

EUROPEAN INTEGRATION AND REGIONAL DEVELOPMENT

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1. Introduction

The main objective of this article is to discuss integration problems in the EU countries, by adopting theoretical approaches and indicators in a transformation stage towards a borderless Europe through regional impact on the Union in the short term, and to take a broader view of changes in regional policy and transformation of regional approaches in the long run.

In fact, EU regional policies determined by the Treaty of Rome require the member countries "to ensure their harmonious development by reducing the differences between the existing regions." In this way, EU policies have been formalised as follows: first, to create an awareness of regional problems by organising related efforts such as conferences; second, to coordinate regional measures in the various member countries to avoid wasteful rivalry; and third, to provide capital to regions to 'top up' the various regional measures.

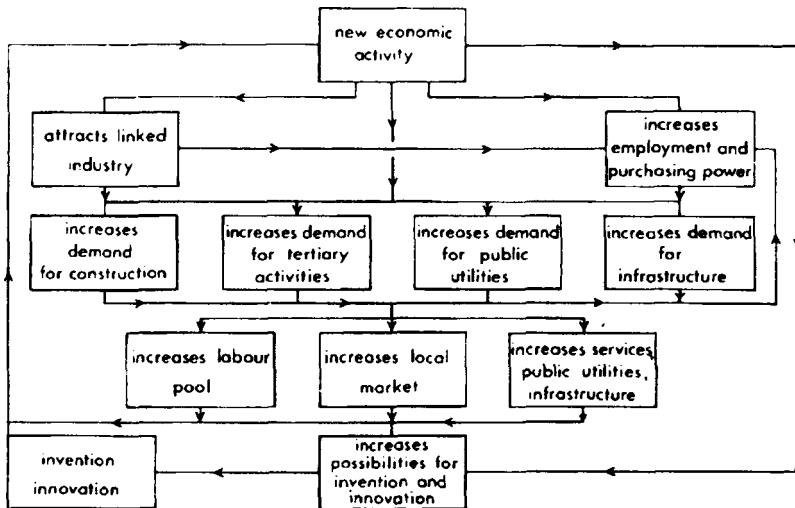
Although an increasing role of regional level of governance is being recognized, the EU is obliged by the Single European Act to reduce the differences between regions. In order to realize the target of social cohesion throughout Europe a number of objectives are accepted in order to provide regional subsidies through the European Regional Development Fund. These cover "regions lagging behind in development", "areas in industrial decline", "vulnerable rural areas" and "regions with very low population density".

In this context, "Introduction" is given as a conceptual background and the sections "Economic Integration, Cohesion and Regional Policy" and "Community Enlargement: Problems and Prospects from a Regional Perspective" are given to describe trends in European regions and examine EU regional policies in the recent past.

Integration, in its specific meaning here, can be defined as the combination of parts into a whole. It is obvious that it is necessary to differentiate between the immediate effects and the long-run effects when evaluating the impact of any economic integration. Immediate effects can derive from the opportunities for rationalisation, economies of scale, specialisation and centralisation within the whole market of the enlarged European Union (Atalik, 1990).

Disparity can be defined as inequality, difference, or incongruity. Meanwhile, as Myrdal (1972) pointed out, '...experience shows that if, by some chance, discrimination in a particular field of social contact is increased or decreased, the psychological force behind it, that is prejudice, tends to change so as to support actual behaviour. This too fits into the general pattern of circular causation'. In this sense, there are certain periods when opposing forces balance one another. However, when the whole system moves after a shock by a push or a pull, then changes in the forces work in the same direction because the

Fig.1. The circular and cumulative causation process, including multiplier effects



Source: Bradford & Kent (1989)

variables are interlocked in circular causation (Fig. 1).

