and steel	5				1	1										1		1	1
Non-ferrous metals and products	14	5	5					1	2							1			
Fabricated metal products	20	7	2	2					3	1					4	1			
General machinery and equipment	66	16	14	16	6	1	1		8	3			1						
Electronic equipment, electronic machinery, equipment and supplies	86	25	18	19	3	2		6	7	6									
Electronic parts and components	53	20	4	14	2	3	1	5	2	1				1					
Transport equipment	14	4	2			1			5	1						1			
Parts and components of transport equipment	24	14	1	1	2				2	2			1			1			
Precision machinery and equipment	22	4	3	7	2	1		1			1		1		1		1		
Others	53	16	6	6	3	4		1	5	3	1			1	4	1	1	1	
Design centres/R&D facilities	73 (23)	24 (9)	11 (4)	14 (6)	3 (0)	4 (1)	0	1 (0)	11 (0)	3 (2)	0	0	1 (0)	0	0	0	1 (0)	0	0

Note: The number of design centres and R&D facilities are separately counted and are not included in the total in this table. Any design centres and/or R&D facilities established as an organization of Japanese-manufacturing enterprises in Europe (design centres and/or R&D facilities formed within a Japanese-manufacturing enterprise in Europe shall be counted as one (1) centre and/or facility irrespective of their actual number of offices), and any independent design and/or R&D firms are included in the number of design centres & R&D facilities. Figures in parentheses indicate the number of independent design and/or R&D firms out of the total of design centres and R&D facilites.

Source: Jetro 1990.

In a recent questionnaire, Japanese companies were asked to state their motivation for investing in Europe (Jetro 1990). Nearly a quarter of the 270 responding companies saw it as one step toward a globalized business strategy. The second reason was to convert from exports to local production to satisfy expanding demand. To meet the needs of European consumers was found to be the third most pressing reason to locate in Europe. For all these reasons, participation of Japanese manufacturers in European business communities began to accelerate abruptly in the latter half of the 1980s, and the number of Japanese manufacturing companies in operation or planned for future operation in 18 European countries stood at 529 in 1990.

In an analysis of Japanese manufacturers' FDI in Europe by industry, the electric machinery industry was found to be the top investor in 1988 at USD 557 million invested (an increase of 311% since the previous year), followed by the general machinery industry, with an invested amount of USD 261 million (a 300% increase) and the chemical industry (USD 247 million).

Table 7.4. examines more closely the regional and sectoral distribution of the 529 Japanese manufacturers penetrated into Europe by 1990. The UK (133 firms), France (95 firms) and Germany (89 firms) are the top three European countries where Japanese manufacturing companies tend to concentrate. Up to the mid-1960s, the number of Japanese manufacturing companies in the UK was limited to 28 firms, behind France (35 firms) and Germany (36 firms). After 1985, Japanese manufacturers' investments in the UK increased rapidly and extensively, their number exceeding that of Germany in 1986 and that of France in 1988. The Japanese are also very active in investing in southern Europe. Spain (55 companies) is by far the most important host country, with the largest investments in chemicals, general machinery, electronic equipment and transport equipment.

Table 7.5. Japanese investment in greenfield manufacturing operations in the EC, 1986-89

	Number of plants	Number of jobs	Most important investment regions
United Kingdom	59	11 400	Wales, Midlands, North, South
FR of Germany	24	3 400	Nordrhein-Westfalen
France	23	3 600	Bassin Parisien, Elzas, Lorraine, Île-de-France, Centre Est
Spain	11	1 400	Cataluna, Valencia
Netherlands	9	450	Brabant, Limburg
Italy	8	1 600	Lombardia, Nord Ouest, Nord Est
Ireland	7	600	Dublin, Cork regions
Belgium	5	450	Vlaanderen
Luxembourg	1	100	
Total	147	23 000	

Source: BCI.

Table 7.5 represents a more detailed regional distribution of greenfield manufacturing companies among host regions.

Between 1986 and 1989, 147 Japanese firms located in Europe, of which 59 in the UK. Apart from their general preference for the South East, the Japanese share their locational preference for intermediate (Midlands) and peripheral areas like Wales and the North with US companies. In France as well, the Japanese show the same regional preferences as their US counterparts, except that they prefer north-eastern regions (Elzas and Lorraine) to those of the southern sunbelt.

In Germany, Nordrhein-Westfalen is the most important host region for Japanese companies, because of their traditional presence after the Second World War. Already in the 1960s and 1970s the Japanese created a Japanese centre in Düsseldorf, which attracted further Japanese investments.

7.2.2. Intra-European direct investment (IEDI)

The accumulated net direct investment flows between 1980 and 1984 are presented in Table 7.6.[1]

The total real net direct investment flows within the Community between 1980 and 1984 amounted to ECU 33 300 million, which is ECU 6 700 million annually. The highest outgoing flow of direct investments has been measured from the Netherlands: ECU 9 700 million. The Federal Republic of Germany and the United Kingdom also recorded considerable outgoing flows at ECU 6 600 million and ECU 7 000 million, respectively.

Table 7.6.
Accumulated net direct intra-European investment flows, 1980-84 in thousands of millions of ECU (1985 prices)

from/to	FRG	F	I	NL	B/L	UK	DK	IRL	E	P	GR	EC
FR of Germany	—	1.5	1.0	0.4	1.5	1.1	0.1	0.1	0.7	0.1	0.1	6.6
France	0.7	—	0.9	0.5	0.7	0.7	00.	0.1	1.0	0.2	0.1	4.8
Italy	0.2	0.6	—	0.5	0.8	0.2	0.0	0.0	0.1	0.0	0.0	2.5
Netherlands	-0.3	1.2	0.2	—	1.4	6.4	0.1	0.4	0.3	0.0	0.0	9.7
Belgium/Luxembourg	0.7	0.7	1.0	0.4	—	-0.1	0.0	0.0	0.1	0.0	0.0	1.9
United Kingdom	1.3	1.6	0.5	1.3	1.0	—	0.1	0.6	0.6	0.2	0.0	7.0
Denmark	0.0	0.1	0.0	0.0	0.0	0.2	—	0.0	0.0	0.0	0.0	0.4
Ireland	0.0	0.0	0.0	0.0	0.0	0.1	0.0	—	0.0	0.0	0.0	0.2
Spain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0	0.1
Portugal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0
Greece	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0
EC	2.7	5.8	2.7	3.1	5.4	8.7	0.3	1.1	2.8	0.5	0.3	33.3

Source: Morsink and Molle, 1991.

For incoming flows the country with the highest value was the United Kingdom (ECU 8 700 million). France is in second position with nearly ECU 6 000 million, mostly coming from the Federal Republic of Germany (ECU 1 500 million), the United Kingdom (ECU 1 600 million), and the Netherlands (ECU 1 200 million).

The core countries dominated intra-EC direct investment flows. ECU 27 600 million was invested in the core countries of the Community, which is about 83 % of the total. Indeed, the non-core countries hardly can be seen to invest abroad, preferring to let the core countries (in fact only Germany, France, the Netherlands and the United Kingdom) invest in their economies. That is especially true of Spain (a total of ECU 2 800 million) and Ireland (a total of ECU 1 000 million).

Special attention needs to be paid to the net direct investment flow from the Netherlands to the United Kingdom. Apparently, between 1980 and 1984, ECU 6 400 million (at 1985 prices) was invested by Dutch investors in the United Kingdom. Further investigation has shown that most of these investments were made by the group of mining, oil and chemical industries (Van Nieuwkerk and Sparling, 1985).

For the 1984-88 period an estimate has also been made of the accumulated net direct investment flows within the European Community.[2] The results are presented in Table 7.7.[3]

[1] The 1980-84 direct investment flows in the table have been derived from data in millions of ECU. In view of the uncertainties of this data set, the flows are presented in thousands of millions of ECU. This means that small direct investment flows (DI befing less than ECU 50 million) are presented here as zero-flows.

[2] It would have been better to create a data set for 1985-89, but data for 1989 however are not yet available. To get a comparable data set of five subsequent years, 1984 data were included in both the 1980-84 and the 1984-89 period.

[3] Direct investment flows in this data set have also been derived from data in millions of ECU. Given the uncertainties in the data sources, the flows are presented in thousands of millions of ECU, which causes small direct investment flows (DI less than ECU 50 million) to appear here as zero-flows.

In the 1984-88 period, total net direct investment flows within the European Community amounted to ECU 51 900 million (on average ECU 10 400 million a year). France claimed the highest outgoing flow of investments totalling ECU 11 500 million. The most important countries of destination are the United Kingdom (ECU 3 000 million), Belgium/Luxembourg (ECU 2 900 million), and Italy (ECU 1 600 million). The Netherlands also had a very high outgoing flow at ECU 10 500 million, of which the investment in the United Kingdom represented the largest share. The United Kingdom and the Federal Republic of Germany were just below ECU 10 000 million, mostly destined for France and Spain.

Total incoming flows into the United Kingdom amounted to ECU 12 000 million, which was the record during the 1984-88 period. Almost half of this came from the Netherlands. France with ECU 3 000 million is another important country of origin for the United Kingdom. France received a large amount of incoming investments as well, at ECU 9 500 million of which ECU 3.1 million came from the United Kingdom. An interesting position was taken by Spain: a total incoming investment flow of ECU 7 500 million, mostly coming from the Federal Republic of Germany, the United Kingdom and to a lesser extent, France.

Table 7.7.
Accumulated net direct intra-European investment flows, 1984-88 in thousands of millions of ECU (1985 prices)

from/to	FRG	F	I	NL	B/L	UK	DK	IRL	E	P	GR	EC
FR of Germany	—	1.7	1.4	1.2	1.0	1.2	0.1	0.1	2.1	0.1	0.1	9.1
France	0.9	—	1.6	1.4	2.9	3.0	0.0	0.2	1.3	0.1	0.1	11.5
Italy	0.4	1.6	—	1.0	0.8	0.5	00	0.0	0.6	0.0	0.0	5.1
Netherlands	0.6	1.3	0.9	—	0.8	5.5	0.0	0.3	0.9	0.1	0.1	10.5
Belgium/Luxembourg	0.0	1.4	0.3	1.0	—	1.3	0.0	0.0	0.2	0.0	0.0	4.4
United Kingdom	0.8	3.1	1.3	0.6	0.6	—	-0.1	0.4	2.1	0.5	0.0	9.3
Denmark	0.2	0.1	0.0	0.0	0.1	0.4	—	0.0	0.1	0.0	0.0	1.0
Ireland	0.0	0.0	0.0	0.1	0.0	0.1	0.0	—	0.0	0.0	0.0	0.4
Spain	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	—	0.1	0.0	0.7
Portugal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0	0.0
Greece	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	0.0
EC	3.1	9.5	5.7	5.4	6.3	12.0	0.0	1.0	7.5	1.0	0.4	51.9

Source: Morsink and Molle, 1991.

The core countries again held the largest share in intra-EC direct investment flows. A total investment of ECU 40 200 million was shared among them (77 % of the total). Arguably, Spain is becoming a member of the core country group. If so, total core country investments would amount to ECU 48 200 million, 93 % of the total. The non-core countries Denmark and Spain had some minor investments in the core countries. Investments among non-core countries were practically nil.

In the 1980s there were two trends in mobile intra-European investment. On the one hand there was an increase, due in part, as has been revealed in an explanatory model (Molle and Morsink, 1990), to changes in market conditions. The more the markets are integrated (trade), the higher the DI flow among countries. The effect of monetary integration in the EC could likewise be pinpointed: DI flows proved to be positively influenced by stable exchange rates. On the other hand, the completion of the internal market and the growing international competition are strong incentives to concentrate production in certain sectors (for instance metal products, electronic industries, component industries, office equipment) to reduce costs and create scale en-

largement, the better to face foreign competition. In some sectors this is more obvious than in others, dependent on the kind of products. Some products are highly protected by national rules, or need adaptation to the local needs of consumers (pharmaceuticals, food and beverages).

7.3. Headquarters

7.3.1. Foreign companies

New investments in corporate headquarters are becoming common among foreign companies because of the growing importance of decentralized world-wide company structures. In such transnational companies, the world-wide spread of manufacturing and R&D activities is reinforced by the geographical dispersal of head-office decision-making. The group of transnationals included Unilever, Procter & Gamble, Ericsson, NCR, Nestle, Electrolux, ABB, Hewlett-Packard and IBM. IBM joined in December 1990 when it decided to shift the entire HQ of its communication-systems division from New York to England in the course of 1991. Besides the dispersal of management tasks across the world, there is a tendency to concentrate management functions in one or two European HQ to cover a certain market area, instead of establishing regional head-offices in several EC countries. Companies will save costs because unnecessary duplication of facilities such as offices, computers and legal services, is avoided. Another advantage of concentration is more efficient advertising, marketing, etc. The strategy of concentration has already become more common among US than among Japanese companies.

Figure 7.1 shows that Belgium (Brussels) is the most important location for the European headquarters of US companies. With a view to the creation of the internal market, the seat of the European Commission in Brussels has recently attracted some headquarters and/or liaison offices of foreign firms. The UK and the Netherlands follow at some distance.

Unlike US companies, Japanese firms show a clear preference for Western Germany (FRG). This preference has to do with the historical events just after the Second World War (see Chapter 4). The growth of a Japanese business and financial centre (in Düsseldorf) and the presence of Japanese schools are a strong pull for other Japanese companies.

The United Kingdom and the Netherlands follow among the most important host countries for Japanese European headquarters.

7.3.2. Intra-European investments

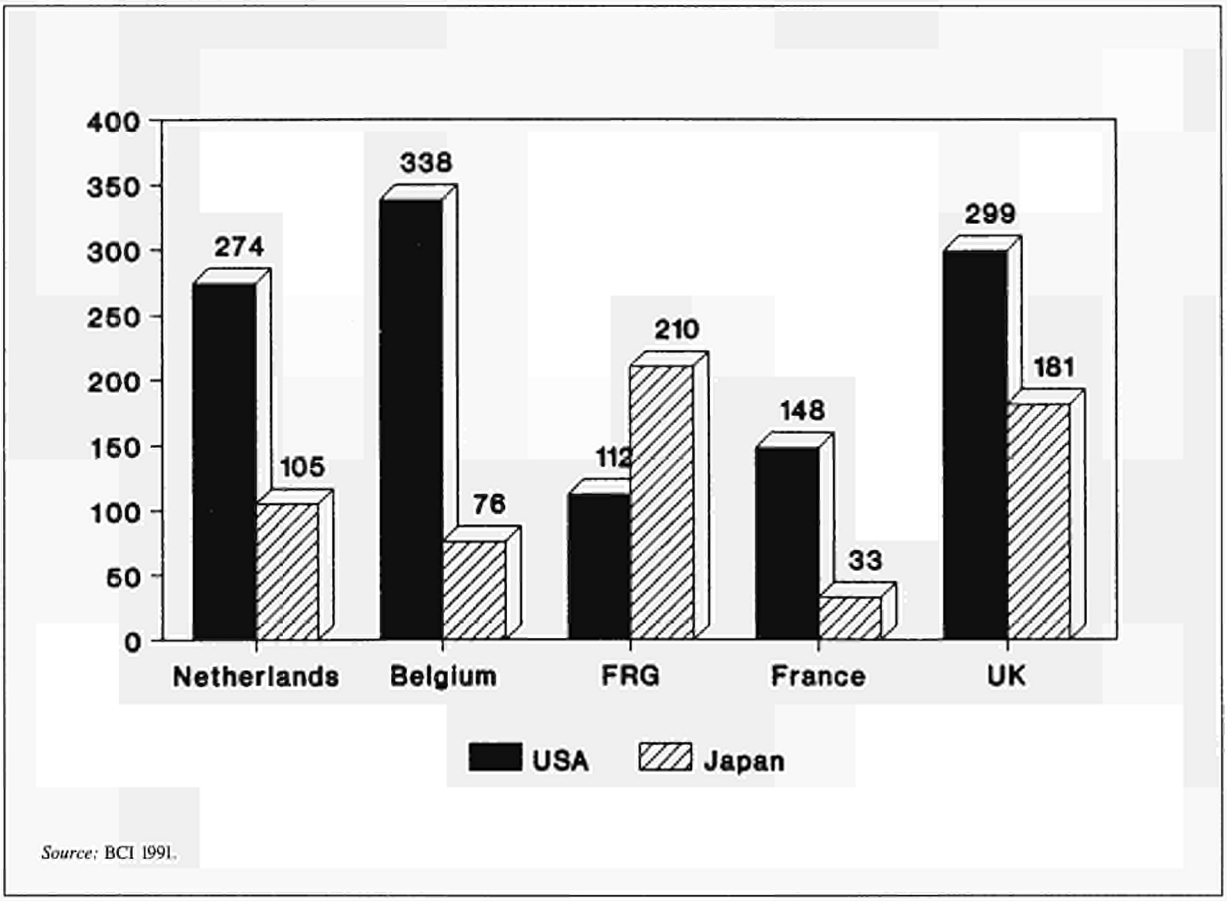
Headquarters of European companies have continued to be located in metropolitan areas, mostly in their country of origin. Like overseas companies, European companies can centralize their regional head-office activities in one or two European headquarters. Companies like Imperial Chemical Industries (ICI) illustrate the trend of centralization of management functions in the EC. ICI is to carry out a complete overhaul of its European management structure, in preparation for the completion of the single European market. Power and responsibility will be transferred from 15 'national companies' — wholly owned ICI subsidiaries in individual countries — to a new organization with its head office in Brussels. It will be supported by six regional centres (*Financial Times*, 7 September 1990).

7.4. R&D

The globalization of companies and the improved transport and communication networks have facilitated the globalization of R&D. Companies are increasingly locating their applied R&D next to production facilities to support the production of quality products and to develop new ones that fit specific local/regional needs. Basic R&D activities are located in the neighbourhood of the HQ or such knowledge centres as universities. These activities are initially attached to the mother company. A clustering around the HQ in metropolitan areas is the result.

Foreign companies in particular are to an increasing extent locating their (applied) R&D activities in parts of Europe. Foreign multinationals set up research labora-

Figure 7.1. European headquarters of US and Japanese companies in some European countries, absolute numbers



Source: BCI 1991.

tories to support product differentiation through product innovation and development. The types of research laboratory located abroad are units for technology transfer, undertaking minor product modifications and development work to adapt the product to local market conditions. Another motive to focus on the needs and requirements of R&D was to make it an element of the competitive advantage of corporations which happen to be multinational rather than national in character. To us, the main interest of R&D internationalization lies not so much in the consequences of globalized production as in the fact that to organize R&D on this (multinational) level is so much more complicated than on the level of national or sub-national firms.

The ability to tap pools of scientific and technical labour and the attraction of low-cost research bases have been seen as key elements in this process. In the post-war period, major companies began to rely less on international recruitment and migration and instead started to locate R&D laboratories abroad to gain access to rare research talents (Dunning, 1988). For example Nippon Seiko, Japan's largest producer of bearings, is investing in a European research centre at Rudington near Nottingham, central England. The move comes a year after NSK's take-over of United Precision Industries, the largest British-owned manufacturer of bearings. The same picture prevails for R&D of car-makers (Lung, 1991) and information industries (Krifa and Moulaert, 1991).

Statistical data on foreign direct investment are scarce. At the moment information is available only of Japanese companies. Table 7.2 shows the regional distribution of Japanese R&D facilities in Europe. Again the UK, Western Germany and France are the major host countries of R&D investments. Striking is the number of Japanese R&D facilities in Spain, all established as parts of a Japanese manufacturing enterprise in Europe.

Interregional moves of (semi-public) R&D establishments have been studied for France (Loinger, 1991). The units that had been transferred to a regional R&D centre (for instance Lyons, Sophia Antipolis) have been successful; others were not. The dense network in the Île-de-France region of R&D labs, headquarters, and such business services as mathematical programming was so strong a location factor that very few R&D establishments even considered moving to other regions.

7.5. Distribution

The emergence of logistics as a means of achieving competitive advantage is leading to a fundamental restructuring of the distribution service industry. The restructuring is mainly customer-driven. Increasing numbers of manufacturers and retailers are divesting themselves of their in-house distribution divisions, to use instead outside logistics specialists to provide them with transport and warehousing services. The main reason for the trend is that many companies look upon distribution as a capital-, fuel- and labour-intensive activity that lies outside their core activities. The trend for retailers and manufacturers to use outside logistics companies has been accelerated by the growing cost and complexity of modern logistics. The problem for the logistic suppliers is that their customers are demanding ever more expensive technology (automation, computer systems and facilities) and ever greater geographical coverage. The reason for the need for greater geographical coverage is the single European market. In preparation for the internal market, multinational companies are increasingly reducing the number of manufacturing plants, and those that remain are specializing. The consequence is that the logistic suppliers will have to provide pan-European transport systems, moving components and finished goods across the continent (*Financial Times* Survey, Distribution Services, 6 November 1990).

The distribution industry is having to change its role from that of traditional transport operator to that of manager of a whole range of supply-chain activities, including forwarding, consolidation, warehouse management, picking and packing, transportation and electronic data interchange. As a result, distribution facilities will be reorganized. The completion of the internal market makes a concentration of distribution activities from several EC countries in one or two strategic locations in Europe possible. The economic sectors which are most likely to develop European distribution centres are textile/clothing, paper, publishers, chemical and synthetic materials, metal products, machinery, electronic and electrotechnical products, means of transport, instruments and optical products, toys and sports articles (BCI, 1990).

Table 7.8 shows the location choices of American and Japanese firms for a European distribution centre in the period 1984-88. A clear preference for the Netherlands can be seen, followed by the United Kingdom, Germany and Belgium. These locations are characterized by a central location in the EC, an excellent transport and communication infrastructure and a highly qualified transport and distribution sector (NEI, 1990).

7.6. Producer services

As a result of the deregulation in the financial sector, the growing internationalization of companies (clients) and the developments in telecommunication and computer networks, financial services have become much more mobile than they were before. Deregulation has also made diversification into other financial services possible. These developments have increased the international competition and have stimulated economies of scale. Further concentration with a marked decrease in the number of small banks through mergers and acquisitions is the result.