It is argued that the process of cumulative causation suggests that the adoption of innovations is most likely in areas of rapid economic expansion which possess the appropriate resources and entrepreneurial attitudes and where

change is socially acceptable. In this way, successfully growing areas attract more economic activity by means of the increase of further invention possibilities. On the other hand, this process also involves the multiplier effect just as a new or expanding economic activity in an area creates extra employment and raises the total purchasing power of the population. This process increases the demand for houses, schools, consumer goods, and services, thus creating even more employment. It may also attract linked industries which use its products or supply it with materials. These lead to further increases in services, public utilities and construction. The larger labour pool, expanded local market, and improved infrastructure and services attract more economic activities. In fact they benefit from the agglomeration economies that the larger city allows. As a result, the process is cumulative and growth becomes self-sustaining. Meanwhile, this process of growth in a given area attracts migrants, potential entrepreneurs and capital from less advanced surrounding areas.

In this respect, growth is supposed to spread from the core (Bradford and Kent, 1989).

On the other hand, there are long-run effects which have a particular significance for regional issues. The first of these is to increase specialisation and bring prosperity to some regions by stimulating greater efficiency though favouring the most efficient enterprises. Nevertheless, these effects can also aggravate the situation in backward areas. Second, the efforts leading to an equalisation of factor prices, such that capital and labour flow from locations where earnings are low to those where earnings are high, should continue until an optimal position is reached. However, the level of factor earnings will be limited by the enterprises in the developed regions. Third, there might be a tendency to increase the centralisation of economic activities in the developed areas. Nevertheless, these effects will probably result in the replacement of centre-periphery disparities with wider community centre-periphery disparities (Glasson, 1974).

Knox argued that, "...while both peripheral and central regions recorded falling proportions of employment in manufacturing and rising proportions in service industries during 1970s, the decline in peripheral regions' relatively small manufacturing sector was in fact faster than the decline in central regions." (Knox, 1984, p.13). In fact, the periphery's growth in services such as transport, telecommunications, finance, insurance and banking was relatively slow for producer services. Conversely, the growth of education, health, public administration and retailing was relatively fast for consumer services. Meanwhile, it is observed that, '... regional variations in people's perceptions of their well being do not demonstrate any straightforward relationship to the various 'objective' dimensions of regional prosperity...' (Knox, 1984, p. 14).

On the other hand, according to Ziebura (1982), although the Common Market has achieved an unprecedented rise in manufacturing goods the commercial integration of different countries is still very unequal. Besides the increase in protectionist pressures which are the result of the contribution of national neomercantilist policies towards strengthening the role of coordinated economic planning, the growing lack of homogeneity of national economic policies is a response to the differentiation of the economies. According to Morgan Sant (1987), a number of theoretical statements can be derived from certain observations about the distribution and magnitude of regional disparities which vary according to the stage of development of the area, the process of 'cumulative causation,' the industrial composition of the regions concerned, relative location factors, and social and institutional factors in the area.

Concerning interregional trade and economic integration, Bröcker (1988) points out that '...space has to enter into the analysis in two respects: first, different countries are not only separated by artificial trade barriers like tariffs, but also by natural barriers to trade giving rise to costs of transportation and communication. Second, integration may affect different regions of a country in a different way, thereby easing or aggravating regional disparities in a country' (p. 262). Although a great variety of factors influences the costs of trading commodities between regions, Bröcker argues that simple geographical distance is clearly the most important explanatory variable of interregional trade patterns.

The role of regional disparities in integration requires discussion of the development levels of the countries concerned. Firstly, to what extent is the critical minimum effort for economic development needed for a developing area? It was suggested earlier that the 'critical minimum effort' theory is not designed to deal with the structural changes necessary in the long-run for a 'take-off' stage (Myint, 1967). Secondly, as also verified earlier, to achieve higher income levels for an economy requires the development of a certain number of regional centres, in other words, growth points in the course of the development process. In fact, as pointed out by Hirschman (1965, pp. 183-184), '... international and interregional inequality of growth is an inevitable concomitant and condition of growth itself.' Finally, we cite Sant (1987), '... regional disparities in per capita incomes and other economic and social indicators are inevitable.... Different countries have developed different policies to meet them.... The art of formulating regional policies lies in understanding the nature and causes of disparities and in being able to predict the impact which will follow their implementation.' (p. 38).

There are a number of issues to discuss relative to regional integration

occurring through the removal of national borders within the European Union and the development of relationships with the European countries external to the EU. In one respect, the European territory may be subdivided into various types of regions, such as actual administrative regions covering the spatial framework of regional powers of self-government, historical regions with common regional identity based on homogeneity, and meso-regions based on network relationships among a number of urban centres. In this sense, the European economy may be interpreted as a system made up of a combination of a number of European meso-regions based on a transnational dimension. These meso-regions suggest a greater integration of the national economic systems in Europe in the promotion of regional development, by identifying new development axes, with infrastructural links and economic, technological and political relationships (Fig. 2).

The Europe of regions is a concept which is different from that of a supranational European Community, as regionalism and the claim for regional self-government are based on the belief that economic development in individual areas depends mostly on local initiatives and on the exploitation of synergies among local resources (Cappellin, 1993).

Accordingly, the differentiation between the three approaches of a European Single Market, a European Community and the Europe of regions is similar to the three principles at the base of liberal-democratic approach, in parallel to the different organisational forms of the modern theory of the firm (Table 1). In this sense, interregional cooperation suggests a bottom-up approach to European integration, whereas federalism is typical of an 'open system' logic and centralism is typical of a 'closed system' logic.

It is reasonable to identify three different organisational-institutional paradigms, implying a firmly constructed interaction between concepts related to the organisation of relationships between firms and to the forms of political and institutional relationships. Particularly, it is worthwhile underlining the firmly constructed relationship between federalism and modern organisational forms of the economic system and of the individual firms. In fact, regionalism corresponds to a paradigmatic transformation of the structures of society, economy and production technologies in Europe. In this way, the internationalism process transforms nation-states into large regions. This process, inevitably leads to the need for regionalisation of individual national systems, when nationalism or centralism implies opposition to the development of flexible forms of integration which are typical characteristics of regionalism (Cappellin, 1993).

Table 1. Organisational forms and models of institutional integration

	Free Market Model	Centralistic Model	Federalist Model
Organisational Forms	market atomistic competition	hierarchy mass production	Cooperation flexible production
Organisational Principles	initiative responsibility efficiency	authority legal rights economies of scale	Self-government synergy flexibility
Interaction Logics	competitiveness monetary exchange interdependence	homogeneity control/ dependence coordination	Differentiation influence/ leadership negotiation
Geographical Framework	homogeneous space	administrative units	Territorial production systems
Negative Effects	hegemony economicism liberalism	bureaucracy assistance dirigism	conflicts assemblerism veto power
International Relations	free trade single market	mercantilism	Complementarity
Negative Developments	economic/political disequilibria	nationalism/ separatism	confusion/ impotence

Source: Cappellin (1993)

Concerning new perspectives for EU regional policies, it is suggested that EU regional policy could be articulated as two objectives, namely by the programmes for economic development and by programmes for regional European integration (Table 2).