Total US foreign direct investment remains largely concentrated on manufacturing. In 1985, services accounted for 24% of the total FDI in the EC 12 (Table 4.2). The

Table 7.8. American and Japanese distribution centres by country, 1984-88

	USA	
	Number of EDCs	Number of employees
Belgium	4	233
Germany	2	83
France	1	10
Ireland	4	240
Luxembourg	0	0
Netherlands	18	1 534
United Kingdom	6	554
Total	**35**	**2 654**
	Japan	
Belgium	1	14
Germany	2	240
France	1	41
Ireland	0	0
Luxembourg	0	0
Netherlands	6	334
United Kingdom	2	350
Total	**12**	**979**

Source: Kooijman, 1989.

most important investment sectors are finance, wholesale and trade.

Unlike US companies, the Japanese have always heavily invested in the European service sector. More than two-thirds of the total Japanese FDI was directed to the service sector in 1984. Compared with 1976, the share of commerce, and insurance and finance in total FDI had increased enormously (Table 4.3).

The expansion of financial services into other Community markets has largely side-stepped the possibility of direct entry into the new market. Insurance companies and especially banks have shied away from setting up new branch networks. Because it is very difficult to enter foreign markets, the financial services prefer to expand by acquisitions and/or working agreements with foreign financial services to greenfield investments. Greenfield investments in the EC by this sector are largely the result of investments by Japanese banks.

The preference of producer services for a metropolitan environment rich in information will be strengthened. In the locational distribution of financial services a stronger concentration of activities in the metropolitan areas (London, Paris, Frankfurt, Amsterdam, Milan, Madrid) will be the result.

In the 1985-88 period, 61% of intra-EC investments were directed to services, especially the finance and banking sector (44%). Trade, lodging and catering received 28% of all investments in services, followed by other services and real estate. From the annual figures the strong increase of services transpires, accounting for 51% in 1985 and 74% in 1988.

Like financial services, business services have the tendency to locate in metropolitan areas, close to their major clients/market area. Compared to the 1970s, nothing had changed in the locational preference of these services in the 1980s. Looking at the overall picture of the regional distribution of business services in

the UK, we observe that there is still a strong regional concentration in the metropolitan area of London (Howells and Green, 1988).

In France a similar pattern can be noticed. Producer services are concentrated in and around Paris. Through the years, that geographical concentration has been reinforced: certain service jobs with a low level of qualification have moved to the provinces, whereas highly qualified jobs continue to be concentrated in Île-de-France (Leo and Philippe, 1991). This fact, which is now well known, has been corroborated in other European countries by numerous empirical studies (see, among others, Illeris, 1989).

Along with a further concentration of producer activities in metropolitan areas, there is another trend of deconcentration towards the more remote regions. The introduction of telecommunication and computer networks enables companies to split up their back-office (standardized activities such as administration and other clerical activities) and front-office functions (headquarters).

7.7. Conclusions

As a result of economic growth and the growing internationalization and globalization of economic activity, mobile investments in the EC increased considerably in the second half of the 1980s. Notably Japanese investment rose. However, despite the surge in Japanese investment in the 1980s, it still does not match the weight of US investment.

The regional distribution of the US investment has not changed much through time. The UK, Germany, France and Italy were the most important host countries in the 1960s and 1970s as well as in the 1980s. The regional pattern of Japanese investment in the EC did change. In the 1960s the most important host countries were Germany, Spain and Belgium. On its accession to the EC, the UK became the most important host country, together with Germany. In the 1980s attention shifted away from Germany to France. The UK kept its position as most important host country.

In the 1960s and 1970s, the manufacturing sector was the most important investment sector for the Americans. Around three-fifths of their foreign direct investments were directed to this sector, while the Japanese invested only one-tenth of their direct EC investments in manufacturing. In relative terms that pattern changed in the 1980s. While the US invested a little more in services (from two-fifths in the 1970s to half the total amount in the 1980s), the Japanese invested more in manufacturing (from one-tenth in the 1970s to one-fifth in the 1980s). Commerce and insurance and banking are the most important sectors for investment.

Mobile investments are not only made in manufacturing and distribution, but cover also other company functions. Especially the decentralization of headquarters and applied R&D activities of foreign companies near major consumer markets have resulted in the latter type of mobile projects. The creation of the single market has given an impulse to that trend, besides leading to the rationalization and concentration of existing national facilities to serve a pan-European market.

8. Survey of factors influencing recent location decisions

8.1. Introduction

Ernst & Young carried out a wide-ranging survey of companies across Europe to determine the key factors influencing recent location decisions.[1] There were three components of the survey work:

(i) Seventeen interviews with multinationals, covering their location strategy and key influences, and the specific factors behind at least one recent location decision;

(ii) Seventy interviews with companies which had made a mobile investment decision over the last five (and preferably three) years;

(iii) Four interviews with experts within banks about their clients' location decisions.

Care was taken to ensure that the person being interviewed had been actively involved in the location decision being discussed. Semi-structured questionnaires were used for all interviews.

A total of 95 individual location decisions across eight countries and 19 regions were covered in the interview programme. The spread of projects over sectors and type of activity is shown in Table 8.1.

Table 8.1. Breakdown of location decision projects by sector and activity type

Sector	Number	Activity type	Number[a]
Electronics	24	Manufacturing plant	67
Cars and associated components	28	Head office or office function	13
		Research and development	6
Chemicals	14	Distribution	21
Textiles, clothing, shoes	4	Service activity, including software and financial services	15
Food and beverages	10		
Services	15		

[a] Some projects embrace two types of activity.

Further details of the sample, its selection, questionnaire design, etc., are provided in Annex II.

8.2. Strategic motivation for investment

Table 8.2 shows that the key motivation for most of the investments can be attributed to retaining or gaining market share. Companies both inside and outside the Community hoped to gain market share within the Community or within national markets by the new investment. For some companies outside the Community, the threat of losing market share due to the onset of the single European market (SEM) was central to their motivation for investing. For some component suppliers, setting up an operation close to a major customer was seen as a strategy to increase their market share with the major customer.

About 10 companies from outside the Community stressed that investing in Europe was seen as a means of protecting their market share against potential threats of tariff and non-tariff barriers after SEM. Three Japanese companies said that the main (or sole) reason for investing in Europe was SEM and fear of exclusion from the European market. One Japanese company said that, due to the uncertainties associated with SEM, they considered it wise to build a plant within the Community. One US company thought that business consultants in the US had exaggerated the threat of a potential 'Fortress Europe', but the company could not take the risk of not

[1] See for more detailed information: Ernst & Young, 1991.

Table 8.2. Main strategic motivation for investment

Category	Frequency of response (%)
1. '1992' and fear of Fortress Europe' (specified by respondent)	3
2. Europe was perceived as an important market, and company strategy is to invest within such markets	22
3. The investment was seen as a means of directly increasing market share	25
4. Shortage of capacity necessitated expansion or new investment	17
5. Europe-wide rationalization or coordination (usually this was due to SEM enabling a change in production, distribution, or necessitaing a European head office)	28
6. Motivation purely related to cost savings and increasing profits	2
7. Response not classified	3

investing in Europe. It appears that the uncertainty associated with the single market for non-Community companies and the corresponding threat of loss of markets was significant enough to encourage companies to undertake investments in Europe that otherwise might not have taken place.

The single market is also encouraging the mobility of projects through another mechanism. Some 20% of the manufacturing companies in the sample were companies with plants in several Member States and they were undergoing a process of reorganizing the spatial distribution of their production activities. Whereas previously a company might ideally have a plant in each country supplying the national market, the trend is towards single-product plants producing a product for the whole of the Community. Although this trend can be seen as an extension of the strategy pursued by many companies to rationalize their production on a national basis, it is the single market and its associated liberalization of movement of goods that is enabling this trend to develop internationally.

Other strategic motivations behind the mobile projects included a shortage of capacity, and the option to extend capacity either in an existing location or a new location; and a strategy to reduce overall costs by rearranging functions throughout Europe.

8.3. Country analysis

Respondents were asked to explain why particular countries were short-listed, or alternatively why they were not considered at all. This enables us to provide some general analysis relating to individual countries.

Germany was the country which was considered most frequently by respondents, followed by France and the United Kingdom.

(a) Germany

The main reasons given for short-listing Germany can be attributed to market-related reasons, such as proximity to the Community market in general, a strong national market, and proximity to key customers. Other attractive attributes of Germany mentioned by respondents were the superiority of labour skills in Germany, the low inflation rate and the expectation of a stable political environment despite changes of government. Germany was also considered by a significant minority of respondents to be located at the heart of Europe. Several companies said that this point was even more important with the unification of Germany and the opening of Eastern European markets.

The main reasons given for not short-listing Germany were related to high costs, particularly labour costs. Other specific reasons given for not short-listing Germany were the relatively short working week and the long holidays enjoyed there (both adding to labour costs).

(b) United Kingdom

The most important reasons for short-listing the UK were market-related, including a location within the

Community market, the substantial national market, and the presence of large customers. Other key reasons for short-listing the UK were the cost and quality of the labour force and the language, English being the preferred local language for the majority of American and Japanese respondents. Almost all Japanese respondents said that the extensive promotional campaigns to attract Japanese investors launched by the British Government in the 1980s were a major factor in short-listing the UK.

Reasons for not short-listing the UK ranged from perceived poor industrial relations, to prohibitively high land costs in the preferred region, notably the South East. One Japanese company said that the concentration of Japanese firms in the UK was high, and they preferred to be elsewhere. Another commented that they had not selected the UK, despite this being the 'obvious choice for linguistic and cultural reasons' because the Japanese Government was now encouraging Japanese firms to diversify their investments in Europe, rather than concentrate all investments in the UK.

A typical reason for not short-listing the UK was a stated preference to be on mainland Europe. For many of the investors from outside the Community, the project discussed was their second European facility, the first having been in the UK or Ireland. For their second investment, several of these companies said that they preferred to be on mainland Europe, and hence had not considered an expansion in the UK for their project. A few respondents representing US companies also expressed the opinion that the UK is sometimes perceived as 'less European' than other mainland European countries. As a consequence, in cases where an important motivation for the investment was to give the company a 'European' dimension, the UK satisfied this criterion less well than mainland locations. For a few companies, the UK was not a feasible option for reasons of logistics, due to the English Channel.

(c) France

The most significant reasons for considering France were market-related: products made in France enjoy the double benefit of a large domestic market and access to the rest of the Community markets. Some investors appeared to believe that the French home market was substantially less accessible from outside France than inside. Two companies said they had found difficulties penetrating the French market with non-French products, and that this was an important factor in their investment decisions. Products made in France carry an image of high quality, and this was given as a reason for preferring France to Spain by one company.

The high quality of labour was also given as a reason for short-listing France. Three of the companies interviewed in Sophia Antipolis said that the existence of the prestigious technology park where companies of high international repute were represented was a factor in their decision.

France also offers the substantial advantages of an excellent location, both because France is at the centre of the Community, and because road and rail connections are excellent for internal travel and travel to other Member States. Good telecommunications were another feature of France taken for granted by companies considering locating there. The low population density of France also means that it may be easier to find land than in more densely populated areas.

In cases where France had not been short-listed, the main reasons given were the French language (which was perceived by eight respondents to be more difficult than English), and that people in France were less willing to speak English than their counterparts in Germany, the Netherlands and Spain.

Another frequently mentioned reason was the French culture. In particular, many of the investors from outside the Community perceived the lack of 'cultural affinity' between their countries and France to be a barrier to placing mobile investments in France. One company had rejected France at a late stage due to language difficulties and a 'less sympathetic culture'. Another company said that France 'did not compare well with the Netherlands with respect to cultural similarities with the USA and style of doing business'.

(d) Italy

Italy was short-listed considerably less often than the three countries above despite it being the third or fourth largest economy. When Italy was short-listed, the main reason given was the large national market.

The chief reasons for not short-listing Italy along with the UK, Germany and France appeared to be that investment in Italy is perceived to be associated with considerably more risk than investment in the other three large economies. Language barriers were the most frequently cited reason for not short-listing Italy. Other reasons given for not short-listing Italy were that Italy is peripheral, causing logistic difficulties, that Italy is politically unattractive and that the attitude to work was not conducive to high productivity levels. One respondent summarized the problems with Italy as 'not central enough, little English spoken, and not close culturally'.

(e) Spain

The data from the interviews suggest that companies specifying a sizeable national market as a criterion are beginning to include Spain in their short lists. Thus as the fifth largest of the EC national economies, Spain is beginning to appear on the short list of potential locations. A number of firms mentioned that the Spanish market for many products is expanding as the economy grows, and hence represented a good opportunity as a new market for their products.

Aside from the potential created by an expanding market, the main reasons given for short-listing Spain are the low cost base for production and the high levels of incentives offered.

The main reasons for not short-listing Spain were given as peripherality: not being close to the core Community market caused logistic difficulties and hindered a close relationship with customers. Other frequently mentioned reasons were perceived language problems, and the lack of cultural affinity between Spain and Japan or the USA as felt by Japanese and American investors. One company said that it thought machine maintenance may be difficult in Spain, and another considered the 'educational infrastructure and technological understanding' insufficient for producing high-quality products. The poor image associated with the label 'Made in Spain' was also mentioned. Another reason given was the so-called 'latin attitude to work'.

(f) Benelux and Denmark

Denmark and the Benelux countries are less likely to be short-listed than the larger economies. The main reasons given for not considering the Benelux countries were the small size of their national markets: many companies (although beginning to view the Community as a single market) still wish to have a strong national market for their products. Qualitative information from the discussions suggests that Belgium is often perceived by investors as being at the heart of the Community, due to the presence of the Commission offices and because a number of major multinationals have their headquarters there and these were the reasons most often given for short-listing Belgium. The Netherlands is frequently considered for distribution projects in particular, due to the excellent port facilities and road network, and good accessibility to industrial areas.

(g) Ireland

Of the three periphery countries, Ireland appeared the most attractive. The key attraction of Ireland was the low cost base, formed by a combination of low labour costs, low levels of corporate taxation and generous incentives. Language in combination with the low cost base were often given as the key combination of reasons for short-listing Ireland. It was also suggested that Ireland was beginning to be recognized as a centre of excellence for the electronics and software sectors, and that there was a ready supply of skilled labour force there.

Main reasons for not short-listing Ireland were the peripherality and difficulties of distributing goods from Ireland. One company that had considered Ireland said that geography would make transportation costs high and could cause difficulties with delivery dates. The importance of personal preferences is also shown by the company which said that Ireland offered a tempting package, but the managers did not want to live there.

(h) Greece and Portugal

Greece and Portugal were short-listed for very few projects. In cases where these countries were short-listed, the main reasons were the anticipated low cost base associated with these countries, and the high levels of incentives offered.

The chief reasons given for not short-listing these countries included peripherality and the associated logistical difficulties or transport costs, general lack of infrastructure, difficulties with labour quality and the availability of particular skills. Some companies expressed difficulties of 'doing business' in countries with a small industrial base, together with a perceived lack of industrial tradition compared with countries such as Germany.

In some cases, specific business-related reasons, such as lack of service infrastructure for machine maintenance, were cited as reasons for not short-listing these countries. One company in the software industry said that locating in Portugal was not an option due to lack of legal protection against copying of software.

8.4. Analysis of location decisions

8.4.1. General aspects

Companies were asked how they took their location decisions. Where a choice between countries was involved, we established whether the basis of the decision process was first to choose a country and then the region or site within the country, or whether the final choice was between regions/towns of different countries. The findings were that in 75% of cases, a single country was chosen first, followed by the region or site. However, in 25% of cases, the final choice was made between regions in different countries.

During the interviews, companies were asked to distinguish whether particular location factors were either critical or important in the choice of country and then whether factors were important in the choice of region. This distinction was drawn because some factors, e.g. quality and cost of premises, may be extremely significant in the choice of town or region, but may have little influence on the choice of country. Studies which do not draw this distinction often overemphasize the importance of local factors in the overall decision.

A large number of potential factors were covered in the interview. The individual location factors were grouped together under seven headings, which will be analysed separately for each project type.

8.4.2. Manufacturing plant

Table 8.3 shows which factors emerged as most important. The results are also shown for location factors which may be of particular interest.

(a) Business factors

(i) Proximity to market

Of the individual factors, proximity to markets was by far the most significant in both country and region choice. In many cases the market refers to the Community in general, as many of the investments were made in an EC country as a defensive move to protect market share against potential loss due to the onset of the single market. In some cases this was implemented despite the knowledge that costs would be higher in Europe. Over half of those considering proximity to market as a relevant factor specified the market as being the Community in general. Some companies were making a single investment in the Community, from where they would supply their product to the whole of Europe.

Although access to the EC market overall is the most important factor, many companies also like to have a strong national market for their product, because of the uncertainty associated with whether the single market will emerge as a permanent entity. The national market was a key factor for 38% of manufacturing companies.

Proximity to major customers is another key factor at the country level. Some companies, particularly those supplying components, had invested in a country in order to increase market share through being physically close to major customers. The presence of major cus-

Table 8.3. Most important location factors for manufacturing plants

	Companies identifying factor as critical or important to choice of:			
	Country		Region	
	Cricital %	Important %	Critical %	Important %
Business factors				
Proximity to markets	34	51	19	31
Availability raw materials, components	9	23	12	17
Proximity major customers	17	14	18	6
Availability of site	5	5	17	17
National and local characteristics				
Financial assistance	11	20	19	20
Promotion/attitudes of government, etc.	6	19	9	23
Official language/linguistic skills	15	14	2	2
Corporate taxation	6	15	3	—
Labour factors				
Availability general	8	26	15	32
Quality	8	22	9	29
Availability skilled labour	9	19	11	22
Labour relations	6	17	5	6
Labour attitudes	8	14	0	17
Cost factors				
Cost land/premises	5	17	11	18
Cost of labour	11	22	9	17
Infrastructure				
Quality of road/rail services	23	20	15	32
Proximity to port	8	11	6	15
Proximity major airports	9	14	6	31
Quality telecommunications	5	12	2	11
Quality of life and personal factors				
Cultural factors	5	17	0	23
Schools for expatriate children	2	11	2	9
Educational facilities	0	6	2	12
Overall attractiveness of area	5	6	6	8

tomers was particularly important to investment in some regions, e.g. the West Midlands and Bavaria.

Proximity to market as defined by the company was a factor for companies in all regions. However, the market specified varied with region and sector. Companies in English-speaking peripheral regions such as Ireland and Scotland and in small countries exhibited a greater tendency to specify proximity to the Community market in general as relevant, whereas companies in southern peripheral countries such as Spain and Italy and in strong national economies such as France and Germany tended to specify the national market as most relevant. Most companies in Bavaria specified the local market as most relevant, reflecting the high number of companies in the electronics sector represented in the sample for Bavaria, and the observed tendency for electronics firms to congregate in localized areas.

(ii) Availability of raw materials and component supplies

The availability of inputs is relevant as both a country and a region factor. The sample included companies which had located new facilities close to raw material supplies. This trend was particularly prevalent in the

food and drinks industry. Examples include manufacturing of jam close to the supply of fruit, manufacturing of cheese close to the source of milk, and production of 'champagne-like products' close to grapes. In all of these cases the new facility brought production close to the inputs, thus reducing transport of foodstuffs and adding value in peripheral regions. The development of a specialized component-producing economy also attracts new investment in the end-product industry.

Both as a country and a region factor, the availability of raw materials was more prevalent as a relevant factor in the Spanish regions than in other regions, reflecting the relatively high representation of the food and beverages sector in the Spanish sample. Bavaria in Germany, and Ireland are two other regions where the availability of component supplies was often cited as a factor, both in the choice of country and choice of region. Again this reflects the industry linkages in the automotive industry and the electronics industry.

(iii) Availability of site

Availability of site tends not to be an important influence on choice of country, but is more so at the regional level: for one company the availability of a suitable speculative development was critical to the choice of region because the company wished to have a minimum lead time between commitment to site and starting production. However, availability of site can be a consideration in the choice of country for a small number of investments. Car plants, for example, require a large, flat piece of land of a particular shape and with good access to road and rail for delivery. Land meeting this specification is not available in all countries.

The availability of a suitable site appears to feature as particularly important to the choice of region for the traditional industrial regions such as the West Midlands and Nord-Pas-de-Calais, and also for peripheral regions with an industrial tradition such as Scotland. This finding suggests that the availability of a site may be a key factor in attracting new industries to traditional regions.

(b) National and local characteristics

(i) Financial assistance

Financial incentives were important in about 30-40% of cases, especially in the choice of region. Incentives are, of course, only offered in certain regions of the Community and it should be noted that only 50% of the projects covered in the interviews were located in qualifying areas. Incentives were clearly not important to companies outside these areas, and it is therefore interesting to observe that they were significant to a high proportion of projects located in qualifying areas.

Looking at individual countries, incentives were considered critical to the two investments made in Puglia, and both respondents said that government incentives in the form of preferential access to public sector contracts to companies with qualifying plants in the south was the only reason to invest in southern Italy. Incentives were considered critical or important to the choice of region for 60% of the investments in Spain, and for 40% of the investments in the UK.

Within some of the more prosperous regions such as Provence and Bavaria, where grants are only available in selected locations within the region, grants were considered important to the choice of town or site within the region. In the case of Bavaria, four of the companies contacted had been attracted to Munich as a 'high-tech' centre, and had selected locations within Bavaria but away from Munich to be in grant-attracting areas.

Good 'deals' on land purchased from local authorities were also considered helpful and relevant to the location decision for some companies in all regions.

The majority of companies citing incentives as important used the availability of incentives as one criteria in the selection of their short lists. The effect of this was that their final choices were often being made between areas offering incentives. Given this, no final decision appears to have been ultimately determined by the incentives offered, and other factors were more significant in the final choice. There were a number of cases where companies did not select the location offering the highest incentives.

(ii) Promotion and attitudes of government/local authorities

Promotion by and attitudes of government or local authorities is not an insignificant factor. The influence tends to be exerted in one of two ways. In some cases, the active promotion of a country or region made a company first think about locating there. In other cases, the care and attention given by national or local governments to potential incoming companies helped to tilt the balance at the final decision stage. At this late stage, the differences between the final locations under review, in terms of business and cost factors, are often quite small. In these circumstances the help and welcome provided by the authorities can tilt the balance.

(iii) Language

The official language was significant to the choice of country for Ireland, the UK and the Netherlands. This factor was considered critical to all manufacturing projects in Ireland identified in the study, and critical or important to 80% of investments in Scotland. Two-thirds of companies which had selected Limburg said that the bilingualism of local people, and particularly their capabilities in English, was critical to the location decision. Language capabilities, meaning facilities in English, were also critical to two investments in Germany and important to one investment in Spain.

(iv) Image

The image conveyed by a label 'Made in . . .' was not on the original list of factors covered in the questionnaire, but was cited by at least four companies as relevant to their choice of location. Companies mentioning this factor had chosen: Germany in preference to Italy; the UK in preference to Greece; France in preference to Spain; and the Netherlands in preference to two peripheral regions. In all these four decisions the 'image' factor came into prominence at a late stage in the investigation, and all were cases where the decision was narrow on other factors.

(c) Labour factors

The data suggest that while labour factors play an important role in the choice of country, they are often more critical to choice of region. The relevance of labour factors to the location decision depends on the type of labour required in the manufacturing process.

(i) General availability of labour

Overall, for manufacturing, it appears that the general availability of labour is more important than the availability of particular skills to the location decision. Several companies said that one of their criteria for short-listing potential locations was to identify towns of a certain critical size (the critical size depended on the planned number of employees). Some companies mentioned a pool of unemployed workers was a critical criterion, because the jobs offered by the investment were low paid and carried out in unpleasant conditions.

In some regions the general availability of labour was the most significant of the labour factors, and in other regions labour quality appears to dominate. Labour availability is a significant factor to half or more of companies selecting Nord-Pas-de-Calais and Scotland; whereas labour quality was important to half or more of companies selecting Germany and Italy. Labour availability and labour quality were considered equally important by companies locating in Ireland and Noord Holland. Labour factors appear particularly unimportant to the choice of Spain and to the choice of region within Spain.

(ii) Labour attitudes and quality

Within the general criterion of labour availability, particular characteristics or attitudes of the local labour force were sought, and a certain minimum quality of labour was required for the investment to be profitable. Examples of characteristics sought include the willingness to work shifts (car industry) and the willingness to observe high standards of hygiene (food industry).

(iii) Labour relations

Labour relations were important and sometimes critical to rejecting certain areas. This factor operated chiefly on the basis of reputation, in that certain countries such as Italy and the UK were excluded from short lists on the

grounds of a poor reputation for industrial relations. Good labour relations were particularly important for Germany — over three-quarters of companies selecting Germany said that labour relations were relevant to the decision. To a lesser extent this factor also operates at a regional level, with certain regions, for example Merseyside in the UK, being rejected on the basis of reputation. Few companies, however, investigated in depth the number of industrial disputes in their industry in short-listed regions.

(iv) Specific industry skills

The availability of specific skills sought was specified as a factor in choice of region and country for several decisions. This factor was most significant to choice of country for Germany, the Netherlands and Ireland, and to choice of region for the regions of Northern Italy. The availability of labour with experience in the industry was particularly relevant to the West Midlands, Catalunia and Veneto.

Companies specifying skills required for manufacturing were particularly prevalent in the electronics sector. The range of skills specified included high-level engineering skills (five companies), management skills, and experienced computer people. Skills specified in the textiles sector included sewing skills — one specialized area had a finite pool and there was much competition for this labour. One company in the automotive components sector explained that their recruitment policy was to take only people with experience in the industry, as they required people who were used to the fluctuating demand patterns characteristic of the industry.

(d) Cost factors

The most important cost factors for manufacturing projects are the cost of labour as a country factor and the cost of land or purchased premises as a regional factor. There are significant differences between countries on labour costs, and to some extent between regions within countries, and this explains why labour cost factors were important in about one-third of cases. The only other cost factor relevant as a country factor to more than 10% of decisions is the costs of transport. Companies with high-volume, low-value products said that transport costs were critical to their location choice. Some companies commented that high transport costs associated with a peripheral (and otherwise low-cost country) such as the UK were important in ruling out otherwise attractive locations.

Cost factors were significant to the choice of country for all investments in Ireland and Scotland, and to around 70% of projects in the West Midlands and Ireland. Labour costs were important as a country factor to all of the decisions to locate in Ireland and to half of the decisions to locate in Limburg and the UK. Labour costs were also important to the choice of Nord-Pas-de-Calais in France. As a regional factor, cost of land was most important to projects in Limburg, the West Midlands and Andalusia, being important in around half of the decisions. Cost of land was critical as a country factor in three cases where the final decision was between regions of different countries. Transport costs were most important as a country factor to companies which selected Limburg.

(e) Infrastructure

(i) Quality of road and rail services

Most manufacturing plants require good infrastructure to obtain materials and components, and to deliver the product to customers. Good road or rail connections were relevant in the location decisions of half the projects overall, but were a critical factor in the choice of country for 75% of projects in the Netherlands. Good road and rail facilities were relevant to the choice of region for over 75% of projects in Nord-Pas-de-Calais and Cataluna, and to over 60% of projects in the West Midlands and Bavaria.

(ii) Proximity to a port

Proximity to a port was a relevant factor for some companies which received a substantial proportion of their inputs by sea, mainly from long-distance sources. Proximity to a port features as a factor in the choice of coun-

try for only 20% of projects overall, but for 75% of projects in the Netherlands, and for 50% of projects in Puglia and Nord-Pas-de-Calais.

(iii) Proximity to a major airport

Proximity to a major airport was considered important for a substantial number of companies, particularly those which supplied small components by air. Companies of foreign parentage also wished to be near an airport to ease visits between head office and the plant. A Japanese company stressed that direct flights from the local airport to Japan was useful for people and goods transported by air. Other companies located near major airports described the situation as 'a bonus' but not relevant to the location decision.

Proximity to a major airport can only be a location factor for regions where there is a major airport. The major airport in a region may in turn become a country factor in cases where the final choice is between regions in different countries. In France, proximity to a major international airport was important to the Provence (Nice airport) and Île-de-France (Paris airports). In Germany the presence of Munich airport was a region or country factor for half of the projects, although some companies said that this was a bonus rather than a location factor. Proximity to major airports was a location factor for all of the projects in Nordrhein-Westfalen. In Spain, proximity to Barcelona airport was a factor in the choice of region for 80% of projects in Cataluna. This factor was not considered important to any of the investments in Italy, and to only one project each in Andalusia and the West Midlands.

(iv) Quality of telecommunications

Quality of telecommunications was relevant to almost 20% of decisions as a country factor. Two sorts of reason were given for this. One company in the pharmaceutical sector said that good telecommunications were important for receiving orders, as goods, when ordered, were usually required urgently. Several companies said that good telecommunications were important for 'doing business in general', for example, contacting suppliers, obtaining information, etc. Two Italian companies in Lambardia said that quality of telecommunications was relevant to the location decisions and poor telecommunications were a factor in discouraging projects in southern Italy.

(f) Quality of life and personal factors

Quality of life and personal factors are perhaps less important for manufacturing than for other activities, as the majority of people working in a production unit will be recruited locally. Where these factors are relevant, they are more often considered important rather than critical. Quality of life factors overall were relevant to almost 30% of location decisions for manufacturing activities.

One company for which these factors are critical is a multinational company with plants in several European locations. This company said that the overall attractiveness of the area to people who may relocate was critical because company policy was to move managers around throughout Europe, and they could not afford the risk of an 'unpopular posting'. Another company with a similar management policy gave the difficulty of attracting good management to a particular plant as the main reason for closing the plant. The overall attractiveness of the region/area to staff who may relocate was most relevant to decisions to locate in Spain, Germany and France, and less relevant to decisions to locate in Ireland and the UK.

The most influential of the personal factors for manufacturing activities is the 'cultural affinity' felt towards the potential host country by the investor. This factor was particularly important to companies locating in the UK, Ireland, the Netherlands, Germany and Spain.

8.4.3. European head office and other office functions

European head offices form the majority of activities included in the group. It should be noted that only 13 projects were covered by interviews in this category, and the conclusions must therefore be treated with caution.

Most of the companies in this category selected locations in major cities. The process of location selection is generally different to that in other categories: for many decisions in this category the final choice was between two or more cities in different countries, whereas for the other categories, the choice of country was usually made first, and then a location within the country selected. A typical short list for European head offices comprised London, Paris and Brussels, and occasionally Amsterdam or another large city.

The most important location factors are shown in Table 8.4.

Table 8.4. Most important location factors for offices

	Companies identifying factor as critical or important to choice of:			
	Country		Region	
	Critical %	Important %	Critical %	Important %
Business factors				
Proximitiy to markets	31	15	0	0
Presence major customers	8	15	8	8
Supporting services/R&D	10	10	5	15
National and local characteristics				
Corporate taxation	31	8	—	—
Official language/linguistic skills	31	15	0	0
Cost factors				
Cost land/premises	31	8	31	8
Infrastructure				
Quality of telecommunications	15	15	39	15
Proximity to major airport	23	15	46	15
Quality of road/rail services	8	31	46	15
Quality of life and personal factors				
Cultural factors	15	8	23	8
Schools for expatriate children	8	15	15	15
Leisure/sporting facilities	8	23	8	15
Overall attractiveness of area	23	15	39	23

(a) Business factors

As with manufacturing projects, proximity to the market, notably the Community in general, is a very important factor. Presence of major customers, a related factor, was also important.

In two cases, American companies had previously carried out European coordinating functions from the US. The mobile projects involved the relocation of these functions to Europe. Several factors contributed to the move of the European coordination activities from the US to Europe, the most important of these were to be close to the customers in order to provide a faster response to enquiries, better service and improved after-sales care. The expected increase in competition from within Europe associated with the single market also convinced the companies that a high-level European presence was essential.

It is also interesting to observe that Brussels acted as a magnet, especially in drawing up short lists. It is seen as the 'centre' of Europe by a number of companies, both on geographical grounds and because the Commission is located there. The pull is more the image of Brussels as the political centre of Europe, rather than

the need to have regular dealings with the Commission. The fact that Belgium is a small country can also help, if a company is looking for a location for its European headquarters away from major, national subsidiaries.

At regional level, the availability of supporting services and R&D facilities was important. The prevalence of this factor reinforced the preference for a major city location.

(b) National and local characteristics

The official language is a very important factor in choice of head offices, being critical to 30% of decisions and important to a further 15%. A common requirement for many head-office projects was for the working language to be English, thus creating a preference for the UK, Ireland or a country where good language skills could be anticipated.

Corporate taxation was also critical for 30% of decisions and important for a further 8%. This factor was highlighted, in particular, by companies choosing Ireland, Germany and Belgium. Financial assistance was only important in two cases.

(c) Labour

Local labour factors were not particularly significant for office activities. In some cases the relatively low level of attention given to this factor is explained by the large proportion of staff drawn from company head office. Another explanation is that as most of the short-listed locations are capital cities or major population centres, few difficulties with labour supply were anticipated. At the regional level, the most influential labour factor is the availability of specific skills. Skills specified as sought for this activity include people with computer skills and people with linguistic skills. Labour relations and labour attitudes do not feature as significant factors in the location decisions for office activities.

(d) Cost factors

Cost factors overall are less important than other factors to the choice of location for a head office, but certain costs, notably for premises, can be influential in selecting both the country and region. One company said that 'value for money' or quality accommodation at a reasonable price was sought. For some companies the very high cost of accommodation in London was a discriminating factor in selecting a location other than the UK. The cost of labour was critical to location choice in two cases.

(e) Infrastructure

At regional level, the quality of infrastructure was the single most important factor group. Within this category, proximity to a major airport, the quality of road and rail services, and the quality of telecommunications stand out as the most influential factors.

Air services were required mainly for personnel to travel between European subsidiaries, the parent country and the European head office, but air, road and rail services were also required as part of the attractiveness of the region to staff. One respondent explained that it was important for staff to be able to travel, partly for business reasons but mainly for leisure. Another respondent stressed that although road and rail infrastructure were not important for business reasons, a location with poor physical infrastructure would not be acceptable to the company for quality of life reasons.

Good telecommunications are an influential factor for office activities. Often this factor was used at the short-listing stage to exclude countries lacking (or perceived to be lacking) in telecommunications of a certain standard. One company stated that a high standard of telecommunications was required for business purposes, but also the quality of telecommunications for residential use by their staff had to be of a high standard, as the people relocating would be used to high standards of telecommunications. The respondent claimed that the quality of telecommunications services throughout Europe was lower than that which they were used to in North America.

(f) Quality of life and personal factors

At country and regional level combined, the most important group of factors is quality of life and personal factors. Personal preferences were particularly impor-

tant to the choice of a region, because many of the factors in this group vary greatly within Member States.

Most important is the overall attractiveness of the country or region to personnel who may relocate. This factor is particularly important for locating high-level office activities because of the relatively large proportion of staff who may be expected to relocate to the new location. For instance, and not untypically, one company relocating a high-level office function from the United States to the Community stressed that retaining the existing team was most critical to the company, and hence the new location had to be attractive and appeal to its staff. Cultural, leisure and sporting facilities were important in the context of the overall attractiveness of the region to staff who may relocate. This factor often led companies to short-list capital cities in preference to provincial areas.

Cultural factors, or the attitude of the investor to the host location, were particularly important at the regional level. Two American companies commented that it was particularly important for both staff and their families to feel comfortable in the new location. In this context, the language spoken in the area was important for both business and personal reasons.

The availability of schools for expatriate children was a critical factor in five cases, and absence of suitable schooling excluded a number of areas from consideration.

8.4.4. Distribution

Activities included in this group include dedicated distribution centres, together with combined assembly and distribution activities where the considerations for distribution were a major concern in the location selection. In this category, 21 projects were covered, so care must be given to interpreting the conclusions.

The most important factors are shown in Table 8.5.

Not surprisingly, proximity to the market was considered a critical or important location factor for 95% of distribution centres. The market specified was mainly either the whole Community or the national market of the country selected.

The key location factor for many of the distribution projects was a central location. This imprecise concept was specified by most of the respondents of distribution activities, with respondents defining the term according to the area served by their distribution centre. One company explained that the location needed to be 'central' because the company intended a single centre to serve the entire Community market.

The official language and linguistic skills were important factors in choice of country. Language skills were important, as orders and enquiries were often taken from several different countries in different languages.

The quality of labour appears as relevant to the choice of country for half the projects and the availability of specific skills important to 40% of projects. Quality and attitudes of labour were important to distribution projects given the efficient and quick turn-around required and the need to process a large number of orders. Data processing, fork-lift trucks and general management were the main skills required.

Apart from distribution costs, which are already reflected in the importance of proximity to market, cost factors do not emerge as especially significant in the choice of location for distribution projects. The most relevant cost factors for distribution activities are the cost of purchased land and premises or the cost of rented premises.

Distribution centres need access to appropriate infrastructure, and this was regarded as critical to the choice of country for 55% of projects and to the choice of region for 45% of projects. The focus on country or regional factors depended chiefly on whether the distribution centre was to serve the entire Community, or was a more localized centre serving one or two countries. The quality of telecommunications was significant due to the requirement for good customer/order servicing.

Table 8.5. Most important location factors for distribution activities

	Companies identifying factor as critical or important to choice of:			
	Country		Region	
	Critical %	Important %	Critical %	Important %
Business factors				
Proximity to markets	50	45	30	30
EC market in general	35	15	20	5
Proximity to major customers	15	5	35	15
National and local characteristics				
Official language/linguistic skills	30	20	5	5
Financial assistance	10	30	25	15
Promotion/attitude government, etc.	5	30	15	25
Corporate taxation	5	20	—	—
Labour factors				
Availability of local labour	0	35	15	20
Quality labour	25	25	10	25
Availability skilled labour	10	25	20	20
Labour attitudes	5	30	0	20
Cost factors				
Cost land/premises	5	20	10	10
Cost of labour	5	25	5	20
Infrastructure				
Proximity major airports	25	20	25	25
Quality road/rail	45	20	35	15
Quality telecommunications	20	15	10	10
Quality of life and personal factors				
Cultural factors	0	25	0	20
Schools for expatriates	5	25	10	25

8.4.5. Service activities

Our interviews in this sector were very largely restricted to financial services and software. The location factors of most significance are shown in Table 8.6.

Business factors are important to the location decisions for service function. This is due to the nature of the activity: service functions tend to follow the industries they serve, hence proximity to market — whether local, national or the whole Community — features as a relevant factor in almost all of the projects identified.

In the financial services sector, the strategic motivation for many projects was to follow existing clients to new locations. For example, a Dutch bank had located in southern Spain because many Dutch clients had set up operations there. Similarly, a British accountant had established a new office based on serving British clients who had invested in northern France.

The location decisions of companies offering software services exhibit a similar pattern. Many of the projects identified involved companies setting up new facilities close to new or potential customers as a means of developing their market share in the new location.

The availability of specific skills is the most frequently mentioned labour factor for service sector activities. Specific skills sought were mainly IT professionals with experience of software activities and accountants and legal personnel in the financial services sector. In one

Table 8.6. Most important location factors for services

	Companies identifying factor as critical or important to choice of:			
	Country		Region	
	Critical %	Important %	Critical %	Important %
Business factors				
Proximity to market	20	47	0	40
Presence of similar firms	13	0	27	0
Presence major customers	13	13	13	7
Supporting services/R&D	13	7	20	27
National and local characteristics				
Financial assistance	7	13	7	13
Corporate taxation	7	13	—	—
Promotion/attitude of government	13	27	7	13
Official language/linguistic skills	40	0	0	0
Labour factors				
Quality labour	13	13	7	20
Availability of skilled labour	20	7	27	13
Cost factors				
Cost land/premises	13	7	20	13
Cost of labour	7	33	13	7
Cost of rented premises	13	20	20	7
Infrastructure				
Quality of telecommunications	27	7	27	7
Proximity to major airport	7	13	7	40
Quality road/rail services	7	0	27	7
Overall attractiveness of area	13	13	13	20

case the existence of special 'swap teams' in London for the banking industry was a critical factor in the location decision.

The two cost factors of some significance are those for land/premises, which are particularly important in choice of region, and the cost of labour which is a significant country factor.

Infrastructure factors are considerably less important to service activities than to all other activities investigated. The exception to this pattern is perhaps the quality of telecommunications: this was specified as critical to 27% of decisions. One company specified that good telecommunication facilities were crucial in order to link into the company's world-wide communications network. Another company specified that telecommunications services had to be sufficiently reliable to facilitate the transfer of data between offices. Most of the respondents in the service sector said that they could not have contemplated operating in an area where telecommunications facilities were not up to a certain (unspecified) standard. However, another very intensive user of telecommunication said that its requirements were sufficiently great that it could operate anywhere by setting up dedicated microwave or satellite links. The same company also specified that telecommunications costs were relevant to a location decision, indicating that the facilities are required to a certain quality but at a reasonable cost.

Given the dominance of the proximity to the market or particular customers to location decisions in this activity group, it is unsurprising that quality of life factors appear less important than other factors. As with office activities discussed above, the main factor within this

group is the expected overall attractiveness of the area to staff who may relocate. But this is less important than to office activities due to the smaller proportion of people who are likely to be relocated and the high proportion of staff to be recruited locally.

8.4.6. Research and development facilities

The sample for projects in this activity is very small. The key location factors are shown in Table 8.7.

The importance of proximity to markets or similar firms can be explained by the strategy behind many of the new R&D centres for the sample interviewed. The strategy typically was to increase market share through increased interaction with customers. A number of the projects covered were non-European and the nature of the R&D to be undertaken was of a local market development type.

A country's reputation for R&D was generally very important in choice of country, while the desire to be close to a university or science park was critical in the choice of region in two cases.

Two companies seeking a research base in Europe had considered several countries, and said that the way they were treated by both the national and local promotional agencies influenced their choice of country. Financial incentives offered were also important to the location choice in these two cases.

Table 8.7. Most important location factors for R&D activities

	Companies identifying factor as critical or important to choice of:			
	Country		Region	
	Cricital %	Important %	Critical %	Important %
Business factors				
Proximity to markets	60	20	60	40
Presence of foreign companies	20	0	20	0
Presence similar firms	20	0	0	0
National and local characteristics				
Promotion/attitude government	20	40	—	40
Reputation for R&D	60	20	—	60
Financial assistance	0	60	—	0
Close university/science park	—	—	40	40
Labour factors				
Availability of local labour	0	20	40	40
Quality of labour	20	40	20	60
Availability specific skills	0	40	20	0
Labour experience industy	20	0	20	20
Cost factors				
Cost land/premises	40	0	40	0
Cost of labour	20	0	20	20
Quality of life				
Educational facilities	0	20	0	20
Overall attractiveness	0	0	20	20
Leisure/sporting/cultural facilities	0	0	0	40

Labour factors, particularly the availability of specific research skills, are usually seen as critical factors in the choice of location for R&D facilities. The sample provides support for this with four of the five companies finding the availability of specific skills or industry experience crucial to their investment at either country or regional level. The overall quality of labour was also a relevant factor for many of the decisions, either at country or regional level.

Of cost factors, the cost of land and premises were most important, particularly to the choice of region. The explanation for this is that land costs are the most important cost item that can be varied. One company said that the cost of land in short-listed regions was critical to the choice of country, because it was the only capital cost item that would vary with location. This focus on land cost also explains the availability of a site as an important business factor: one company said that the availability of a suitable, competitively priced site in a research environment was important to the final choice of country.