Table 2. Two complementary strategies in EC regional policy

Regional Development	European Integration
<p><i>1. Development Model</i> Economic development is promoted by the interdependence between endogenous and exogenous factors.</p>	<p>Innovation and competitiveness are promoted by interregional networks and interregional cooperation.</p>
<p><i>2. Spatial Framework</i> Individual problem regions. Concentration in EC regions.</p>	<p>Networks of regions. Extension to non-EC regions.</p>
<p><i>3. Policy Strategy</i> Intersectoral integrated programmes. Partnership between local actors. Promote local entrepreneurship.</p>	<p>Tackle European common problems. Promote interregional cooperation. Decrease transaction costs in interregional relations.</p>
<p><i>4 Policy Design</i> Mainly bottom-up. Local authorities propose specific projects. EC elaborates general regulations and evaluates project proposals.</p>	<p>Mainly top-down. EC elaborates strategic plans. Local authorities contribute with specific projects.</p>
<p><i>5 Financing</i> EC financing has a complementary role. Coordination of regional, national, and EC programmes.</p>	<p>EC funding has a principal role. Interregional cooperation. Public-private partnership.</p>
<p><i>6. Institutional Procedures</i> Hierarchical principle. Vertical coordination. Cooperation between regions, states, and the EC Commission.</p>	<p>Subsidiarity principle. Horizontal coordination. Cooperation between regions. Coordination between an assembly of European regions and the EC.</p>
<p><i>7. Relations between Regional and Non-regional Policies</i> Regional policy aims at cohesion as regional disparities decrease. Each policy aims at different and often conflicting objectives. Regional policy has mainly a redistributive and compensatory character.</p>	<p>Regional policy aims at cohesion as European integration increases. Regional and non-regional policies aim at common and complementary objectives. Regional policy contributes to achieving the objectives of other policies.</p>

Source: Cappellin (1993)

These two objectives lead to two different approaches to regional policies. Whereas the first one basically implies a bottom-up strategy based on the paradigm of endogenous development, the second suggests a top-down strategy based on the paradigm of interregional networks. In this way, the development of EU and national programmes directed at a greater integration of the European space should lead to the formation of flexible networks among the various regional and national institutions besides large-scale physical networks. EU regional policy should support interregional cooperation schemes both in the case of the developed and the developing regions. Measures to be used in promoting integration should be supplemented by specific measures for developing ways of avoiding further increases in regional disparities.

In this framework, the role of EU and of national governments would allow cooperation between the various European regions and promotion of innovative initiatives in this context.

Now let us identify major issues in this context, concerning regional European integration in terms of regional impact, regional disparities and relevant policies in order to describe trends in European regions and examine EU regional policies in the recent past.

2. Economic Integration, Cohesion, and Regional Policy

From the point of view of practice in the transformation processes relevant to regional planning in Europe, Glasson (1992) points out that over the period of 10-15 years from the late 1970s to the start of the 1990s, regional planning was "in the doldrums and lost its momentum". However, times change and regional planning is again back on the academic, professional, and- perhaps most important- political agenda (Atalik and Levent, 1998).

In fact, during the last few years unprecedented changes have been observed. As Western Europe moves toward a single market, a 'Europe of Regions' approach has been current. In this context, transboundary economies are becoming more open, while there are certain structural changes toward high technologies and services and more flexibly organized production systems with increasing significance of small firms. Bachtler and Michie (1993) emphasize the start-up of new firms and their development in a number of EC countries since the late 1980s. It has also been recognized that 'the socio-economic structure, lifestyles, expectations, attitudes, and aptitudes of people within a region may have a significant impact on the growth capacity of the region'.

Molle (1983) has outlined a regional innovation policy for the European Community meeting the specific requirements for each region. On the other hand, Illeris (1993), based on his observation of regional development trends in Western Europe in recent decades, has constructed a theory of regional development in

economically advanced societies. In this approach, a largely inductive theory of regional development fits into broader notions of contemporary societal changes in the Western world: 'Whether a region gains or loses depends largely on the local conditions, such as political institutions, regional policy assistance, infrastructure, supply of skilled people, social qualifications, factor prices and population density' (Illeris, 1993). It is considered that this inductive theory could fit well into the picture of contemporary service society, the information society, the knowledge society, the post-Fordist or post-industrial economy, flexible production, and so on. In parallel to the points mentioned above, Rodrigues-Pose (1994) points out three key components in the spatial effects of socioeconomic restructuring in the EC: the significance of subnational units [regions and cities] as "the genuine 'post-Fordist' unit of analysis; the growing prominence of service activities in the configuration of new development areas; and either the 'randomising' of the location of growth poles or the appearance of social dimension as a new determinant of growth". These characteristics, which have been pointed out in a number of works, imply certain requirements for a paradigmatic change involving the humanistic approach, as the subjectivity of both observer and observed must be examined as objectively as possible (Atalik and Levent, 1998).