Infrastructure requirements are not usually central to the location decision for R&D facilities. However, for two companies in this activity group, proximity to an airport or the quality of roads were important to maintain contact with their country of origin, or to obtain materials.

In the sample of companies interviewed in this activity group, the important quality of life factors are educational facilities (both country and regional level) and the availability of sporting and leisure facilities. In one case, the attractiveness of the local area (Sophia Antipolis) was clearly very important in the final selection.

8.5. Industrial clustering

Respondents were asked to comment on the extent to which their location decision was influenced by the presence of companies carrying out similar activities in the region selected. Respondents to whom the presence of similar activities was a relevant factor in the location decision were then asked to specify what aspects of industry presence were relevant to their decision, and whether the expectation of being able to recruit labour with experience in the industry was a factor in the location decision.

Table 8.8 shows the proportion of companies saying that the existing presence of similar activities in a region was a factor in their location decision, and for those able to specify, the aspect of existing activity that was important to the decision.

Table 8.8. Existing similar activities as a location factor

Response	Yes, a factor (% of those answering)	Main reason given (%)		
		Labour	Inputs / customers / competitors	Professional services
Activity type				
Manufacturing	49	32	50	18
Office	30	100	0	0
Distribution	56	25	50	25
Services	54	60	0	40
R&D	40	0	100	0

It can be seen that around half the companies were influenced in their location decision by the desire to be close to companies carrying out similar activities. The data suggests that the presence of similar activities as a location factor is most important to manufacturing, distribution and services activities, and least important to high-level office functions. This finding may appear at first sight to be in conflict with the observable trend for head offices to congregate in very limited geographical areas, such as capital cities. The main reasons that head-office functions tend to cluster in particular areas is that they are attracted to other attributes of these areas, such as proximity to a major airport and the cultural attractions required to attract staff to relocate. Sometimes head offices may require specialized services, such as accountancy and legal advice, that are more likely to be found in an area with a strong presence of head offices.

For manufacturing and distribution activities, the most important reasons why industry presence is important are the enhanced availability of inputs of either components or raw materials, or customers or competitors. Around half the respondents naming industry presence as a location factor said that the main reason for this is that components are more likely to be available in an area where other companies require similar products. This was considered an important factor as it minimized delivery times and transport costs and facilitated industrial cooperation between component suppliers and clients. Several companies mentioned that they wished to be located in an area with adequate service infrastructure, used to providing specialized services to their industry. Such services may include specialized maintenance services, transportation or storage facilities, as well as financial or legal services. In electronics and other high-tech industries, a number of firms were conscious of the need to be located in a recognized 'centre of excellence', or to be close to prestigious competitors.

For office activities, all of those stating that the presence of similar activities was a factor in the location decision and specifying why industry presence was important, said the presence of labour with appropriate similar experience was the most important reason. One example of this is a European head office that favoured Brussels because multilingual staff were available and used to working in several languages in a European head office.

For service sector activities, respondents said that labour with experience in the industry together with the availability of specialized professional services were the main reasons that the presence of similar industry is relevant as a location factor. Often this was associated with specialized labour skills, such as banking or information technology, and facilities for subcontracting work or employing temporary staff.

The tendency for clustering was most clearly observable in the high-tech sectors of software and electronics. The main regions where specialization was cited as a location factor are Bavaria, Scotland, Ireland and Sophia Antipolis in Provence.

8.6. Conclusions

From the survey analysis the following key conclusions can be drawn on the factors influencing location decisions.

Overall comments

(a) Considerable diversity in influences

For a few projects, there was a single factor that stood out as the key influence on the decision. However, for the majority of decisions, the outstanding attribute of a winning region was that the region had a particular combination of characteristics that best satisfied the criteria of the specific project. There was a very considerable diversity in the key influences on location decisions between the sample projects. No simple model can be constructed of location determinants.

(b) Timing of influence

Location factors can have an influence at different stages of decision-making. For example, a company may short-list a number of locations on the expectation of there being low overall costs; the final choice may be

between two or three locations with similar low costs, and then qualitative factors can be critical to the final choice. Similarly, a short list may contain only areas that are known to specialize in a particular activity type, and the deciding factors between these similar locations may be the attractiveness of the area to staff who will relocate.

(c) Direct cost factors less important than other factors

A key finding across the various project types analysed is that other factors are typically more important than direct cost factors in the final location decisions. This does not imply that cost factors are unimportant. Cost factors clearly dominated some location decisions, and even when other, more subjective factors were seen as more important in the final choice, most companies still recognized that there was an important trade-off to be made between them and any potential cost disadvantages. Furthermore, it needs to be recognized that there is an implicit cost or profit dimension to more subjective factors. For example, good quality labour clearly feeds into costs; being close to markets can provide benefits of market penetration as well as helping to reduce transport costs.

The key location factors for mobile projects are:

(i) Proximity to market emerged as a very important location factor for all types of activity. Not surprisingly, it is a particularly important factor for manufacturing and distribution projects.

(ii) Quality and availability of labour, including skilled labour were important to a significant minority of manufacturing, distribution and service projects and to a majority of research and development projects. For some more traditional manufacturing industries, the key question on labour tended to be whether there was a sufficient pool of labour available with an industrial background, and willing to work shifts or conform to standards, etc. The availability of specific skills tended to be more important in location decisions in electronics, software, financial services and research and development.

(iii) Quality of transport infrastructure was, not surprisingly, a dominant location factor for distribution projects. Even with manufacturing projects it was important, and was identified as a critical factor for over a quarter of such projects. For many international head-office projects, proximity to a major airport was extremely important — short lists were often drawn up with proximity to an airport as a fundamental requirement.

(iv) Quality of telecommunications was important to a significant minority of office, service sector and distribution projects. For many projects, the standard services available had to be up to a certain (not always clearly specified) level, and areas where telecommunication was below this critical level were not considered.

(v) Quality of life and personal factors are very important in head-office location decisions, especially in the choice of region. They are also important factors for the other activity types. These factors are particularly important for projects of all types where a substantial number of managers or employees are expected to relocate or where companies are looking to recruit from wider national or international labour markets. It should furthermore be remembered that the quality of air, road, rail and telecommunications, which we have already separately identified as important location factors, also affect the quality of personal life, and were taken into account by companies concerned about the attractiveness of an area to people who may relocate.

(vi) Cultural affinity with the host country and language skills were important considerations for a significant minority of projects. These factors were particularly important to many US and Japanese investors, especially to those making their first substantial investment in Europe. The UK and Ireland gained some advantage from these considerations. However, from our interviews we believe these factors may be becoming less important than they used to be, especially for US companies. Thus we observed that the Netherlands, Bel-

gium, Germany and Spain were still considered by companies which were looking to use English as the working language. A number of companies also said that 10 years ago they would have given more prominence to 'cultural affinities' and the English language than they do now — indeed there has been some tendency for US companies which established their first facility in the UK or Ireland to look positively to establish their second facility on the continent and thus to gain a more 'European' image.

(vii) Promotion by national and local government can help to get a region onto a short list. More importantly, the attitudes of national and regional bodies can be very significant in influencing the final location choice when the differences between the locations which have been short-listed are fairly narrow.

(viii) Around half the companies interviewed were influenced in their location decisions by the desire to be close to companies carrying out similar activities. This influence was prevalent among manufacturing companies as these companies saw that the choice of component suppliers and specialized maintenance services would be greater in an area where similar products are currently manufactured. Component suppliers also preferred to be located close to similar companies, both for supply of intermediate goods and for access to major customers.

The cost of labour, and land or premises were the two most important direct cost factors, but neither were identified as either a critical or important factor by a majority of respondents in any of the five activity types analysed. Corporate taxation was critical to a significant minority of head-office decisions. For a high percentage of manufacturing projects located in assisted areas, financial incentives were important, especially in the choice of region.

9. Location factors in the second half of the 1980s: additional evidence

9.1. Introduction

In this chapter we will try to corroborate and check the results of the survey of factors influencing recent location decisions with the help of other studies. After reviewing some other surveys of location decisions of (foreign) firms, we will go on to give attention to changing location requirements. At the end of the chapter some conclusions will be drawn.

9.2. Surveys of location decisions of (foreign) companies

9.2.1. Location decisions at the country level

In a survey among 529 Japanese manufacturing companies in the EC, Jetro (1990) asked them to rank their reasons for choosing a certain location for their business base. Out of the 270 respondents, 180 answered that particular question. The four most frequently mentioned reasons were (see Table 9.1):

1. the physical distribution environment is favourable from a geographical point of view;
2. English-speaking managerial staff is easy to recruit;
3. the infrastructure is satisfactory; and
4. comparatively good workers are obtainable.

However, the Japanese firms showed some variation in their principal location factors by area of location. Those located in southern Europe (Italy, Spain, Greece, Portugal) had paid special attention to labour costs and the size of the domestic market. By contrast, physical distribution environment, infrastructure and quality of the work-force had been the main location factors to companies in the central countries of the Community (UK, France, Germany, Benelux). The results from a recent statistical analysis of the factors that determined the location of 236 manufacturing subsidiaries of Japanese firms in Europe confirm those findings (Yamawaki, 1991). Especially local R&D capacity and market size are relevant. As Japanese firms in the EC are manufacturers of technologically sophisticated products, it is essential for their local subsidiaries to employ skilled workers and engineers, procure technologically advanced and high-quality parts and components from local suppliers, and require local R&D capacity for adapting products to local standards and tastes. The market size of individual Member States is another important factor, for the single European market will emerge only gradually, and on major markets the Japanese firms can be sure to profit from scale economies.

Another survey, carried out by McKinsey & Company (1988) among 247 foreign companies active in manufacturing, assembly, transport, trade and various services, also revealed market and operational conditions as the most decisive factors for potential foreign investors (Table 9.2). Of all factors affecting investment decisions, the size and nature of the market is the one most heavily weighted.

Next in line come the level of taxation, the availability of qualified labour, the total cost of labour, and the characteristics of competitors, all preceding the most important external conditions (sociopolitical conditions). The most striking change since a similar survey in 1978 had been the reduced weight of labour-related factors, such as the power and attitude of unions, labour-management negotiations, formal labour constraints on management (for instance works councils) and the costs associated with capacity reductions. These labour considerations were all heavily weighted in 1978, but scored unanimously low in 1988.

A survey by KPMG (1989) among 66 foreign, mostly US and Japanese, companies with European headquarters, identified the primary reasons for selecting the Amsterdam area for their headquarters. Among these reasons, the central location of Amsterdam within Europe, air transportation facilities, and the Dutch proficiency in foreign languages led all other factors. Asked to limit their choice to just one main advantage, the companies participating in the survey pointed to the distribution

Table 9.1. Reasons for choosing a business base by country and area of location (plural answers allowed)

	Total	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
[Country]														
Total	730	74	62	104	44	57	78	19	74	55	45	14	22	82
United Kingdom	251	31	19	34	16	20	40	13	27	20	13	2	2	14
France	62	6	7	10	3	4	1	2	5	2	1		4	17
FR of Germany	141	20	20	17	12	19	3	2	17	1	5	9	2	14
Netherlands	65	4	1	15	5	5	13	1	5		3		3	10
Belgium	43	5		9	1	4	7		5	3	4	1	2	2
Luxembourg	1			1										
Ireland	40	2		3			10		5	7	7		2	4
Spain	69	3	8	8	6	4			7	12	7	1	4	9
Italy	17	1	3	1	1		2			3		1	2	3
Finland	3		3											1
Norway														
Sweden	1													1
Denmark	2	1		1										
Austria	11	1	1	2		1			2		1			3
Portugal	17		1	1			1	1	1	6	3		1	2
Switzerland														
Greece	7						1			1	1			2
Iceland														
[Area]														
Major three countries	454	57	46	61	31	43	44	17	49	23	19	11	8	45
Southern Europe	110	4	12	12	7	4	4	1	8	22	11	2	7	16
Northern Europe	46	3	2	4			10		5	7	7		2	6
Benelux	109	9	1	25	6	9	20	1	10	3	7	1	5	12
Others	11	1	1	2		1			2		1			3

Note: Major three countries: UK, France and Federal Republic of Germany
Southern Europe: Italy, Spain, Greece and Portugal
Northern Europe: Finland, Norway, Sweden, Denmark, Ireland
Benelux: Netherlands, Belgium and Luxembourg
Other European countries: Austria, Switzerland and Iceland

(1) Infrastructure is satisfactorily provided.
(2) The domestic market size of the country is big enough and attractive.
(3) Physical distribution environment is favourable from geographical point of view.
(4) Supporting industries including parts and components industries are established with satisfactory production capabilities.
(5) Transportation network including railways, highways and airlines is satisfactorily provided.
(6) English-speaking manager-level staff may be easily employed.
(7) Larger number of Japanese manufacturing enterprises are located in the projected location of business base.
(8) Comparatively good and reasonable quality workers are obtainable.
(9) Labour cost is fairly reasonable.
(10) A pro-Japanese attitude prevails among local communities of the projected location of business base.
(11) Difficulties in children's education are comparatively relaxed, due to various reasons, including but not limited to (a) Japanese school(s) being set up in the vicinity.
(12) Materials and/or parts and components are obtainable under favourable terms and conditions.
(13) Other reasons.

Source: Jetro, 1990.

Table 9.2. Importance of decision criteria

Categories	Subcategories	Weight
		− 1.0 + 1.0
A. Market Conditions		
1. Projected demand	a. Macro-economic factors	
	b. Size and nature of market	
2. Competitive situation	a. Characteristics of competitors	
	b. Stability of industry situation	
3. Constraints	a. Governmental regulation of market	
	b. EC regulation of market	
B. (Re)investment conditions		
1. Financial resources	a. Project development costs	
	b. Investment incentives	
2. Managerial resources	a. Managerial effort required	
	b. Governmental assistance	
3. Governmental decision-making	a. Clarity, directness and continuity of rules	
	b. Cumbersomeness of procedures	
	c. Constraints imposed by restrictive legislation	
C. Operational conditions		
1. Availability/cost of labour	a. Availability qualified labour	
	b. Total cost of labour	
	c. Cost associated with capacity reductions	
2. Operational constraints	a. Cost of raw materials/supplies/utilities	
	b. Transportation systems	
	c. Telecommunication and professional services	
3. Taxes and accounting systems	a. Level of taxation	
	b. Tax-related accounting practices	
	c. Customs facilities	
D. Managerial conditions		
1. Business climate	a. Business community's attitudes	
	b. Quality of management	
2. Labour climate	a. Power and attitude of unions	
	b. Labour-management negotiation habits/procedures	
	c. Formal labour constraints on management	
3. Administrative systems	a. Effectiveness and efficiency of procedures	
	b. Legal/administrative constraints	
E. Sociopolitical conditions		
1. Macro-economic climate	a. Stability/strength national economy	
	b. Strength of main industries	
	c. Power and role of national/regional government	
2. Social climate	a. Attitude towards work	
	b. International orientation	
3. Personal living conditions	a. Appeal of the foreign country	
	b. Ease of acclimatization	
	c. Structure of personal taxes	

Source: McKinsey, 1988.

advantages associated with a highly developed infrastructure. Amsterdam's central location was ranked second. These two advantages are essentially interrelated.

From a survey among 416 American companies (Buck, 1986), market factors again emerge as the most important group of location factors. The second most important group are the factors related to the geographical position and to infrastructural aspects. Labour-related factors are the third group of location factors.

In the distribution sector there is a tendency to centralize facilities in one or two European distribution centres, to cut the cost and increase the efficiency of delivery, and reduce stocks. Consequently, European distribution centres have the following location requirements: a central position in the EC, high quality of the transport and distribution sector, excellent infrastructure and an international working climate (NEI, 1990).

9.2.2. Location factors at regional level

In a recent survey among more than 9 000 companies in various European regions, companies were asked to indicate the factors that shape competitiveness on the national and regional levels (IFO, 1989). Macro-economic conditions such as economic growth rate, sectoral mid-term outlook, and industrial policy were most positively assessed to sustain competitiveness. The most negative assessments were given to labour costs, income and corporate tax, cost of credit, and regulations of the labour market. In lagging regions, the reduction of cost of credit ranked at the top of the priority list. In declining and control regions, the reduction of indirect labour costs and of income and corporate taxes are seen as the main factors to be improved.

Table 9.3 ranks the most significant regional factors that emerged from the study by type of region. In a discussion of the effects of region-specific factors on regional competitiveness, the differences in factor endowment among the regions must not be overlooked. Some of them are fairly obvious: the location of markets and suppliers, proximity to auxiliary industries and other service companies (banks, insurance companies, advertising and consulting agencies, etc.) have important effects on the location choices of industrial firms. Other endowments, such as availability of locally supplied energy and waste-disposal facilities, as well as quality of telecommunication and transport systems, are also important regional characteristics. Along with the regional infrastructure it is the quality of labour and its availability in a region that traditionally determine the locational advantages of the region. In a time of rapid technological progress, the role of specialized or highly trained labour as a location factor becomes more important, and sometimes decides the choice of the types of product and production process that are considered profitable for the region.

The list of the regional specific factors would be incomplete without regional-policy incentives (labour subsidies, capital grants, etc.). Regional-policy incentives are used mainly to promote firms' innovation and investment activities, achieve rapid changes of industrial structure, and keep the region's unemployment rate as low as possible (IFO, 1989).

In an enquiry which Buck (1985) carried out among industrial Japanese and American in Western Europe, companies were asked to indicate the decisive location factors for choosing a location within a country. On the regional level, companies were found to look first at the production factors, such as a geographically favourable physical distribution environment, infrastructure, quality of labour, and the availability of premises and space. Financial factors, such as incentives and taxes, were also frequently mentioned. Market forces were of minor importance.

In the UK, labour considerations, while not decisive, are usually part of an organization's decision to relocate. Most moves, however, seem to be triggered by poor accommodation and facilities, according to the 1988 Price Waterhouse/CBI Employee relocation council survey (1990), which examined the experience of 300 organizations. As a stand-alone factor, good communications outweighed labour considerations in the choice of location.

Table 9.3.
Ranking of the most significant factors that shape regional competitiveness of European regions

Region	Most positive factors	Most negative factors	Factors with highest priority to be improved
Lagging regions	Proximity to customers Modern communication system Market services of banks, insurance companies and lawyers Proximitiy of suppliers Social climate	Local/regional taxes and public fees Availability and costs of energy supply Availability and cost of waste-disposal facilities Availability and costs of housing Business culture	Availability of qualified labour Connection to the traffic network Regional policy incentives Availability and costs of energy supply Modern communication system
Declining regions	Modern communication system Proximity to customers Connection to the traffic network Market services of banks, insurance companies and lawyers Proximity of suppliers Market services of advertising and consulting companies	Local/regional taxes and public fees Availability of qualified labour Availability and cost of waste-disposal facilities Cooperation of and flexibility of regional authorities Availability of leisure time facilities	Availability of qualified labour Local/regional taxes and public fees Connection to the traffic network Proximity to customers
Control regions	Modern communication system Connection to the traffic network Market services of banks, insurance companies and lawyers Proximity to customers Market services of machinery service company	Local/regional taxes and public fees Availability of qualified labour Availability and cost of waste-disposal facilities Availability and cost of housing Cooperation of and flexibility of regional authorities	Availability of qualified labour Connection to the traffic network Modern communication system Local/regional taxes and public fees Social climate

Source: IFO, 1989.

In a survey of the Chesterton Consulting Group *(Financial Times,* April 1990) companies were asked to indicate the importance of location factors for defining the area of location. Appropriate premises and availability of room to expand were found to be one group of important location factors. The second group, of equal importance, contained the possibility of enhancing the corporate image and easy transport and communication; it was followed by labour-related considerations.

9.2.3. Conclusions

From the various surveys, the factors said to influence the location decisions of firms in Europe appear to vary quite a bit. The variation springs in part from the type and size of the firms interviewed, and for another part from the method of enquiry and the type of questions asked.

Despite the variation, the conclusion seems warranted that in the second half of the 1980s locational choices of foreign firms were largely governed by factors on the country level. The most important factors were size and nature of the domestic market, the availability and quality of labour, and the transport and communication infrastructure. Stable sociopolitical conditions (political and labour relations, level of taxation) were sometimes mentioned as important prerequisites.

The surveys have revealed that the weights of location requirements are subject to change. In the next section we shall examine the changes in some detail.

9.3. Changing location requirements

9.3.1. Markets

For instant and flexible response to changes in the nature and volume of market demand, proximity and access to the sales market are gaining in importance. In most cases that implies the physical presence of (part of) production, marketing, distribution and administration in a significant market area (US, Japan, EC). The completion of the internal market by the end of 1992 is making United States and Japanese companies eager to locate new establishments in Europe; perhaps in the near future companies from other countries in South-East Asia will follow that example. Like companies already located in Europe, they seem to favour regions and towns well situated in respect of sales and supply areas and boasting a mainport (port, airport) close by, advanced telecommunication equipment and adequate traffic infrastructure to guarantee access (especially by road). The need for contact with the market was pointed out by NEI (1987), Dunning & Norman (1987), both quoted in Section 9.2.

The proximity of inputs has once more become important. Hence the preference for a location in regions and cities with a well-developed supply of product components as well as business and non-business services, and possibly with knowledge centres such as universities. Such preference matches the tendency of increasing specialization and the necessity of regular innovation of products and processes. As a result of a growing tendency to contract out non-strategic production and service activities, the presence of highly qualified subcontractors/suppliers is of major importance. Because of time-critical relationships (just-in-time), excellent transport and communication infrastructure is indispensable.

These tendencies have divergent spatial consequences. Technological progress in the areas of telematics, transport, and new materials brings distant markets within easier and faster reach and control. At the same time, technical progress opens opportunities also for the smaller units to work the market efficiently. Dependent on the type of product, specific market conditions and the business strategy, the manner and place of production will finally be determined by the type of product, specific market conditions and the firm's business strategy.

9.3.2. Transport and communication infrastructure

The functioning of companies is becoming more dependent on transport and communication infrastructure. More and more companies are selling their output in, or procuring their input from, international markets. That development is helped along by technological innovations in transport and telematics, and stimulated in Europe by the progressive economic unification and the opening of the East European market. The reduction or elimination of physical and administrative barriers causes an increase in international trade and induces entrepreneurs to reconsider their location in an international perspective. In Western Europe, that leads to more rivalry among cities and regions for the entrepreneur's favour. Another aspect to keep in mind is that progress in telematics makes it easy for companies to exchange information with remote branch establishments as well as other companies and agencies.

There is a progressive tendency among large (inter)national companies to carry through a spatial separation of functions. The implementation varies, but in broad terms the procedure is that the activities of the company are broken down into departments (such as production, distribution, main office, front and back offices), which subsequently are located where they promise most in terms of returns, costs and/or representation. Each department is made to operate as an autonomous profit centre, and efficiency is assured by adequate lines of transport and telecommunication among these centres. The importance of transport infrastructure is confirmed by several studies (for example NEI, 1987; Jansen & De Hen, 1990; Industrie- und Handelskammer zu Dortmund, 1990; Ribeiro, 1990), as is that of communication infrastructure (see, for example Thwaites, 1982; Premus, 1982; NEI, 1987; Industrie- und Handelskammer zu Dortmund, 1990).

Transportation of goods and business passengers by air is increasing fast. The principal underlying factors are the internationalization of business enterprise, the liberalization of air traffic, improved transport techniques (refrigerating, for example), and a growing number of high-grade and time-sensitive products and contacts. Airports with numerous international connections thus become important points of supply and poles of attraction for such activities. To a lesser extent, smaller airports supporting mostly continental connections can fulfil a similar function. Markusen, Hall, Glasmeier (1986), Stöhr (1986) and Hall, Breheny, McQuaid, Hart (1987) have stressed the significance of good airport facilities to high-tech companies.

9.3.3. Labour-market aspects

An adequate supply of well-skilled, innovation-minded manpower has increasingly become an essential location factor. In view of quantitative and qualitative discrepancies, the location choices of companies are guided more and more by the availability of a labour force with good qualifications. As high-skilled workers in particular want to live and work in an attractive environment which provides a broad array of socio-cultural and leisure services, the quality of the site is gaining importance as a condition for recruiting and keeping workers. Some elements of that quality are nursery facilities, a location near high-grade shopping centres, sports facilities (fitness) and accommodation for informal meetings.

Manpower quality is becoming a crucial element of company management, in relation to several of the aspects mentioned above (see, for example Stöhr, 1986; NEI, 1987; McKinsey & Company, 1988; Cuadrado & Aurioles, 1990; Ribeiro, 1990; Jansen & De Hen, 1990). The fact is that the human input in the production and distribution of goods and services is becoming more and more a means to distinguish a company from other companies and agencies. Companies and agencies will (have to) give ample attention to the recruiting, training and keeping of well-trained staff, for instance by offering attractive secondary employment conditions (nursery facilities for the children of staff members, etc.).

Modern management tends to put ever higher demands on the quality of the location environment and the business accommodation on its principal premises. Indeed, more and more companies and institutions recognize that the building and its surroundings present a kind of 'visiting card' to (potential) customers; moreover, attractive work surroundings are an important factor in the recruitment of staff. That is why more and more attention is given to location (representativeness, visibility, accessibility), layout (park-like surroundings, spacious grounds, easily recognizable individual buildings, segmentation of types of activity, general services such as banks, hotels and catering facilities, petrol stations), design (architecture) and appointment of the building (security, rooms free from dust and vibration, climate control, flexible furnishing, telecommunication facilities, etc.). Remarkably, the location requirements for offfice activities and high-grade production seem to be blurring. Markusen *et al.* (1986) and Stöhr (1986) confirm the importance of a pleasant working and living environment for high-tech production.

9.3.4. Public policy

In the 1980s, public policy to attract mobile investments was focused on the development of a favourable investment climate. Since on the regional level, as we have seen in Section 9.2.2, the location choice of companies hinges upon production factors, public policy was designed to improve such operational attributes as the availability of labour, infrastructure (telecommunication and transport systems) and business services. Quality aspects were vital, and therefore business and/or science parks were developed offering an excellent infrastructure and service network. Training schemes were initiated to enhance the quality of the work-force. Note that the process of inward investment also provides policy-makers with guidelines for encouraging indigenous investment. The conditions associated with the success of inward investment should be identified and duplicated to support the development of existing and potential indigenous firms (Roberts and Noon, 1987). The availability of incentives is of minor importance but has certainly influenced the final choice of location (PA/CEC, 1989).

9.4. Conclusions

Although the rankings of location factors vary by type of activity, in general the location factors that ranked high in the 1960s and 1970s still did so in the 1980s, namely: market factors, infrastructure, and labour-market aspects. But within the three groups, some changes can be observed.

More emphasis than before is now placed on quality aspects of the infrastructure (air transport, distribution, telecommunication and computer infrastructure) and labour. As the production processes become more knowledge-intensive and the service activities grow, the need for a qualified labour force increases. Market factors are changing in dimension: while in the past the volume of the national market was the dominant factor, now the position in the EC market has become more important.

On the regional level, the availability of qualified labour, a good communication infrastructure, room to expand, and appropriate premises are the factors that prevail in location decisions. Taxes and incentives are of minor importance, but have certainly influenced final location decisions. On the regional scale, market factors are the least important.

Part IV

Future developments

10. Future trends and mobile investment

10.1. Introduction

In the previous chapters we have analysed the basic factors that determined the mobility of economic activity in the (recent) past. These factors affect either the propensity to move (such as technology) or the impulses to move (such as economic growth). So, before plotting future patterns of mobile investment we will analyse first how future trends will influence mobility determinants, and then assess what effect these determinants will have on mobile investment by type of activity.

The same future trends will affect the factors dominating the location decisions of mobile investment. Therefore, we will assess the changes in (the relative weight of) location factors as they can be derived from the literature, our own experience and evidence from the survey of companies undertaken in the framework of this study.

The information thus gathered will enable us to describe the impact on various types of regions in the European Community, and to draw conclusions with regard to the government policies best suited to attract mobile investment.

10.2. Major influences on mobility

10.2.1. Globalization of economic activity

In the past the world-wide economic environment has shown two trends: a growing interdependency and the emergence of new players. There are clear signs that these trends will continue in the (near) future.

Global interdependency will be enhanced by the gradual further removal of barriers to trade (GATT rounds), the improvement of transport and telecommunication infrastructure, the strengthening of macro-economic and monetary coordination (IMF, OECD, EC), additional global players, economic specialization, etc. Despite these trends, strong regional groupings of countries will emerge within which free trade and investment will be much easier than outside. We expect the process of regional grouping to be rather diffuse, however: the political conditions for strong regional groupings like the European Community do not seem to be fulfilled in many other regions of the world.

As for the players in the economic game we expect the following:

(i) among the present dominant players, Japanese firms will extend their presence world-wide as organizers of production, distribution, services and finance activities. The first wave of companies in manufacturing and distribution of both producer and consumer goods are deepening their investments, partly as a result of local content rules (Dunning and Cantwell, 1991). Besides, suppliers of components and services (building activities, finance, etc.) are now following to serve firms of both Japanese and other origin (Ozawa, 1991; Ishikawa, 1990; Jetro, 1990);

(ii) a very high majority of the top 500 US companies have already established facilities across Europe. In many cases these companies have deepened their investment, notably in Europe, by additional investment in existing facilities, opening new facilities, and engaging in mergers, take-overs, and joint ventures. There has also been a recent trend for US companies to open applied R&D centres and regional headquarters in Europe. Other US companies established facilities for the first time in Europe during the 1980s. These various trends are expected to continue;

(iii) several new industrializing countries (NICs) are now past the first stages of industrialization and will increasingly behave as developed economies. We may therefore expect firms from these countries to complement their role of exporters of goods with one of direct investors (Young *et al.*, 1991). Recently, various firms from South Korea and Taiwan have already invested in distribution centres in Europe and elsewhere. The next development will be to establish production.

Through time, companies have spread their operations across a wider geographical area. Many companies, no longer satisfied with import and export relations alone, engage in direct investment (manufacturing, services, regional headquarters, etc.). This direct investment comprises greenfield investments as well as mergers with, and acquisition of European companies in Europe and elsewhere, and foreign companies in the EC. Although some authors (see among others Ohmae, 1990) argue that these companies are organizing their production on a global scale, others (Ruigrok and Van Tulder, 1992, among others) maintain that in most companies strategies of global localization still prevail. Acting in this way, companies concentrate on core activities while creating a controlled division of activities among geographically concentrated firms in major regional markets (Triad).

10.2.2. European integration

Widening and deepening have been the characteristics of European integration in the past; the same two elements are expected to reshape the present constellation along the lines of fairly well-established scenarios (see, for example Molle, 1990).

The widening of the EC will affect the following two sets of countries:

(i) EFTA. We expect EFTA countries that have already applied for membership or are considering that step, to join the EC shortly. The economic impact of their accession will be limited as they are already strongly integrated, for instance in matters of trade, and carry little economic weight (about one-tenth of present EUR (12) GDP). The recent construction of the European economic space is a first step towards the enlargement of the EC;

(ii) Central and Eastern Europe. Although formal accession of Central and East European countries to the EC still seems a long way off, we assume that the EC will enter into agreements involving opening its markets to them and accepting responsibility for the creation of conditions for growth in Central and Eastern Europe. Otherwise, Western Europe must expect a massive inflow of people who want to share in its economic growth and welfare.

The best way to describe the deepening of European integration can probably start from the hypothesis of a completed internal market. The new dimensions are:

— Economic and monetary union (EMU). We expect EMU to be realized in the near future, involving macro-economic coordination and a single currency. Such a development is likely to speed up economic growth and structural adjustments (CEC, 1990 c);

— European political union (EPU). We assume some strengthening of the EC along the lines of EPU. However, the contours of the political union are vague and its economic impact is not yet well defined.

The simultaneous widening and deepening of the European Community will give a new impulse to firms to be present in the European market and produce more efficiently for the enlarged market (Yannopoulos, 1990; Bachtler, 1990). Both tendencies will enhance the mobility of firms, but also lead to disinvestment in several places. By removing currency risks, EMU may influence firms' location decisions. The extension and intensification of European integration will also have an impact on wages and social conditions in Europe. In Section 10.3 we will examine these points in more detail.

10.2.3. Growth and changing nature of economic activity

The structure of economic activity will be subject to profound changes due to continuous changes in major technologies and markets. New pervasive technologies have come to the fore, the dominant ones being informatics and telecommunications, biotechnology, energy, and new materials (see, among others, Godet and Ruyssen, 1980; OECD, 1990). The influence of these technologies on economic activity is widespread. Information technology in particular affects almost all existing activities.

The new technologies will boost growth in some existing economic sectors and give birth to new types of

activity. In view of other factors, like shifts in market demand and the continuous upswing of the long Kondratieff cycle, the growth sectors of the future appear to be electronics, (speciality) chemicals, biotechnology, and value-added network services (Ereco, 1991). In these sectors, most mobile economic activity is likely to occur.

The successful implementation of these new technologies hinges upon the speed and direction of innovation. With consumer preferences for better quality, more variety and prompt delivery as driving forces, a firm's future market position will be highly dependent on its ability to stay innovative in the face of fierce international competition. Therefore, we expect a high level of R&D efforts to be sustained in all major new technologies.

The develoments described above will have the following effects:

(i) a transformation of the nature of manufacturing. Emphasis will be on economies of scope rather than on economies of scale. Production will be less tied to resource bases than before. Moreover, production methods will become more flexible with the capability to alter product and production processes rapidly. Both trends tend to result in plants that require less heavy equipment and local inputs, which will increase the potential mobility of manufacturing activities.

(ii) a rise of service activities notably as the result of further specialization in the productive part of the economy. For service-type activities, mobility will generally be lower than for manufacturing activities as large segments of the service sector are strongly oriented to local markets. Not only personal services, but also many producer services provided to companies that operate internationally will continue to be rendered to clients located close to the service company's offices. However, with progressive liberalization and cross-border ownership, service-type activities serving more than one country may develop.

10.2.4. Infrastructure

Transport and telecommunication infrastructure have had a profound impact on mobility in the past, and will continue to do so in the near future. The most important future changes on that score in Europe (see, for example Tecnecon, 1991; CEC, 1990 b; ERTI, 1991) will be:

(i) Transport

(a) Road: the motorway network is likely to improve further. Missing links will be completed. In developed regions congestion will be tackled by new motorways, trunk roads, public transport and charges for peak hours. EC-assisted investment programmes will undoubtedly improve the infrastructure, particularly in the peripheral regions of the Community;
(b) Rail: new high-speed lines will be built and developed into networks connecting the main urban centres, strongly concentrated in the heartland of Europe;
(c) Air: more and more airports will develop international connections, especially after the liberalization of air traffic.

(ii) Telecommunications

The improvement of telecommunications implies more standardization, higher capacity, denser and more sophisticated networks, better coverage and connections of backward areas, and new services (broadband).

The result will be a considerable improvement of the European transport and telecommunication infrastructure, and the growth of related services. However, the improvements will take a long time to develop, and not everywhere will they create the basic conditions for attracting new mobile investment. In fact only those regions that already have some competitive economic advantage in specialized areas and meet high demands for a broad array of facilities for firms, will be able to benefit from massive investment in transport and telecommunication infrastructure. In Section 10.4 that point will be examined more closely.

10.2.5. The impact assessed

A huge body of literature on the economic impact of the single market has been produced for the Commission (for a review, see the reports produced under the responsibility of Emerson (1989) and Cecchini (1989)). From that literature, as well as other studies (Ereco, 1991 and CEC, 1990a, among others), the conclusion can be drawn that for firms there will probably be as many impulses to move in the near future as there have been in the recent past. These impulses will bring about continued significant flows of mobile investment. The interviews with companies held for the present study have corroborated that view.

With respect to some major economic functions the following tendencies can be perceived.

Headquarters

Some new European investment can be expected to ensue from the tendency among large companies to coordinate their activities in Europe by concentrating management and marketing functions in one or just a few offices, and from the merging of large companies with headquarters in different countries. Greenfield investments are more likely among foreign-owned companies because of the growing weight they attach to decentralization of their structures. The existing regional distribution of headquarter functions in major metropolitan regions in Europe is likely to continue or even intensify, as will be explained in more detail in Sections 10.3 and 10.4.

R&D

Basic R&D activities are mostly concentrated near headquarters of the mother company. However, there is a tendency for European- and especially foreign-owned companies to locate applied R&D activities away from the mother company, near to major regional markets (Howells, 1990). Applied R&D is likely to follow the production plants of the company in order to meet specific needs of local or regional markets. Other reasons are the desire to profit from local factor costs and to gain access to specialized skills.

Distribution

Concentration tendencies dominate distribution for the European market. Both European and foreign companies are restructuring their logistic functions, creating distribution centres that serve (a major part of) the European market.

Financial services

Deregulation, increased internationalization of companies (clients), and progress in telecommunication and computer networks have made financial services more mobile. Keen international competition has stimulated further concentration in large companies. To enter foreign markets through greenfield investments is difficult and takes a lot of time. Financial services are therefore more inclined to expand by acquisition of or by working agreements with foreign banks. Greenfield investment is more common by non-EC-owned companies.

High rents and problems with the supply of adequate labour have paved the way for the relocation of so-called back-office functions from some large metropolitan areas to suburban and even peripheral areas in these countries.

Consultancy and media services

The information sector is a strong and growing sector. At the moment the market for telecommunication services is highly fragmented and protected, because it is still publicly owned in most Member States. Privatization and competition are leading to scale enlargement and expansion of activities in foreign markets by European and non-European companies. There is also a strong tendency to concentrate the activities by mergers and acquisitions.

Manufacturing

The completion of the internal market and the growing international competition are major impulses to concentrate production in certain sectors in order to reduce costs, create flexibility, raise efficiency and realize scale

enlargement. How far concentration is feasible depends greatly on the kind of product involved. In sectors with products that need to be adapted to the special needs of local consumers, concentration in large-scale standardized production units is not very likely. Such industries include pharmaceuticals, food and beverages, and mechanical engineering.

To reach a European scale large enough to stand up to international competition and to finance large R&D expenses, many companies are scaling up their activities by mergers and acquisitions. The finance of R&D sometimes takes place through strategic alliances. Especially in sectors with a declining or uncertain demand (food and beverages, vehicles, data-processing equipment, textile and clothing, mechanical engineering), companies are willing to expand their activities by mergers and acquisitions. Foreign companies (notably Japanese) are more likely to expand through greenfield investments than European companies.

10.3. Location factors

10.3.1. Changes in location factors

The tendencies described in the previous section will influence not only the total amount of mobile investment in the European Community, but also the regional distribution of various types of mobile project. In fact, two major changes in location factors are likely to occur:

(i) a decrease in the relative weight of location factors that operate on the national level, due to the creation of the single market and the harmonization of macro-economic and monetary policies in EMU;

(ii) a shift from cost-based towards non-cost-, partly knowledge-based location factors that follows from the trends to more innovation, and to a higher quality, greater variety, and faster delivery of products.

In this section we will examine in some detail the principal changes in location factors by type of economic activity. Table 10.1 indicates these changes. The first type occurs on the national level within Europe; the second is strongly related to location factors on the regional level.

10.3.2. Changes in location factors on the national level

Proximity to the market is a key factor for at least half the location decisions for all types of activity. However, the definition of the relevant market appears to be changing. For some companies, the relevant market today is the European Community as a whole. Ten years ago market proximity as a criterion would have implied production and distribution facilities in each separate Member State; today, the same criterion implies manufacturing anywhere (at one or a few locations) within the Community, combined with strategically located distribution centres. That trend will intensify in the future: with the unification of the European markets, companies will be less inclined to seek a strong domestic market for their products, and more to envisage the European market as a whole.

For various types of economic activity, but notably for European distribution activities, excellent facilities in infrastructure (road, rail, airport, port and/or telecommunications) are important conditions to serve wider geographical markets. Among others, tendencies towards just-in-time supply and 'around-the-clock trading' will make these location factors even more important in the near future, on the national as well as the regional level.

The development of economic and monetary union will in time bring about a greater harmonization and convergence of the macro-economic conditions in the countries of the European Community. National differences in these conditions will then no longer dominate future location decisions, while factors on the regional level will gain in importance. Nevertheless, on the international level, economic and monetary union will influence the direction of future location decisions by accelerating the single plant rationalization: a single currency facilitates distribution across Member States, and hence will reduce further the need to produce for national markets. Such a development could affect peripheral regions either way: easy supply to central markets from low-cost peripheral countries could stimulate investment in peripheral regions; on the other hand, economies of scale might encourage the centralization of production in core

Table 10.1. Changes in critical/important location factors by type of economic activity

	Manufacturing		European HQ	European distribution	Services	R&D
	Traditional	High-tech				
Business factors						
Proximity national market	○ △	○	○	○	○ △	○
Proximity EC market	● ▲	● ▲	○	●	● ▲	● ▲
Presence similar firms		▲	○		○ △	● ▲
Supporting services/R&D facilities		△	○	△	○ △	• △
Availability site	△	△		△		
National and local characteristics						
Corporate taxation		○	○	○	○	
Language skills	○	•	○	○	○	
Promotion/attitude government	○ ▲	○ ▲	○ ▲	○	○	○ △
Financial assistance	○ △	○ △		○	○	○ △
Labour factors						
Availability	○ △	○ △		○	○ △	○ △
Quality/skills	▲	● ▲	○ △	• ▲	● ▲	● ▲
Labour relations/attitudes	○ △	○ △		○		
Cost factors						
Cost of land/premises	○ △	○ △	○	○	○ △	○
Cost of labour	○ △	○ △		○	○ △	○
Infrastructure						
Quality road/rail	○ △	● ▲	○ △	● ▲	● ▲	• ▲
Proximity to port	○ △	○ △		● ▲		
Proximity to airport	○ △	• ▲	● ▲	● ▲	● ▲	• ▲
Quality telecommunications	○ △	• ▲	● ▲	● ▲	● ▲	• ▲
Quality of life and personal factors						
Cultural factors	○ △	○ △	○		△	
Schools expatriates		• ▲	• ▲	△	▲	▲
Educational facilities		▲	▲		▲	▲
Leisure/sport facilities		▲	▲		▲	▲
Overall attractiveness of the area		▲	▲	▲	▲	▲

Legends

National factors	Regional factors
● critical, increasing	▲ critical, increasing
• important, increasing	▲ important, increasing
○ critical, stable	△ critical, stable
○ important, stable	△ important, stable

regions. Should the convergence of macro-economic conditions imply a levelling-off of labour-cost differentials in the Community, the latter tendency will be reinforced.

Monetary union for part of the Community will decrease the attractiveness of locations excluded from the union. For example, if monetary union proceeds without the UK, this will certainly discourage investors from locating there. Monetary union could also raise the rating of countries with relatively high inflation rates. The single inflation rate associated with the single currency would remove the negative aspect of a relatively high historical inflation rate from countries like Spain and the UK. On the other hand, the rapid reduction of the inflation rate likely to ensue from monetary union could cause damage to an economy, a possibility which potential investors may see as a disadvantage.

The tendency to concentrate production and distribution in fewer units serving the European market will lead potential investors to look for countries and regions that are relatively near to the European heartland and nevertheless offer cost advantages. As various types of economic activity have different locational requirements, they will opt for different locations. The enlargement of Europe to the North and East (European economic space) might divert some mobile investment from the south of Europe, however. A limited number of companies in our survey (see Chapter 8) have intimated that the opening of East European markets would influence future decisions as it would encourage them to locate new facilities closer to East European countries. A small number of respondents believed that the former Federal Republic of Germany would benefit most, as the centre of Europe is shifting eastward.