A number of fundamental differences exist between urban systems in developing and developed areas. In fact, there are degrees of 'developedness' inside developing countries. Therefore, generalizations are often misleading. There may be some models to explain urban systems in developed countries which can be applied in developing countries, while there may be other models which cannot be so applied.

The idea of large urban systems derived from economic growth, as a hypothesis drawn from western experience, seems to be inapplicable to developing countries, since large size in developed countries occurred after periods of economic transformation, whereas in developing countries large size may not have a primary connection with development (Atalik and Levent, 1998). In fact, cultural factors and expectations of the people differ widely between countries.

Among the approaches in the philosophy of science relevant to human geography and the other social sciences, humanistic approaches seem particularly meaningful with respect to the regional differentiation in efforts leading to ecologically sustainable development.

In fact, a number of arguments from actual experience in developed areas (OECD, 1991) and crosscultural differentiation in a developing area, in comparison with other European patterns, prove certain limitations in implementing environmental policies and international commitments for helping towards a sustainable future for European regions. Since the choice of a particular method for a specific project assessment depends on the cultural context, public participation becomes a fundamental factor in playing more significant roles in

environmental decisionmaking and must be considered in addition to considerations of political and administrative structure (Atalik, 1997).

According to Hansen (1988), during the last few decades, regional scientists have not been successful in predicting structural changes in the spatial division of labour. In this sense, it is suggested that a more instructive approach might be to analyse the dynamic interactions among the three functional levels of workplaces, business organization, and spatial systems within regional production processes. In such a context, regional development in the developed countries demonstrates particular changes in regional policy. A number of characteristics are identified including a more flexible, decentralized approach which is geared to regional innovation, technology and services rather than manufacturing, indigenous rather than inward investment, programmes rather than projects, and small or intermediate rather than large firms in the 1990s (Glasson, 1992). These are shown in Table 3.

Table 3. Some changes in regional policy

	Traditional	
Problem Regions	Dichotomous [underdeveloped/ developed]	Multi-faceted [different regional structural]
Major Strategy	Regional growth	Regional innovation
Organizational Form	Centralized, state- sponsored	Decentralized, regional community-based
Dominant Mechanism	Interregional redistribution	Mobilization of indigenous regional resources
Major Orientation	Capital, material Growth [quantitative] Manufacturing projects Few large firms and projects	Information technology, intangibles Flexibility [quantitative] Services and inter- sectoral linkages Programmes Numerous small/intermediate firms and projects
Dynamics	Geographically 'stable' problem Regions fixed set of "planned" growth centres	Rapidly shifting [elusive] problem areas 'Spontaneous' local resource mobilization

Source: Glasson (1992), see also Stohr (1989)

It is argued that, in the developed industrial market economies, regional problems are rarely defined in terms of absolutes when relative imbalances, acting as indicators of the social and economic conditions of different regions, induce regional policy responses from the centre. In this way, a regional problem can be defined only in the context of the country's dominant social and political values. Nevertheless, in many developing countries, an interregional imbalance factor is often given a low priority in the case of national economic and social policies. In the developing country context, a distinction has to be made between regional policies which are regionally based or economic development programs within the framework of a national economic development strategy (Richardson and Townroe, 1986).

Table 3 suggests an inductive rather than deductive approach. The table displays changes in regional policy from traditional to future requirements. Let us examine EU regional policies now.

3. Community Enlargement: Problems and Prospects from a Regional Perspective

In terms of the current rate of interpenetration between Eastern and Western Europe, relations with the Union have grown significantly. Trade volume between the EU and Central and Eastern Europe increased and cross-border travel activity has also risen significantly. Nevertheless, relations between the EU and the countries of Central and Eastern Europe appear to have remained at a relatively low level, in other words current relations could be characterized as relatively 'immature' (EC, 1996). Moreover, economic relations in the areas of trade and investment are restricted to a few sectors such as mechanical engineering, chemicals, electrotechnical engineering, food, textiles and motor vehicles. The immaturity of relations is ultimately attributable to the different standards of living and levels of development, evident in the one way transfer of capital in terms of technology and know-how from the West and the significant migratory flows of people into the Union from the East.

Relations between Western and Non-Western countries have reached the incipient stage of development in the areas of infrastructure, environmental protection and cross-border cooperation. These relations bring a number of opportunities and risks. Figure 3 demonstrates those that have spatial effects on EU territory. The opportunities and risks vary greatly since the heterogeneity of the European Union territory covers a number of locations. It is pointed out that

the crucial determinants in this respect, are a region's degree of involvement and interpenetration with Central and Eastern Europe and its response potential. A high degree of interpenetration means that the potential effects on a region will be greater, whereby the determinants of the degree of interpenetration admit both options, both opportunities and risks. If a region has a large response potential, it may become a potential winner by growing both with the East and West.

If the response potential is weak, the increasing competition may pose a danger. Consequently, a number of issues arise in respect of the probable effects on the EU territory: 'Which areas of the Community should expect the greatest short-term impact? Which regions have growth potential? Which parts of the Community, on the other hand, will most likely be subjected to adjustment pressure?' (EC, 1996).

In fact, the probable rate of the interpenetration potential of a region can be determined by means of the economic sensitivity and accessibility potential determinants, while actual rate of interpenetration between regions in East and West is scarcely quantifiable. Concerning economic sensitivity, those regions in which the key sectors prevail will become more involved in the interpenetration process, both in the field of reciprocal trade and investments. Concerning accessibility potential, a potential index is suggested based on earlier concepts of industrial locational analysis, to measure the locational advantages or disadvantages of a region compared to others in terms of travel time or distance from region of origin to a set of relevant destinations in other regions. In fact, this measurement could meet both points of view of accessibility, in terms of producers wishing to gain access to market potentials and consumers requiring goods and services. In this way, a determination of comparative advantage for regions with higher potential values, calculated as a ratio between accessible activities and distance would be constructive. The most common formulation of the potential concept is given below (EC, 1996):

$$P_i = n \sum_{j=1}^n \frac{M_j}{D_{ij}} + M_i$$

where

P_i = potential of region i [base region]

M_j = measure of volume of economic activity in region j [destination region]

M_i = ditto for originating region i

D_{ij} = measure of distance or cost of transport between i and j

n = number of regions

Fig. 3. Opportunities and risks ensuing from the opening of the national border in the short term

Opportunities	Risks
Opening up new markets	Intensification of competition
Using comparative advantage	Adjustment pressure on sensitive sectors
Transnational cooperation	Increasing competition for border locations
Increasing transport and traffic flows	
Changes in environmental conditions	
Future migratory movements	

Source: EC 1996

However, the interpenetration potential covering economic sensitivity can not show us whether adjustment pressure or growth impetus is more likely to occur. In this respect, the response potential is inevitable.

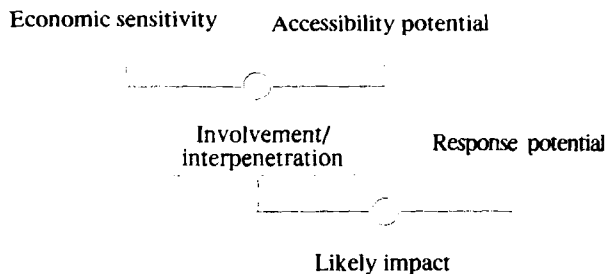
This may be measured in terms of indicators of regional competitiveness. A multi-step procedure is used, since analysing the regions in a single-step process, in other words taking all three determinants into account at the same time, presents too complex and confusing model and information could be lost if many indicators are densely aggregated (Fig. 4).