10.3.3. Changes in location factors on the regional level

With increasing harmonization of general economic and monetary conditions in the Community, the influence of location factors on the regional level will increase considerably. As they have in the recent past, a whole range of location factors will determine the future location of firms. For every location decision, production costs are vital, but indeed many of these costs have important qualitative aspects. Especially the availability of high-skilled labour, R&D capacity, good transportation and communication infrastructure, a pleasant environment, and high quality educational, cultural and recreational facilities are increasingly important distinguishing elements of potential locations.

The extremely urgent need for continuous innovation and high flexibility to cope with increased competition causes firms to put considerable effort into strengthening their R&D capacity. High-skilled workers and easy access to various sources of knowledge (universities, research institutes, major customers, competitors) are essential elements. Firms will therefore prefer an environment rich in information, varying by type of economic activity.

To develop and produce high-quality goods and services, availability of highly skilled workers is a prerequisite. That is true of almost all types of economic activity, except for the more traditional manufacturing activities, which will be oriented to pools of semi-skilled workers at fairly low cost. Highly skilled workers are increasingly partial to an attractive living and working environment, and tend to choose their places of employment and residence accordingly. Attracted by a broad array of socio-cultural and leisure services, they tend to display a preference for location in (sub)urban, non-polluted areas.

For flexible and just-in-time response to changes in the nature and volume of market demand, proximity and access to sales markets and the market of (high-grade) inputs are gaining importance. In most cases this implies the physical presence of (parts of) production, marketing, distribution and administration in a significant market area. European as well as American and Japanese multinationals therefore focus on regions and towns favourably situated in respect of sales and supply areas, with a well-developed infrastructure for the supply of product components, business and other services, opportunity to exchange knowledge with universities, with a mainport (airport, port) close by, advanced

telecommunication equipment, and adequate traffic infrastructure to guarantee easy access (especially by road). The relative weights of these location factors will vary by type of economic activity, however.

Flexible production is marked by a decisive geographical re-concentration of production, and the resurgence of the industrial district (Charbit *et al.*, 1991). All flexible production industries are marked by organizational fragmentation in which dense, unstandardized, transactional relations between firms are particularly important. Firms concentrate geographically to reduce the costs and difficulties of these transactions and to maximize their access to the cultural and informational context of the production district itself.

The improvements in transport and communication infrastructure that are being carried out all over Europe will render economic activity in principle much more footloose than in the past. Therefore, location factors that are relevant for specific types of activity will largely determine their location. For firms that require considerable numbers of semi-skilled workers at fairly low cost, the improved transport links from peripheral regions to central market regions in Europe will open new prospects for production in the periphery. However, should the creation of EMU lead to upward pressures on the wages and/or remove the possibility of monetary and currency adjustments in peripheral regions, then their labour-cost advantages might disappear.

10.4. Regional impact

From the evidence given before it seems that there is no single (and/or simple) answer to the question where the best location is in Europe. There is an obvious trade-off between the advantages of being in the economic centre of the Community, that is (West) Germany, parts of France and the Benelux countries, and lower operating costs which are usually to be found in the non-central or peripheral regions such as the Iberian Peninsular, Greece and Ireland. Much of France, Italy and the United Kingdom are in an intermediate position with operating costs higher than in most peripheral regions but considerably lower than in the Benelux countries and (West) Germany. The former nations and regions also have the advantage of being nearer to the centre of the Community, with generally better developed transport and communication infrastructures, higher-skilled manpower, and more sophisticated R&D capacity and business services.

The factors that any individual company will take into account when making a location decision and the weight given to particular considerations will obviously depend on the requirements and objectives of its specific business. As in the near future there will be changes in these factors and their weights, some regions will be more affected than others. Maps 10.1 to 10.5 give an idea of the relative position of the various regions in the European Community with respect to some important location factors.

The recent past has shown that various peripheral regions have been able to attract a considerable amount of (foreign) mobile investment, notably in manufacturing. This has especially been the case in parts of Ireland and Scotland, the Lisboa and Porto regions in Portugal, and parts of the Spanish Mediterranean coast (Barcelona, Valencia, Malaga) and the Mezzogiorno (Bari) in Italy. Cost differentials (labour costs) and financial incentives have played a major role as did access to the national or even the European market in some cases. Maps 10.1 to 10.5 indicate that even between peripheral regions some of these factors differ considerably (e.g. the relatively high hourly wages in southern Italy).

In the near future the competitive position of many peripheral regions in Europe will largely depend on their capability to maintain their relative wage advantage over intermediate and central regions in Europe, while exerting themselves to provide the basic conditions necessary for modern production. Their competitiveness with respect to East European countries is also relevant in that respect. The creation of EMU could lead to a harmonization of macro-economic conditions and to upward pressures on the relative level of wages, preventing monetary and currency adjustments in peripheral regions and countries in Europe. This will

erode the cost differential of peripheral regions in the Community. Moreover, as several peripheral regions are facing the problem of overcoming their handicaps in basic conditions for modern industries (skilled labour, infrastructure of various kinds, industrial heritage), some of these may find it difficult to attract mobile investment.

It is likely that the regions that have not been able to attract mobile investment in the recent past will have the greatest problems in doing so in the near future. In a recent study (Camagni *et al.*, 1991) most of these regions were classified as 'losers', indicating that this has had a negative impact on the economic situation of these regions. Creating basic conditions for modern industries, especially in those regions that could benefit from their favourable location towards new markets in Eastern and Central Europe (former East Germany, parts of Greece and southern Italy), could make these regions more attractive for mobile investment which at the same time could improve their economic situation.

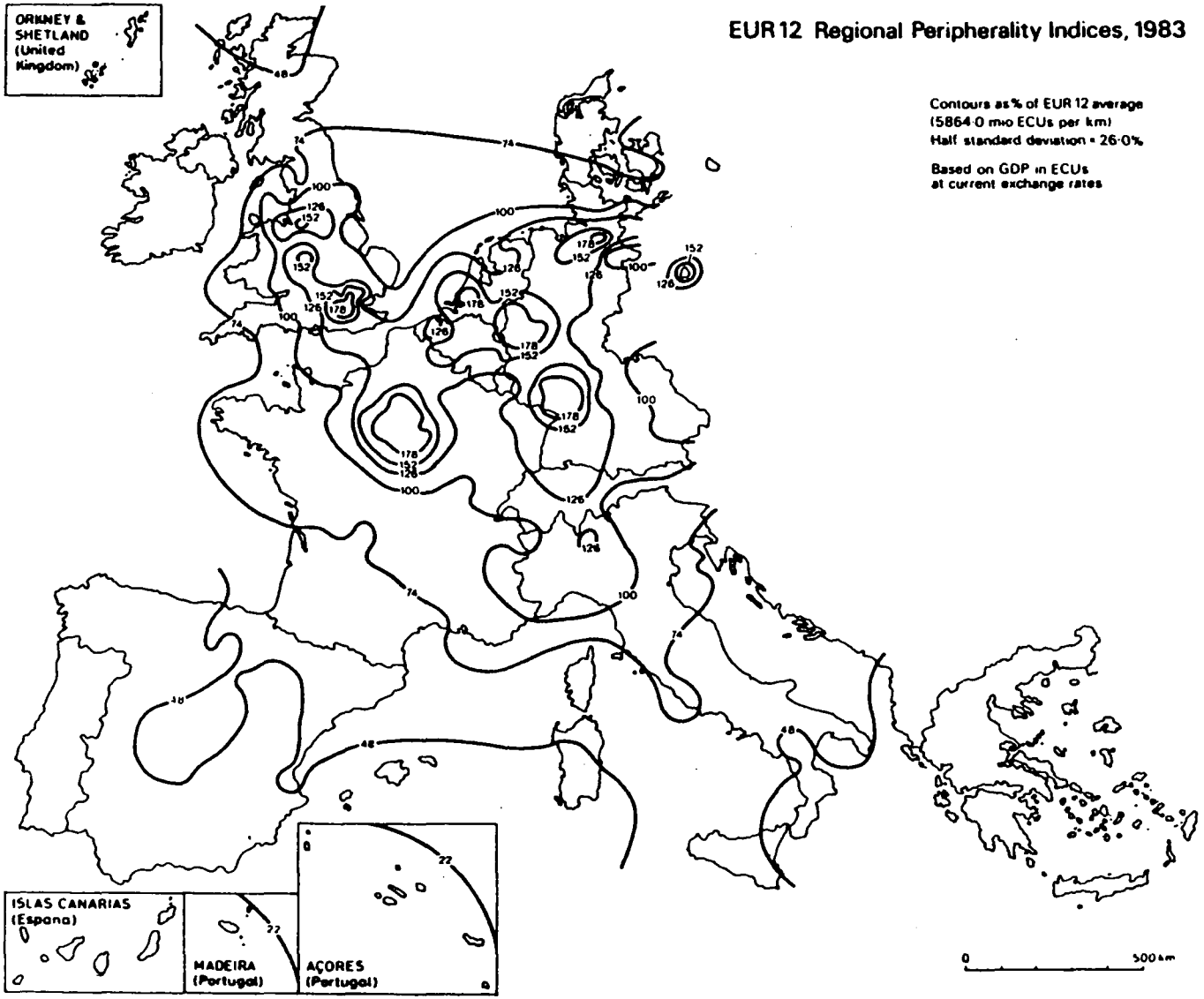
Like the other peripheral regions, those classified as 'winners' (see Camagni *et al.*, 1991) will also have to cope with the likely erosion of their relative labour cost advantage. Several regions already offer good facilities for modern industries which give them good opportunities to attract new mobile investment. Recent experiences in 'winning' regions in Portugal, Spain and Italy (see, for example Vaughan-Whitehead, 1991; Charbit *et al.*, 1991) show that in working together with private companies, active and consistent government policies could lead to an important regional spin-off.

Annex III, derived from a recent Ernst & Young study, shows which (types of) regions are likely to attract various types of mobile project. The conclusion is that the headquarters of producer services are likely to continue to concentrate in the principal metropolitan areas of Europe, together with dependent clusters in parts of their suburban fringes. European distribution centres are concentrated in the centre of the European heartland, near major gateways and along important highways and waterways to the hinterland. New high-technology industrial districts will be found scattered across Europe, partly also in peripheral regions. These new industrial districts are neither territorially nor organizationally equivalent to the former ones: they are much less self-contained, being situated within wider and deeper regional, national and international divisions of employment (Storper and Walker, 1989).

From a recent review of regions in Europe (NEI, 1991) several core areas where economic activity and technological innovation are concentrated can be identified. First there is the core triangle bounded by Paris (Île-de-France), London (South East) and Amsterdam (Noord-Holland), and including the Ruhr Basin. This core triangle is accompanied by other regions that have good accessibility and receptivity to innovative ideas and new investments. In fact, the economic heartland of Europe traces an arc from the English Midlands through Benelux and the German Rhineland to the north of Italy. Certain areas outside this arc are also centres of economic activity and innovation, like Hamburg, Copenhagen and the regions in a line stretching through southern France to northern Spain. Apart from these, additional regions like Berlin, Toulouse and Bordeaux are 'islands of innovation', specialized in particular techno-industrial fields (Hilpert, 1991). Hilpert's Archipelago study indicates that this type of innovation is a very selective process and takes place only where the necessary initial conditions are met ('spots' instead of 'belts').

In fact, a kind of bipolar evolution of the Community is likely: the emergence of new core areas of economic activity and innovation together with the consolidation of certain traditional core regions (core triangle). Within these core regions there are considerable differences, however, in accessibility and receptivity to innovative ideas and new investments. Some old industrial regions (e.g. Wallonia, Saarland, Lorraine) still have to overcome the backlog of their economic history.

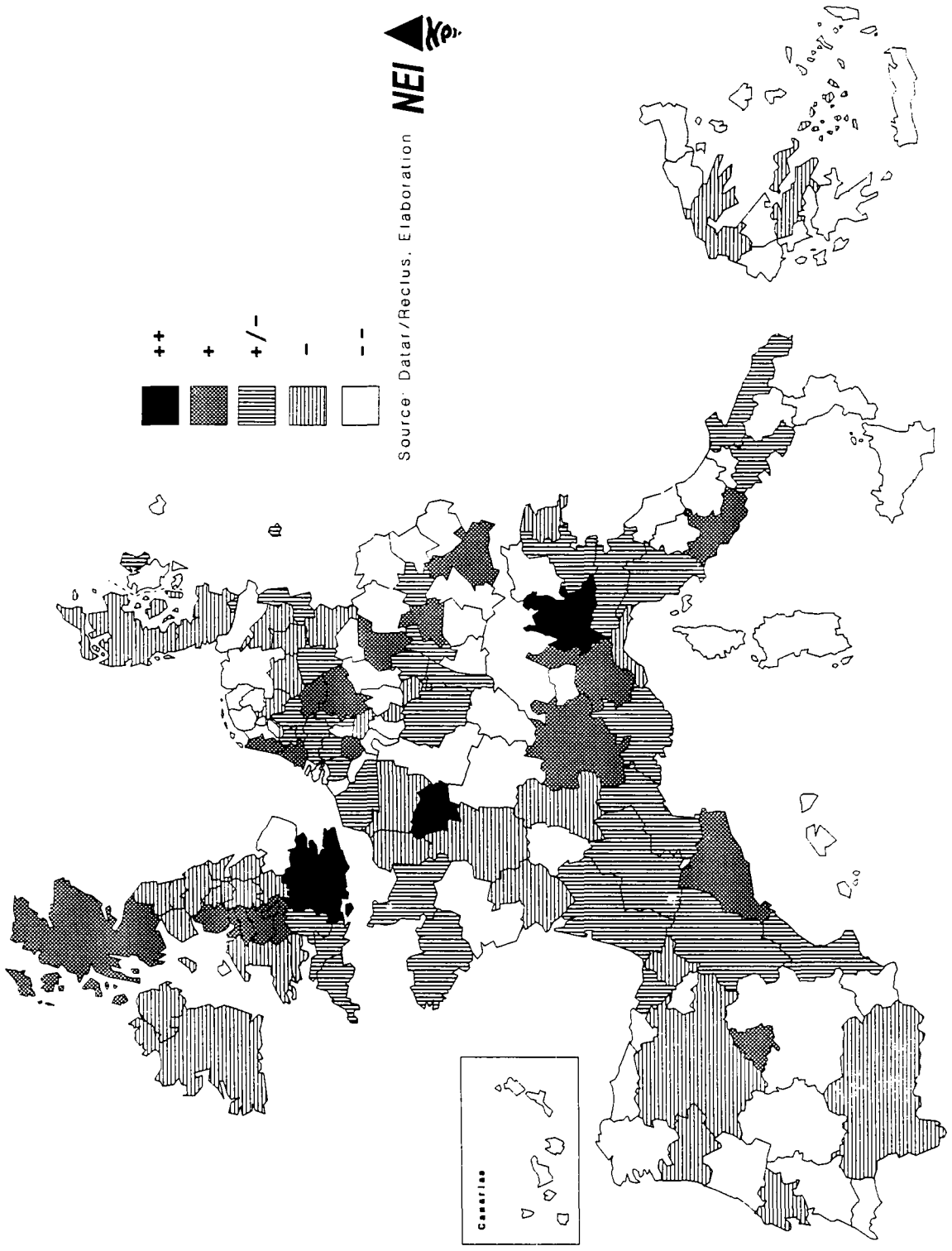
By contrast there are fewer significant developments along the Atlantic Coast. There are, however, notable exceptions such as Silicon Glen in Scotland where foreign high-tech electronics production is concentrated, and South Wales where many manufacturing multina-



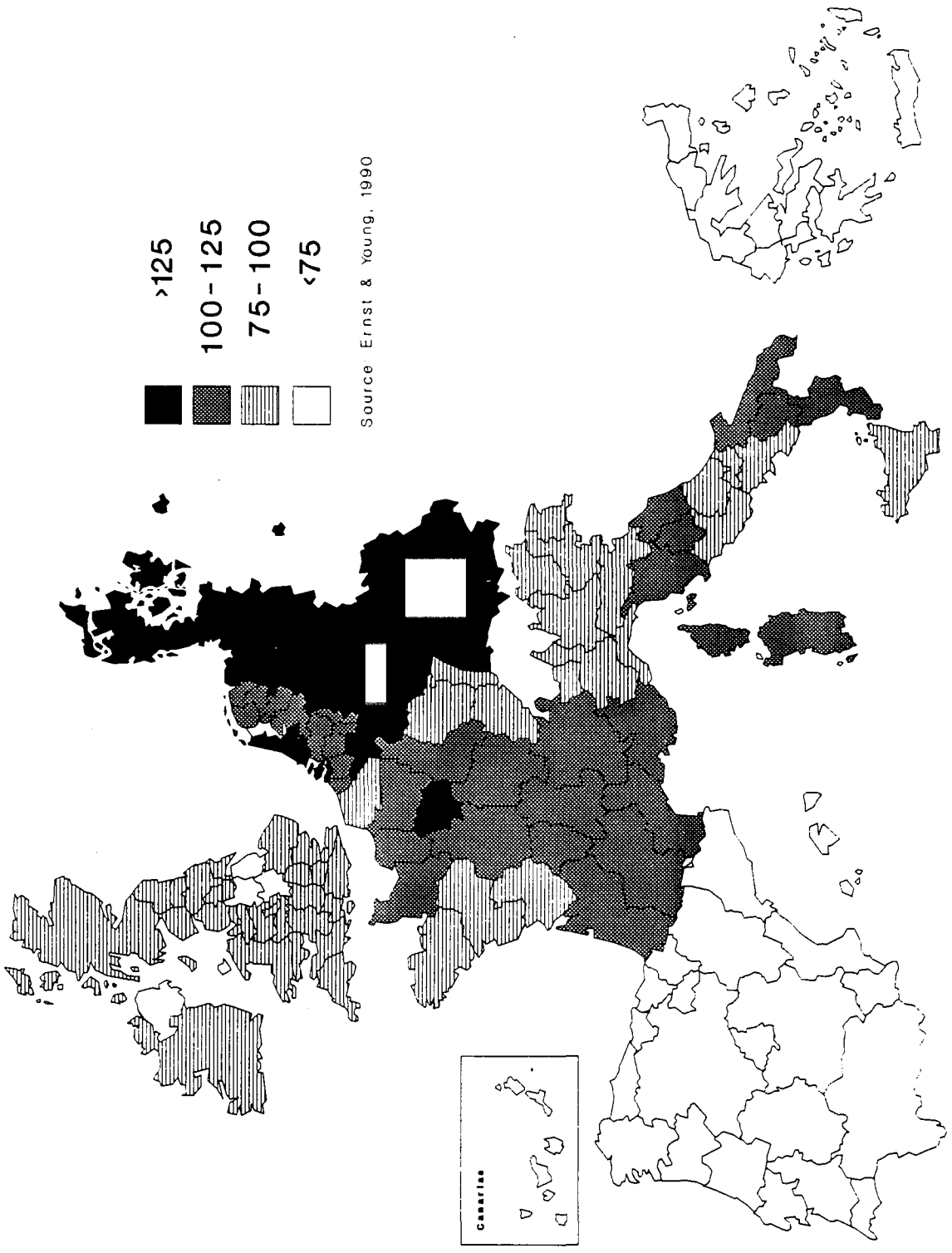
ECU-Based EUR12 Regional Peripherality Index Contours, 1983

Source: Keeble *et al.*, 1986.