From the viewpoint of economic sensitivity, industrial sectors could be selected with respect to the business surveys and the regions of the EU could be classified in terms of specific sensitivity types to show the most affected branches such as mechanical engineering, extraction and preliminary processing of metals, textiles, clothing industry and food industry. Additionally, those branches could be selected which are of special importance in terms of export relationships between Eastern Europe and the EU (EC, 1996).

Fig. 4. Steps of the likely-impact model

Assumptions: Spatial impact depends on:
 Involvement/interpenetration } of a region
 Response potential

Model:



'Spatial sensitivity in terms of the importance of the agricultural and food sector in the various regions produces a very different picture. Peripheral rural areas, where up to 30% of the people are employed by the agricultural and food sector, are affected most. Two belts of high spatial sensitivity become apparent: the areas situated on the western borders of the Community [Ireland, Western France, Spain, Portugal] and the eastern parts of the Community [new German countries, eastern coast of Italy and Greece]' (EC, 1996).

It is argued that accessibility potential should allow the combination of different travel times or distances with changing accessible economic potentials. 'This means that weightings are to be used which change as a function of the degree to which a region is open to the European Community. In order to take into account the varying accessibility potentials of the markets the individual countries were assigned different weighting factors. The different weighting factors for the countries of Central and Eastern Europe are designed to express the level reached by the reform processes and the intensity of existing relations between the European Community and these countries' (EC, 1996).

'Regional population figures were used to simulate accessible potentials. The calculated index represents a ratio between accessible potential [i.e. population] and travel time. It is important to note that the index is without dimension and allows only a relative measurement of location advantages or disadvantages and their change over time' (Table 4).

Table 4. Index of accessibility potential weighting factors [short-term effects]

Countries/regions	Weighting factors
EUR 12	100
EFTA	75
Turkey	50
Poland, Hungary, Czech Republic	50
Slovakia	50
Romania, Bulgaria	20
Slovenia	20
Estonia, Latvia, Lithuania	20
Former Yugoslavia (excluding Slovenia)	10
Albania	10
Russia, Ukraine, Belarus, Moldova	10

Source: *Empirica*

Note: The weighting factors were determined on the basis of statistical data (e.g. intensity of trading relations) and of judgements passed by the East European

experts on the progress of reforms, opening of the CEECs etc. by mid-1992. The most recent developments may recommend a slight readjustment of the weighting factors (e.g. upwards for Slovenia). However, this would only slightly affect the results of the analyses as test runs have shown.

Combining the two determinants, economic sensitivity and accessibility potential, produces a nine-square matrix illustrating the interpenetration potential of the regions (Tables 5, 6).

The diagonal [types 3, 5 and 7] illustrates an average interpenetration potential. The squares lying above and below this diagonal stand for high and low interpenetration potentials for a region, respectively.

Table 5. Interpenetration Potential and Types of Region

		<u>Accessibility Potential</u>		
		High	Moderate	Low
Economic Sensitivity	High	Type 1	Type 2	Type 3
	Moderate	Type 4	Type 5	Type 6
	Low	Type 7	Type 8	Type 9

Table 6. Response Potential and Interpenetration

		<u>Interpenetration</u>		
		High	Moderate	Low
Response Potential	High	Type 1	Type 2	Type 3
	Moderate	Type 4	Type 5	Type 6
	Low	Type 7	Type 8	Type 9

In the table, the ends of the diagonals show extreme points of possible spatial effects, respectively:

Type 1: Regions with growth potential.

Type 7: Regions under adjustment pressure.

Type 3: Regions with future growth potential if their interpenetration potential increases.

Type 9: Regions under future adjustment pressure if their interpenetration potential increases.

Regions lying between these extremes will experience negative or positive effects to a lesser extent.