Map 10.2. Share of engineers, staff and technicians in total labour force

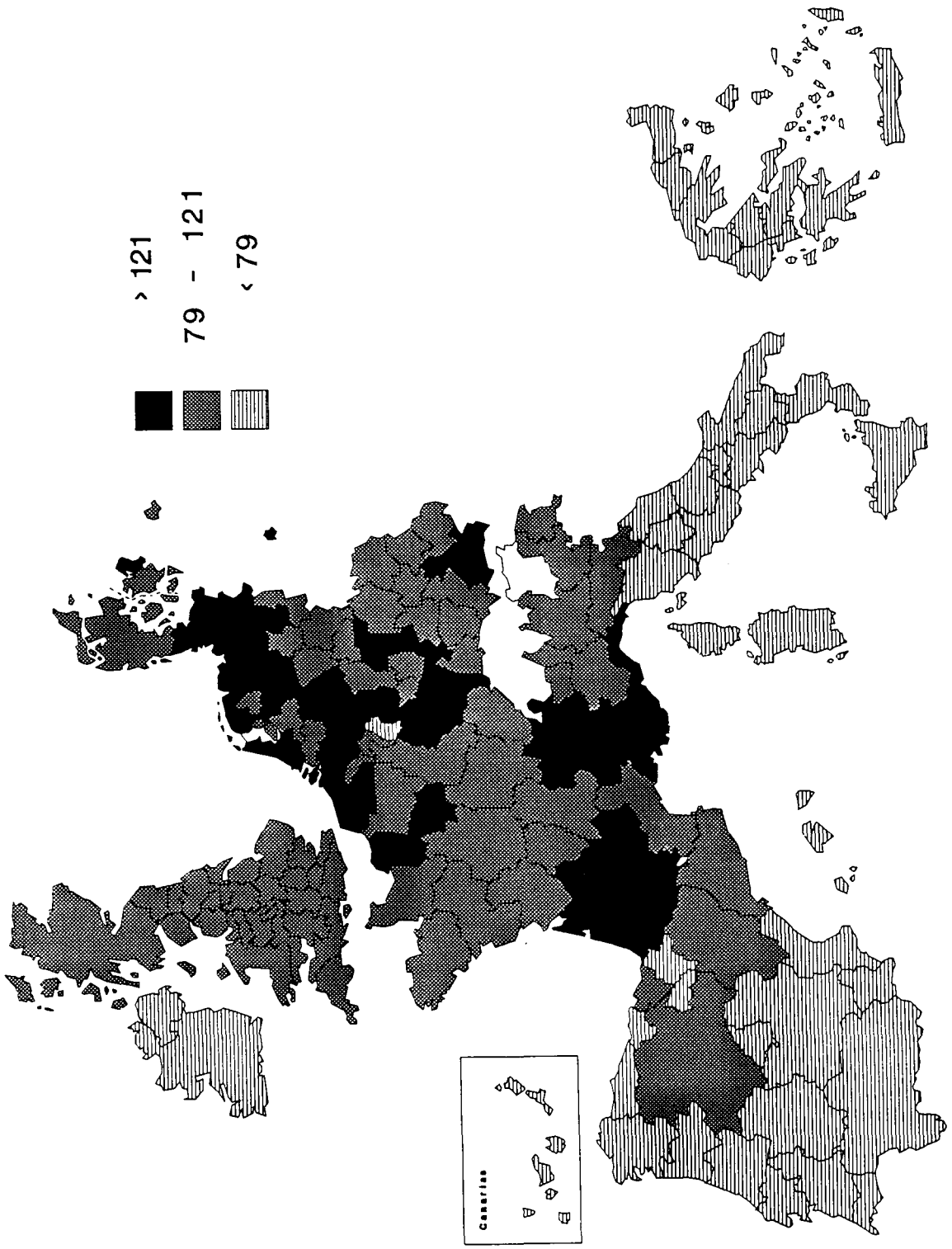


Map 10.3. Regional labour cost (hourly wages) (EC 12 = 100)



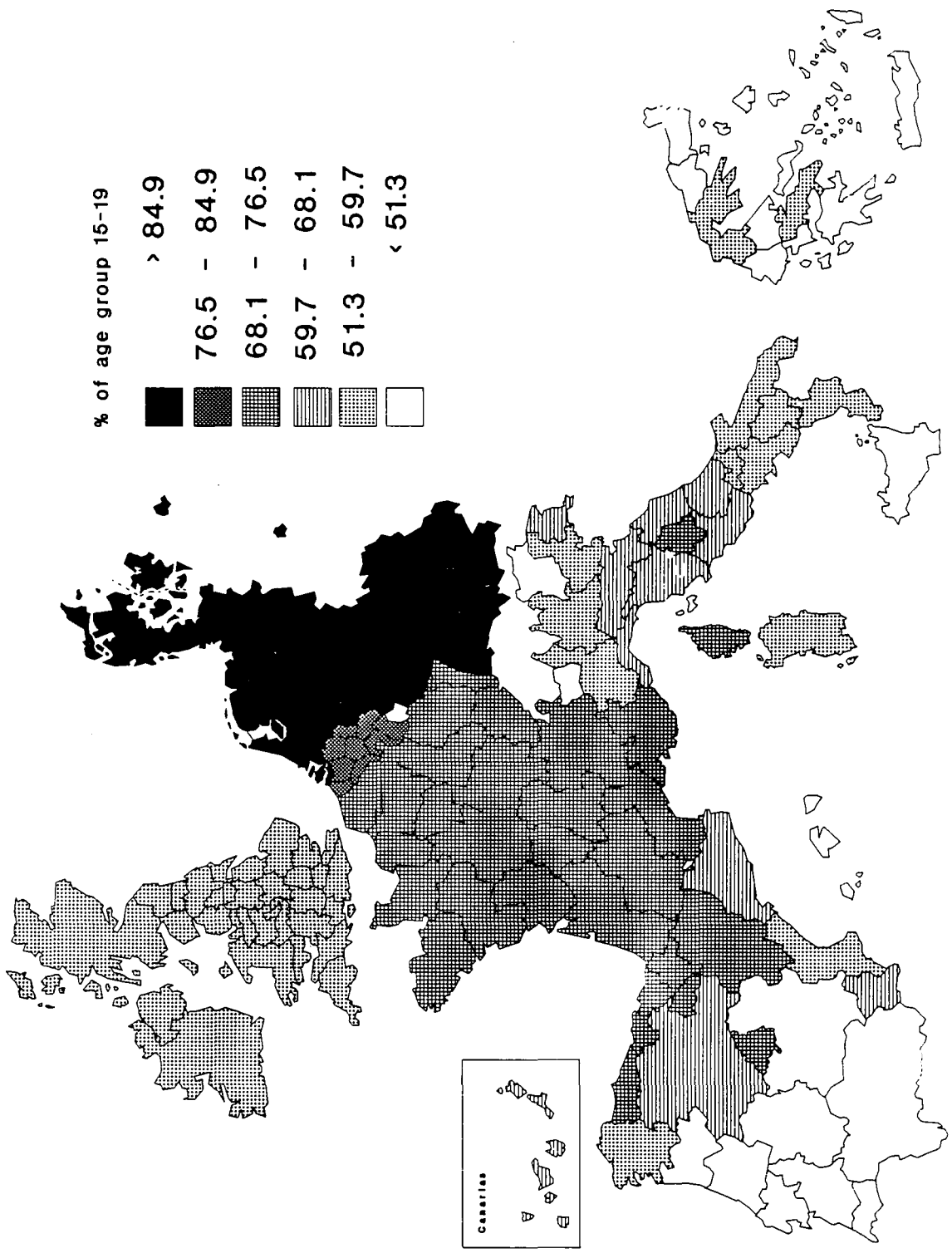
Source: Ernst & Young, 1990.

Map 10.4. Aggregate infrastructure endowment



Source: Biehl, (1986); Elaboration EC.

Map 10.5. Proportion of adolescents in education and training



Source: Derenbach, 1990.

tionals are found. The periphery, including the south of Italy and Spain, Ireland, Portugal and Greece, are predominantly agrarian regions with a weak economic and technological basis. Even so, there has been considerable foreign direct investment by multinationals in parts of Ireland and southern Italy, while other parts have seen the development of many smaller companies and tourism. Partly in relation to foreign investments, some of these regions have specialized in technological niche-markets (biotechnology in Crete and Andalucia; electronics in Ireland and Scotland; textiles in north Portugal), which give them the opportunity to relate these to existing production facilities.

A recently published study by Cambridge Econometrics (1991) indicates that the democratization and restructuring of Eastern Europe will stimulate economic development in the eastern regions of the EC. The first beneficiaries of the rise of the Iron Curtain are expected to be the former zones of West Germany, which have previously been prevented from developing links with their natural trading partners in East Germany. As an extreme example, distribution services in the previously isolated West Berlin are now expected to develop rapidly.

In the long run, the regional impact will depend largely on the kind of overall development that is taking place in Europe. From a recent study (Cadmos, 1991) it seems that this impact is likely to differ for various scenarios of technological innovation, European integration and public policies pursued. In fact the scenario of enhanced diversity, in which there will be a multicultural European society and policies to stimulate cultural diversity and creativity in technology and production, is likely to lead the Community to more cohesion as it will make use of regional strengths. The establishment of a development zone (incorporating East European and Mediterranean regions bordering the EC) will also permit greater cohesion as the scenario comprises a programme of development assistance to these regions, opening new markets for equipment and durable goods to be supplied by the new 'industrial south east' of the EC, where new industrial growth poles could become ideal locations for new productive activities, including advanced technology production (California process). In contrast to that scenario, the scenario combining a process of institutional deepening of Europe with a strong core/periphery process of technological development might result in a clear widening of the economic and social gap among European regions. Fundamentally based on the concept of European 'competitiveness', the latter scenario is stimulating existing economic core regions in Europe.

10.5. Conclusions and policy implications

The results of this research suggest that there will be a significant amount of mobile investment during the 1990s. The quantum of such investment that will be attracted to the regions with relatively high unemployment figures will most probably be insufficient, however, to overcome their problems. While such regions should seek to attract mobile investment, they should also continue with policies to develop indigenous potential. Our main recommendations, however, relate to policies to attract mobile investment.

We believe that mobile investment can bring significant benefits to regions apart from the direct employment and value-added generated. New companies to an area, especially those from other countries, can help to raise the quality of jobs and training provided. They can also introduce new management techniques, new attitudes to industrial relations and new technology to a region. Such effects often diffuse outwards to other local companies. Several studies have shown that in countries like the UK, foreign-owned companies have higher productivity than their domestically owned counterparts.

There has been some suggestion that companies tend to close their foreign plants and subsidiaries at times of decline. This has not been fully substantiated. However, it does point to the importance of regions trying to enhance the functions and status of foreign-owned plants. Traditional regional policies, as applied by both the EC and national governments, have typically embraced infrastructure development, financial incentives and various measures affecting the supply side. It is clear from

our research that such policies still have relevance. However, our research also suggests that policies should perhaps be applied in a more targeted manner.

There is intense and growing competition among regions for mobile investment. The suggestions emanating from our research are that:

(i) a wide variety of factors influence location decisions and companies are looking for a combination of elements;

(ii) there is considerable diversity in the key influences on location decisions among project types and among companies;

(iii) there is a tendency for companies to choose regions where there are already similar activities;

(iv) local promotional policies and support are very important in the final choice of location.

These various points suggest three major policy themes.

(i) Regions should set off their relative strengths and weaknesses against those of their main competitors. They should then develop strategies and policies to attract the particular types of activity and sector which they have a reasonable chance of securing. Regions should thus be selective in the type of mobile activities they target and should seek to develop a degree of sectoral specialism — witness for example the success of Sophia Antipolis and Scotland with their targeted promotional policies. Intermediate and more peripheral regions should not necessarily try to (re-)create the infrastructure and service provision of more central regions. While we are recommending some sectoral focus, this should not, however, be taken to extremes as there is a considerable random element in location choice. Moreover regions should not become over-reliant on any one sector or else they may face future problems of restructuring;

(ii) Regions should develop a rounded package of measures relevant to their selected strategy. They should study the key factors which influence the location decisions of companies in their chosen sectors. Wherever appropriate, they should enhance the resource base in appropriate areas, e.g. review training policies to ensure necessary labour skills are met. In particular, they should ensure that infrastructure and other facilities, e.g. quality of telecommunications, are at least above the minimum standards which the sector requires. Regions should then prepare promotional strategies and material relevant to the sectors they are seeking. This material should highlight the reasons why the region is particularly appropriate for the sector in question, for instance quality of labour, local contacts or R&D strengths, etc. The local promotional bodies also need to ensure they have detailed information available on the sector, e.g. local suppliers, so that they can handle enquiries in a full and helpful manner. Mobile investors require detailed information relevant to them, not generalities or hype.

(iii) Regions should try, if possible, to attract activities which will be stable and which contribute, beyond the immediate jobs and value-added created, to the development of the region. Particular attention should therefore be given to projects which:

  (a) lead to significant new training for the work-force in new skills, technologies, methods of working. Such training will enhance the future employability of the work-force in other companies;
  (b) introduce new technology or management approaches to the region, especially if these are likely to be relevant to other companies locally;
  (c) embrace some degree of R&D or higher management functions. The presence of these functions can enhance the future security of the new operation, as well as improving the knowledge base of the region.

Other policy conclusions which regions and/or the Commission should consider, are the following.

(i) For certain types of projects, in particular for those where companies are looking to encourage exist-

ing employees to move or to recruit from a national or international labour market, quality of local life and of working environment are important. All regions seeking mobile investment should ensure they give adequate attention to these issues.

(ii) Quality and attitudes of labour, and skills available are as important as, if not more important than, costs of labour. Regional plans should ensure that there are sufficient skills locally to meet the needs of mobile investors. As part of local training and education, there should also be an attempt to inform people about the work requirements and ethics of mobile investors. Local areas with bad reputations in terms of industrial relations, etc., need to tackle that problem urgently if they want to attract new mobile investors.

(iii) Countries or regions, especially those which face difficulties in attracting mobile investment, should try to focus their efforts on a limited number of regions or cities. These areas should be those with the potential to attract new companies, not necessarily the 'worst-off' areas;

(iv) The Commission is trying to decrease the level of financial incentives in the Community, whilst keeping the differential in effective levels of support between the more prosperous regions and peripheral or disadvantaged areas. Although the latter areas are permitted under EC regulations to offer the highest rates of grants, they often cannot afford to do so because of budgetary constraints. For instance, the Portuguese Government is permitted to offer grants up to 75% of capital expenditure. Its average award in 1990 was 26.9% however (Ernst & Young, 1992), which is hardly higher than that offered in some of the more prosperous parts of the Community.

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Annex I

Annex I Interregional mobility studies in the 1960s and 1970s

In the 1960s and 1970s, various mobility studies were undertaken at the regional level in the European Community. Klaassen and Molle (1983) have compiled the main results from these studies. In this Annex we will present the main outcomes in some countries.

* **Germany**

Treuner (1973) studied the spatial distribution of new industrial establishments in Germany (5,500 cases) in the period from 1955 to 1967. These new establishments encompassed relocations, opening of branch plants, and establishment of new firms. The most mobile sectors in that period were the clothing industry (21 per cent of all moves), metal constructions/machinery/vehicles (16 per cent), electrical products and electronics (11 per cent), hardware (8 per cent), chemicals and plastics (8 per cent) and textiles (8 per cent). Sectors with relatively low mobility figures were shipbuilding and the aircraft, tobacco, rubber, printing, and leather industries (see table I.1).

Also in Germany, Bade (1983) studied the industrial moves of 5,136 companies between 1964 and 1979. The total includes relocations and branch plants but no new creations. New branch plants prevail; nearly two thirds (63 per cent) of all moves are of that type. In the course of time, a strong decline in the volume of industrial movement (as well as creations) can be observed. In the first eight years of the period, from 1964 to 1971, 3,809 moves took place, but in the following eight years, their number sharply decreased by nearly two thirds to 1,327. New branch plants were affected most by the economic recession that started in the early 1970s. A study of industrial movement by sector suggests that in the 1960s and 1970s a significant proportion of movements were in the clothing industry. The next largest group was mechanical and electrical engineering, followed by other metal, chemicals, wood products, plastics, and textiles (Bade 1983).

* **Denmark**

In Denmark, Christiansen (1983) studied the interregional mobility of firms by industrial sector for the 1961-1976 period. From table I.1, the clothing and shoe industry records the highest rate of movement, followed by furniture, other industry, the electrical and electronics industries, metal goods and wood. That breweries, iron and metal works, and shipbuilding are at the other end of the scale is not surprising.

* **United Kingdom**

In the 1945-1965 period, 3,014 manufacturing companies made moves within the UK (relocations and branch plants). Table I.1 shows up as most mobile sectors: other manufacturing, engineering and electrical goods, chemical and allied industries, vehicles and clothing and footwear. The relatively least mobile industries were shipbuilding, timber and furniture, leather, paper and printing, food, drink and tobacco (Keeble 1975).

* **France**

The mobility of manufacturing companies in France in the 1926-1968 period has been studied by Aydalot (ed., 1970). The mobility of all industries strongly declined in the 1950, but picked up as strongly in the 1960s. Between 1962 and 1968 the most mobile production sectors were paper, chemicals, leather, glas, metal products, wood and furniture. Extraction, textile, food and printing and publishing were the least mobile ones.

Table I.1 Review of interregional-mobility studies by sector in some countries in the 1960s and 1970s

Study Ranking	Treuner Germany 5,500 cases 1955-1967	Bade Germany 5,136 cases 1964-1979	Christiansen Denmark 1961-1976	Keeble U.K. 3,014 cases 1945-1965	Aydalot France 1962-1968
Mobile sectors					
1.	Clothing	1. Clothing	1. Clothing/shoes	1. Other manufacturing	1. Paper
2.	Metal construction, machinery, vehicles	2. Mechanical and electrical engineering	2. Furniture 3. Other industry 4. Electrical and electronics	2. Engineering and electrical goods	2. Chemicals 3. Leather 4. Glass
3.	Electrical products, electronics	3. Metals 4. Chemicals	5. Metal goods	3. Chemicals and allied industries	5. Metal
4.	Hardware	5. Wood prod.	6. Wood	4. Vehicles	6. Wood
5.	Chemicals/plastics	6. Plastics		5. Clothing and footwear	
6.	Textiles	7. Textiles			
Sectors with a low mobility					
1.	Shipbuilding	1. Shipbuilding	1. Breweries	1. Shipbuilding	1. Printing
2.	Aircraft	2. Rubber	2. Iron and metal works	2. Timber/furniture	2. Food, beverages
3.	Tobacco	3. Timber	3. Shipbuilding	3. Leather	3. Construction
4.	Rubber	4. Glass		4. Paper and printing	4. Textile
5.	Printing	5. Ceramics		5. Food, drink and tobacco	5. Extraction
6.	Leather	6. Toys, jewelry			

Annex II

Annex II Methodology Empirical Survey

1 Selection of respondents

a) Preselection of regions, sectors and activity types

The preselection or target spread of regions and sectors follows closely the recommendations made by the Netherlands Economic Institute to the Commission. Following discussions with the Commission two modifications were made to these recommendations. These were the inclusion of Ireland as an example of a peripheral region; and the addition of service sector activity, particularly financial services and the software industry, as a potentially mobile type activity.

The target spread of interviews by region, sector and activity type was agreed between Ernst & Young and the Commission, (see table II.1).

Every effort was made to achieve the cooperation of companies in order to conform to this spread. With the exception of the number of companies interviewed in the **textiles, clothing and shoes** sector being lower than expected, we have been able to broadly conform to the targets.

b) The identification of companies

In order to identify companies which had recently made investment decisions in particular regions, we drew on Ernst & Young's accumulated knowledge, and also obtained information from relevant development authorities.

For the Stage 1 interviews, we sought interviews with large multinationals known to have operations in a number of countries. For the stage 2 interviews, companies were targeted according to the following criteria:

i) That the location decision should have been made in the last 5 (and preferably 3) years;
ii) That the project was genuinely mobile, ie. it must have involved a definite choice of location, with in many cases an international dimension to the location choice;
iii) That the project should not merely serve the local market.

Most investments were made in the last 3 years; some less recent decisions were included if they were considered to offer valuable insights into the dynamics of mobile investments. The sample included inward investment from USA and Japan, as well as investment within and between individual member states.

Table II.1 Regional, sectoral and activity spread of interviews in survey (Figures in brackets indicate interviews conducted during Stage 1 of the study)

Regional Spread		
Germany	* Bavaria	6
	* Nord-Rhein-Westfalen (2)	8
France		4
	* Provence-Alpes-Cote-d'Azur	6
	* Nord-Pas-Calais	3
	* Ile de France (3)	6
Italy		4
	* Lombardia	2
	* Emilia-Romagna	
	* Puglia	6
UK		6
	* West Midlands (England)	3
	* Scotland	6
Spain	* South East (England) (3)	6
		6
Benelux	* Cataluna	5
	* Andalusia	2
Ireland (1)	* Limburg	5
Banking sector (4)	* Brussels (5)	4
Other	* Noord-Holland (2)	2
Total		90

Sectoral Spread		Activity Spread	
* Electronics	20	* Manufacturing plant	48
* Car industry and machinery	17	* Head offices or office function	13
* Chemicals	17	* Research and development	6
* Textile, clothing, shoes	13	* Distribution	13
* Food & Beverages	13	* Financial activities	10
* Services	10		
Total	90	Total	90

Projects excluded from the study are branches of multinationals that serve only the local market; mergers, acquisitions or joint ventures, unless these were particularly interesting cases; and expansions by local companies that did not consider any other location for the new project. Four companies interviewed were later deselected on the basis of their not meeting Criteria (ii). The third criteria was met by all of the projects analysed.

c) Approach to the interviews

Most of the interviews for Stage 2 of the study were held at the location of the mobile investment. This contrasts with Stage 1 interviews, which were mainly conducted at the head office locations.

Respondents within firms were selected on the basis of the extent of their involvement in the location decision, for example the Managing Director. In many cases the current general manager of the plant was someone who had been involved in the initial location selection process at head office. Interviews were not held unless the respondent had been actively involved in the location decision to be discussed.

Interviewees were asked to mention all of the recent investment decisions the company had made over the past 10 years. From this list we were able to determine which project(s) could be classed as mobile investments, and therefore could be analysed in detail for the study.

The interviews were conducted either by Core Team members from the UK, or by Ernst & Young personnel who are part of Ernst & Young's European Location Advisory Service network of offices throughout Europe. All the interviewers were experienced in interviewing industrial companies and were familiar with location studies.

With a small number of exceptions, all interviews were conducted in the native language of the interviewee. The main exceptions were the use of English for interviews with Japanese speakers.

Companies were assured that any information they provided would be treated in the strictest confidence, and provided to the Commission only in aggregate form. In addition, a small number of companies agreed to participate on the condition of not being named or identified by region.

2 Questionnaire development

Stage 1 involved interviews with 17 multinational companies and 4 location experts in banks. This Stage served as a pilot for the ultimate refinement of the questionnaire used in Stage 2.

Stage 2 involved the development of an in-depth, semi-structured questionnaire. This allowed for the collection of data that could be analysed statistically, and yet also enabled the interviewer to understand the flavour of why particular location factors were important, in order to obtain maximum insight into the decision-making process. The quantitative data was subjected to statistical analysis (using SPSS), the results of which were augmented by the more qualitative information provided.

The final format and contents of the questionnaire were approved by the Commission on 14th May 1991. The questionnaire is given hereafter.

NEW LOCATION FACTORS IN EUROPE - INTERVIEW ANALYSIS SHEET

Interviews with companies

A Basic Data

Note to Interviewer

Please assure respondent that interview remains confidential to Ernst & Young. Results will be presented to European Commission in aggregate form only.

The prime purpose of the interviews is to gain a thorough, in-depth appreciation of the factors which have influenced the multinationals location decisions in recent years and whether these influences are likely to change in the future. It should be noted that location decisions are not restricted to *new opening*, but can also involve *rationalisation* or *closure* if decisions on these involve a comparison between different locations.

Company Name: ..... **Region:** .....

Contact: ..... **Location:** .....

Main Activity: (Please describe briefly what the company does) **Sector:** .....

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B Location decisions over the last 10 years

Identify the decisions taken over the last 3 or 5 years where there has been a **genuine** choice of location. This could involve:

- a new plant;
- rationalisation (closure) of existing facilities;
- distribution centre;
- R&D centre;
- office, eg, new European or local Head Office.

Nature of Mobile Activity	Location Chosen	Date of Decision	Full Analysis?
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Use a second sheet if appropriate

C Analysis of decision

For as many **individual** location decisions as company is prepared to discuss (if time is limited choose the most interesting cases eg. those involving a choice of country or where a number of alternative sites were seriously considered).

1 Why was a new (plant, office, rationalisation) in Europe needed?

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2 I would like to understand how you took your location decision. If a choice of country was involved, did you first choose a country and then the region or site within the country, or was your final choice between regions/towns of different countries?

First chose country, then a region/site within country ☐ Final choice between regions/towns within different countries ☐

3 Which countries/regions did you consider?

			Please explain why either the country was not considered, or not shortlisted. Please also note the main city/region considered within country
Belgium	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Denmark	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
France	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Germany	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Greece	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Ireland	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Italy	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Luxembourg	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	
Netherlands	Shortlisted	☐	
	Considered, but not shortlisted	☐	
	Not considered	☐	

Portugal	Shortlisted	☐	_____
	Considered, but not shortlisted	☐	_____
	Not considered	☐	_____
Spain	Shortlisted	☐	_____
	Considered, but not shortlisted	☐	_____
	Not considered	☐	_____
UK	Shortlisted	☐	_____
	Considered, but not shortlisted	☐	_____
	Not considered	☐	_____

4 Country-specific factors

I would like to distinguish between **country** specific factors from **region/town** specific factors. First, what were the critical factors in your choice of country for the new facility/closure.

(Note to interviewer: ask as open ended question, but prompt if necessary. Establish the 5 to 7 critical factors and rank if sensible.) Also note what factors were considered important even if not critical. Tick boxes and give **flavour** of reasons.

	Critical	Important		Critical	Important
BUSINES FACTORS	Overall ☐	☐	NATIONAL CHARACTERISTICS	Overall ☐	☐
Proximity to market (please specify market)	☐	☐			
European community in general	☐	☐	Stable Economy	☐	☐
Selected area of European community	☐	☐	Favourable exchange rate	☐	☐
National market	☐	☐	Corporate taxation	☐	☐
Part of national market	☐	☐	Personal taxation	☐	☐
Presence of foreign companies	☐	☐	Future EC development	☐	☐
Presence of existing similar industry in area	☐	☐	Promotion by or attitude of government	☐	☐
Availability of raw materials	☐	☐	Quality and predictability of national bureaucracy	☐	☐
Availability of component suppliers	☐	☐	Official (national) language	☐	☐
Presence of major customers	☐	☐	Financial assistance	☐	☐
Supporting services/R&D facilities	☐	☐	Other (please specify)	☐	☐
Availability of site/premises	☐	☐			
Other (please specify)	☐	☐			

Please explain exactly <u>what</u> was important and <u>why</u>? Use extra paper if necessary.

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LABOUR FACTORS	Overall	Critical	Important
General availability of local labour		☐	☐
General quality of labour, eg. education, training		☐	☐
Availability of specific skills (Please specify skills sought)		☐	☐
Labour with experience in your industry		☐	☐
Industrial/labour relations		☐	☐
Labour attitudes		☐	☐
Local education levels		☐	☐
Linguistic skills		☐	☐
Other (please specify)		☐	☐

COST FACTORS	Overall	Critical	Important
Up-front Costs land/premises		☐	☐
Other capital costs (please specify)		☐	☐
On-going costs		☐	☐
Labour		☐	☐
Energy		☐	☐
Telecoms		☐	☐
Transport		☐	☐
Materials		☐	☐
Premises (if rented)		☐	☐
Other running costs (please specify)		☐	☐

Please explain exactly what was important and why? Use extra paper if necessary.

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INFRASTRUCTURE	Overall	Critical	Important
Quality of Telecommunications		☐	☐
Proximity to major airport		☐	☐
Proximity to local airport		☐	☐
Frequency of air services		☐	☐
Range of air services		☐	☐
Proximity to ports		☐	☐
Quality of road/rail services		☐	☐
Other (please specify)		☐	☐

QUALITY OF LIFE/ AND PERSONAL FACTORS	Overall/	Critical	Important
Cultural factors		☐	☐
Educational facilities (Local people)		☐	☐
School for expat children		☐	☐
Leisure, cultural, sporting facilities		☐	☐
Local language		☐	☐
Overall attractiveness of country to people who may relocate		☐	☐
Other (please specify)		☐	☐

Please explain exactly what was important and why? Use extra paper if necessary.

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5 For your final choice of country, to what extent was this driven by overall cost considerations, eg. production and transport costs, tax, grants, etc, rather than more qualitative factors, eg. quality of labour, local environment?

Was the final choice of ***country***:

Very largely cost driven ☐
Mainly qualitative ☐
Both equally important ☐

6 If cost driven, was this driven mainly by:

One-off costs (ie. capital, land) ☐
On-going costs (ie. labour/transport) ☐

7 Was any distinction drawn between these two components in the decision process?

8 Region-specific factors

What were the critical factors in your choice of region for the new facility/closure.

(As above, ask an open ended question, but prompt if necessary. Establish the 5 to 7 critical factors and rank if sensible.) Also note what factors were considered important even if not critical. Tick boxes and give flavour of reasons.

BUSINESS FACTORS	Overall	Critical	Important
Proximity to market please specify market:)		☐	☐
European community in general		☐	☐
Selected area of European community		☐	☐
National market		☐	☐
Local market		☐	☐
Presence of foreign companies		☐	☐
Presence of existing similar industry in area		☐	☐
Availability of raw materials		☐	☐
Availability of component suppliers		☐	☐
Presence of major customers		☐	☐
Supporting services/R&D facilities		☐	☐
Availability of site/premises		☐	☐
Other (please specify)		☐	☐

LOCAL CHARACTERISTICS	Overall	Critical	Important
		☐	☐
Good local economy		☐	☐
Local taxation		☐	☐
Promotion by or attitude of local government		☐	☐
Quality and predictability of local bureaucracy		☐	☐
Official (national) language		☐	☐
Financial assistance		☐	☐
Other (please specify)		☐	☐

Please explain exactly <u>what</u> was important and <u>why</u>? Use extra paper if necessary.

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LABOUR FACTORS	Overall	Critical	Important
General availability of local labour		☐	☐
General quality of labour (education/training)		☐	☐
Availability of specific skills (Please specify skills sought)		☐	☐
Availability of labour experienced in your industry		☐	☐
Industrial/labour relations		☐	☐
Labour attitudes		☐	☐
Local education levels		☐	☐
Linguistic skills		☐	☐
Other (please specify)		☐	☐

COST FACTORS	Overall	Critical	Important
Up-front Costs land/premises		☐	☐
Other capital costs (please specify)		☐	☐
On-going costs		☐	☐
Labour		☐	☐
Energy		☐	☐
Telecoms		☐	☐
Transport		☐	☐
Materials		☐	☐
Premises (if rented)		☐	☐
Other running costs (please specify)		☐	☐

Please explain exactly what was important and why? Use extra paper if necessary.

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INFRASTRUCTURE	Overall	Critical	Important
Quality of Telecommunications		☐	☐
Proximity to major airport		☐	☐
Proximity to local airport		☐	☐
Frequency of air services		☐	☐
Range of air services		☐	☐
Proximity to ports		☐	☐
Quality of road/rail services		☐	☐
Other (please specify)		☐	☐

QUALITY OF LIFE/PERSONAL FACTORS	Overall	Critical	Important
Cultural factors		☐	☐
Educational facilities (Local people)		☐	☐
School for expat children		☐	☐
Leisure, cultural, sporting facilities		☐	☐
Local language		☐	☐
Overall attractiveness of region/local areas to people who may relocate		☐	☐
Other (please specify)		☐	☐

Please explain exactly what was important and why? Use extra paper if necessary.

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9 To what extent was your decision to select region X influenced by the existing presence of companies carrying out similar activities? Please explain what aspect of existing activity attracted you to the region. If the presence of existing similar industry was an important factor, to what extent was this related to the existence of labour with experience of working in your industry?

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10 For your final choice of region, to what extent was this driven by overall cost considerations, eg. production and transport costs, tax, grants, etc, rather than more qualitative factors, eg. quality of labour, local environment?

Was the final choice of ***region***:

Very largely cost driven ☐
Mainly qualitative ☐
Both equally important ☐

11 If cost driven, was this driven mainly by:

One-off costs (ie. capital, land) ☐
On-going costs (ie. labour/transport) ☐

12 Was any distinction drawn between these two components in the decision process?

13 What other locations were seriously considered? .....

.....

14 What was your:

2nd choice ..... 3rd choice .....

15 Was the final decision a close one, or were there big differences? Close ☐ Differences ☐

Which factors caused the big differences, and why?

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16 Are you happy with your current situation or would you prefer to be somewhere else? (Assuming there were no cash associated with moving).

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17 If you would prefer to be somewhere else, where would you choose, and why?

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18 Thinking about the critical factors in your choice, to what extent do you feel that if you had been making a similar decision 10 years earlier, that you would have considered different location factors important? If so, please indicate which factors would then have been important.

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REPEAT QUESTION C FOR EACH LOCATION DECISION

D Apart from the location decision you have already mentioned, have you ever given serious thought to relocating other activities (move, new start-up, closure)? If so, which activities and why?

Activity	Why are you thinking of moving this activity and to which region?
.....	.....
.....	.....
.....	.....
.....	.....

E Are there certain activities you would never move? If so, what what are they, where are they located and why would you not move them?

Activity	Location	Reasons for not moving this activity
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Forward Look

F We appreciate potential confidentiality, but could you please tell us as much as possible about your likely future location decisions, eg:

- nature of activity;
- possible locations to be chosen;
- why these locations.

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Will the decisions be influenced by future developments either definite or possible? These could include:

- the free movement of goods, services, capital and people under the single market programme;
- the establishment of the single financial market;
- the Community's approach to international trade arrangements (eg. in GATT round);
- movement towards economic and monetary union; and
- opening of Eastern Europe markets
- Entry of EFTA countries to EC
- general developments at Community - rather than Member State level.

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Annex III

Annex III Ranking of regions in Europe for various types of mobile projects and relevant locations factors[1]

In order to demonstrate how the optimum location may vary according to the circumstances of the project in question Ernst & Young/Corporate Location Europe have prepared a number of combined rankings. These bring together various detailed location factors. The weights applied to particular factors in each ranking are intended to reflect our experience of the importance of those factors to specific types of projects. However, neither the approach used to combine the various factors nor the weights can be scientifically justified and the exercise should be regarded as illustrative only. Rather the intention is to illustrate which regions may appear attractive if particular factors are important. All ten rankings have been prepared and in each case those regions are listed, which appear in the top quartile, in alphabetical order, those which appear in the top ten are highlighted in bold. No strong significance should be attached to the fact that any particular region is not included in the upper quartile. It must be recognised that the results are dependant on aggregate data. Excluded regions could very easily prove to the most appropriate location for similar projects, once account is taken of the individual circumstances of the company and its projects. The fact that over three quarters of all 'level I' regions appear at least once reinforces the point that there is no one best region to locate in.

[1] Source: Ernst & Young/Corporate Location Europe (1990), The regions of Europe; a comparative review of their attractiveness to international corporate investors, Milton Keynes, England.

EUROPEAN HEADQUARTERS

The requirements for a Headquarters operation include: excellent international transport links, good telecommunications, a well educated workforce. Property and labour costs are also important considerations as is the tax regime. A headquarters will need to be conveniently located in relation to a company's operating sites, which suggests a location close to the centre of the European market. The locational advantage of the West German regions in relation to the centre of the Community and their excellent transport links means that six West German regions are included. The Benelux countries also score well.

BADEN-WURTTEMBERG	WEST GERMANY
BERLIN (WEST)	**WEST GERMANY**
BREMEN	WEST GERMANY
BRUSSELS	**BELGIUM**
DENMARK	**DENMARK**
HAMBURG	**WEST GERMANY**
HESSEN	**WEST GERMANY**
ILE DE FRANCE	**FRANCE**
LOMBARDIA	ITALY
LUXEMBOURG	LUXEMBOURG
NORDRHEIN-WESTFALEN	**WEST GERMANY**
SOUTH EAST	**THE UNITED KINGDOM**
VLAAMS GEWEST	**BELGIUM**
WALLONNE	BELGIUM
WEST NEDERLAND	**THE NETHERLANDS**
ZUID-NEDERLAND	THE NETHERLANDS

RESEARCH & DEVELOPMENT CENTRE

In arriving at the ranking below, emphasis has been given to: skill levels, especially to university level education and high technology skills; reasonable international transport and telecommunication links; the possible availability of financial incentives and a relatively central location. The diversity of suitable locations is well illustrated by the fact that regions in eight countries are represented in the list.

BAYERN	WEST GERMANY
BERLIN (WEST)	WEST GERMANY
BRUSSELS	**BELGIUM**
DENMARK	DENMARK
HAMBURG	**WEST GERMANY**
HESSEN	**WEST GERMANY**
ILE DE FRANCE	**FRANCE**
IRELAND	**IRELAND**
LUXEMBOURG	**LUXEMBOURG**
NOORD-NEDERLAND	**THE NETHERLANDS**
SOUTH EAST	**THE UNITED KINGDOM**
SUD OUEST	FRANCE
WALLONNE	BELGIUM
WEST-NEDERLAND	**THE NETHERLANDS**
VLAAMS GEWEST	**BELGIUM**
ZUID-NEDERLAND	THE NETHERLANDS

GREENFIELD MANUFACTURING PLANT

For a company seeking a greenfield site for a medium sized manufacturing concern the factors to be taken into account may include: labour availability, skills and cost; the possible availability of incentives; and a reasonable level of purchasing power in the region. Other factors include taxation levels, proximity to the central Community market and the quality of transport infrastructure. The regions of Greece and Ireland (both North and South), offering low taxes and generous incentives, appear well up in the list. But again the diversity of regions is worthy of note with seven countries represented.

ABRUZZI-MOLISE	**ITALY**
CENTRO	**SPAIN**
IRELAND	**IRELAND**
KENTRIKI ELLADA	**GREECE**
NOROESTE	SPAIN
NORTE DO CONTINENTE	**PORTUGAL**
NORTHERN IRELAND	**THE UNITED KINGDOM**
OUEST	FRANCE
SARDEGNA	ITALY
SCOTLAND	THE UNITED KINGDOM
SICILIA	ITALY
SUD	ITALY
SUD-OUEST	**FRANCE**
SUL DO CONTINENTE	**PORTUGAL**
SUR	**SPAIN**
VOREIA ELLADA	**GREECE**

DISTRIBUTION CENTRE FOR COMMUNITY MARKET

If a distribution centre is to be established the key consideration is probably proximity to the main markets of the Community. The ranking below emphasises this factor while taking into account of a range of other considerations especially the nature of the regional transport infrastructure.

BADEN-WURTTEMBERG	WEST GERMANY
BERLIN (WEST)	**WEST GERMANY**
BREMEN	**WEST GERMANY**
BRUSSELS	**BELGIUM**
HAMBURG	**WEST GERMANY**
HESSEN	WEST GERMANY
ILE DE FRANCE	**FRANCE**
NORDRHEIN-WESTFALEN	WEST GERMANY
OOST-NEDERLAND	**THE NETHERLANDS**
RHEINLAND-PFALZ	WEST GERMANY
SAARLAND	WEST GERMANY
SOUTH EAST	**THE UNITED KINGDOM**
VLAAMS GEWEST	**BELGIUM**
WALLONNE	BELGIUM
WEST-NEDERLAND	**THE NETHERLANDS**
ZUID-NEDERLAND	**THE NETHERLANDS**

LARGE EDUCATED WORKFORCE

For a company looking for a large educated workforce some obvious factors to be taken into account are: the availability of labour, labour costs, skill levels, industrial relations, turnover and absenteeism rates and labour regulations; possible financial incentives; tax levels and proximity to markets. Again a wide range of countries are represented.

CAMPANIA	ITALY
CANARIES	**SPAIN**
CENTRO	**SPAIN**
IRELAND	**IRELAND**
NOORD-NEDERLAND	**THE NETHERLANDS**
NORD-PAS-DE-CALAIS	FRANCE
NORTHERN IRELAND	**THE UNITED KINGDOM**
OOST-NEDERLAND	THE NETHERLANDS
SARDEGNA	ITALY
SCOTLAND	THE UNITED KINGDOM
SICILIA	**ITALY**
SUL DO CONTINENTE	**PORTUGAL**
SUR	**SPAIN**
WALLONNE	BELGIUM
WEST-NEDERLAND	**THE NETHERLANDS**
ZUID-NEDERLAND	**THE NETHERLANDS**

MAJOR ENERGY USING MANUFACTURING PROCESS

Emphasis here has been put on energy costs and the requirement for a skilled workforce. Regions in the Benelux countries and France make up the majority of the regions listed.

BRUSSELS	**BELGIUM**
CENTRE-EST	FRANCE
EAST ANGLIA	THE UNITED KINGDOM
HAMBURG	WEST GERMANY
ILE DE FRANCE	**FRANCE**
IRELAND	**IRELAND**
LUXEMBOURG	**LUXEMBOURG**
MEDITERRANEE	FRANCE
NOORD-NEDERLAND	**THE NETHERLANDS**
OOST-NEDERLAND	**THE NETHERLANDS**
OUEST	FRANCE
SCOTLAND	THE UNITED KINGDOM
SUD-OUEST	**FRANCE**
VLAAMS GEWEST	**BELGIUM**
WEST-NEDERLAND	**THE NETHERLANDS**
ZUID-NEDERLANDS	**THE NETHERLANDS**

STRONG LOCAL MARKET

For companies seeking a strong local market, that is, areas with a very high level of purchasing power and close to the centre of the community the regions below are attractive locations. Regions in northern Europe are well represented with five West German regions included.

BADEN-WURTTEMBERG	WEST GERMANY
BERLIN (WEST)	**WEST GERMANY**
BREMEN	**WEST GERMANY**
BRUSSELS	**BELGIUM**
HAMBURG	**WEST GERMANY**
HESSEN	**WEST GERMANY**
ILE DE FRANCE	**FRANCE**
LOMBARDIA	**ITALY**
LUXEMBOURG	**LUXEMBOURG**
NOORD-NEDERLAND	THE NETHERLANDS
NORD OVEST	ITALY
NORTH WEST	THE UNITED KINGDOM
SOUTH EAST	**THE UNITED KINGDOM**
VLAAMS GEWEST	BELGIUM
WEST-NEDERLAND	**THE NETHERLANDS**
ZUID-NEDERLAND	THE NETHERLANDS

SERVICE SECTOR

For a service sector company which requires excellent telecommunication services, a good supply of labour with reasonable skill levels, good physical communications, low labour costs and the possibility of financial incentives the regions below represent possible locations.

BREMEN	WEST GERMANY
BRUSSELS	**BELGIUM**
DENMARK	**DENMARK**
EAST MIDLANDS	THE UNITED KINGDOM
HAMBURG	**WEST GERMANY**
ILE DE FRANCE	**FRANCE**
IRELAND	**IRELAND**
NOORD-NEDERLAND	**THE NETHERLANDS**
NORTH (EAST)	**THE UNITED KINGDOM**
NORTHERN IRELAND	**THE UNITED KINGDOM**
NORTH WEST	**THE UNITED KINGDOM**
SCOTLAND	THE UNITED KINGDOM
SOUTH EAST	**THE UNITED KINGDOM**
VLAAMS GEWEST	BELGIUM
WALES	THE UNITED KINGDOM
WEST-NEDERLAND	THE NETHERLANDS

HIGH GROWTH AND PRODUCTIVITY WITH LOW LABOUR COSTS

For companies seeking expanding markets where high productivity either offsets high labour costs or is coupled with low labour costs the regions below are worthy of further study. Regions in southern Europe are well represented.

BERLIN (WEST)	WEST GERMANY
BREMEN	WEST GERMANY
BRUSSELS	**BELGIUM**
HAMBURG	**WEST GERMANY**
HESSEN	**WEST GERMANY**
ILE DE FRANCE	**FRANCE**
IRELAND	**IRELAND**
LAZIO	**ITALY**
LOMBARDIA	**ITALY**
LUXEMBOURG	LUXEMBOURG
MADRID	SPAIN
NORTE DO CONTINENTE	PORTUGAL
NORTH WEST	THE UNITED KINGDOM
SOUTH EAST	**THE UNITED KINGDOM**
SUL DO CONTINENTE	**PORTUGAL**
WEST-NEDERLAND	**THE NETHERLANDS**

REGIONS WITH LOW TAX/HIGH INCENTIVES AND LOW LABOUR COSTS

The regions below offer a low level of taxes and generous incentive packages combined with low labour costs; a relatively strong local economy and a reasonable level of purchasing power.

ABRUZZI-MOLISE	ITALY
CANARIES	SPAIN
IRELAND	**IRELAND**
NOORD-NEDERLAND	**THE NETHERLANDS**
NORTE DO CONTINENTE	**PORTUGAL**
NORTH (EAST)	**THE UNITED KINGDOM**
NORTH WEST	**THE UNITED KINGDOM**
NORTHERN IRELAND	**THE UNITED KINGDOM**
SCOTLAND	**THE UNITED KINGDOM**
SICILIA	**ITALY**
SUL DO CONTINENTE	**PORTUGAL**
VOREIA ELLADA	GREECE
WALES	**THE UNITED KINGDOM**
WEST MIDLANDS	THE UNITED KINGDOM
YORKSHIRE & HUMBERSIDE	THE UNITED KINGDOM
ZUID-NEDERLAND	THE NETHERLANDS

European Communities — Commission

New location factors for mobile investment in Europe

Luxembourg: Office for Official Publications of the European Communities

1993, 144 pp. — 21.0 x 29.7 cm

ISBN 92-826-5859-7

Price (excluding VAT) in Luxembourg: ECU 18

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CX-78-93-798-2A-C

Price (excluding VAT) in Luxembourg: ECU 18

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ISBN 92-826-5859-7