Meanwhile, after reviewing the contributions of the different schools of thought on regional growth, empirical studies into the differential development of European regions covering the whole period of the industrial revolution to the present time and the post-war period characterized by increased economic integration, and a number of prospective studies on the likely behaviour of the regional system of Europe, Molle and Boeckhout point out that 'All in all, these factors are likely to bring more disparity. Therefore, increased attention should be given to policies that stimulate new ways of mobilizing the diverse potential of the regions of the enlarged Europe' (Molle and Boeckhout, 1995).

After an examination of GDP per capita growth rates among subnational regions of the European Union between 1950 and 1990 Armstrong added his own clarifications: 'Estimation of a catch-up growth model using a modified and larger set of regions than previously the case suggests that existing measures of convergence rates need to be revised downwards and that convergence rates have been reduced in the 1970s and 1980s compared with the 1960s' (Armstrong, 1995).

On the other hand, Terrasi, after a review of national and spatial factors in EU regional convergence, and an analysis through the Theil index of concentration for different groups of countries and periods of time, suggests the diminishing weight of national factors in the EU convergence process and points out that '... the process of European convergence has been a very discontinuous one, due to the continuing change in the surrounding environment in which convergence has taken place...' (Terrasi, 2000).

Meanwhile, Cornett, after an analysis of interregional specialization and integration, suggests that, 'The survey of coherence based on economic figures indicates that the convergence problem in an enlargement perspective cannot be solved by economic means, but requires a political and social accept of differences in an enlarged European Union. The historic analysis of the current EU countries has shown that real convergence seems to be possible, but at a very low speed.' (Cornett, 2000).

In fact, regional disparities in the EU are obvious, and are attributable equally to the international component and to the regional disparities within the countries (Atalik, 1990 and EC, 2001). After a number of years of the regional development programme there were enormous disparities between the Member States both in unemployment rate and by per capita GDP. Although there was considerable overall development for the whole area, no fundamental change could be discerned in regional disparities. This result should give an argument for the theory of comparative advantage when the relevant factors work for interests in the developed areas.

4. Concluding Remarks

With respect to the extent of national and regional disparities and the dynamics of regional change such as structural economic change, corporate reorganisation, the decentralisation of economic and social life, and the extension of government influence and political integration, it has been verified that certain differences between nations remain substantial. At the regional level, contrasts are even greater and the pattern of disparities is more sharply defined.

Nevertheless the actual findings about the European Union and regional disparities should not be decisive for the decision making processes in the EU enlargement and integration. It may be said that if functional regions/ meso-regions are indispensable for regional growth in an area, then regional disparities will be inevitable in the EU (Atalik, 1990).

Meanwhile many new approaches have emerged in developed countries as a response to a number of new conceptualisations. While the sustainable development concept now assumes a significant place in regional science and regional planning, the concepts of globalisation and restructuring are also gaining in significance. Meanwhile, it appears that urban issues, especially in the second half of the 20th century, contributed to a reorientation of urban and regional research. In fact, new concepts relevant to regional science have emerged in this evolutionary phase. In order to evaluate these concepts it is essential to consider the transformation process as a whole and take into account the relevance of the experience of developed and developing countries (Atalik and Levent, 1998).

Despite the diversity of the contributions from sociology, economics, architecture and civic design, transportation, communication, and political science, a common ground has emerged on the subject of the spatial aspects of human behaviour and the necessity of a systems approach is evident. Moreover, the study of locational patterns should be replaced by more objective methods of analysis and measurement so that they may be recognized with a degree of accuracy leading to a quantitative revolution instead of the former subjectivity of mere verbal description.

Table 7. Transformation of regional approaches in the long run

Traditional	Contemporary approach
Morphology	Social science/ ecology
Qualitative	Quantitative
Deterministic	Probabilistic
Partial/relational	Systemic/ integrated
Tactical	Strategic
Central	Local
Urban	Regional
Managerial	Participatory

Source: Atalik and Levent (1998)

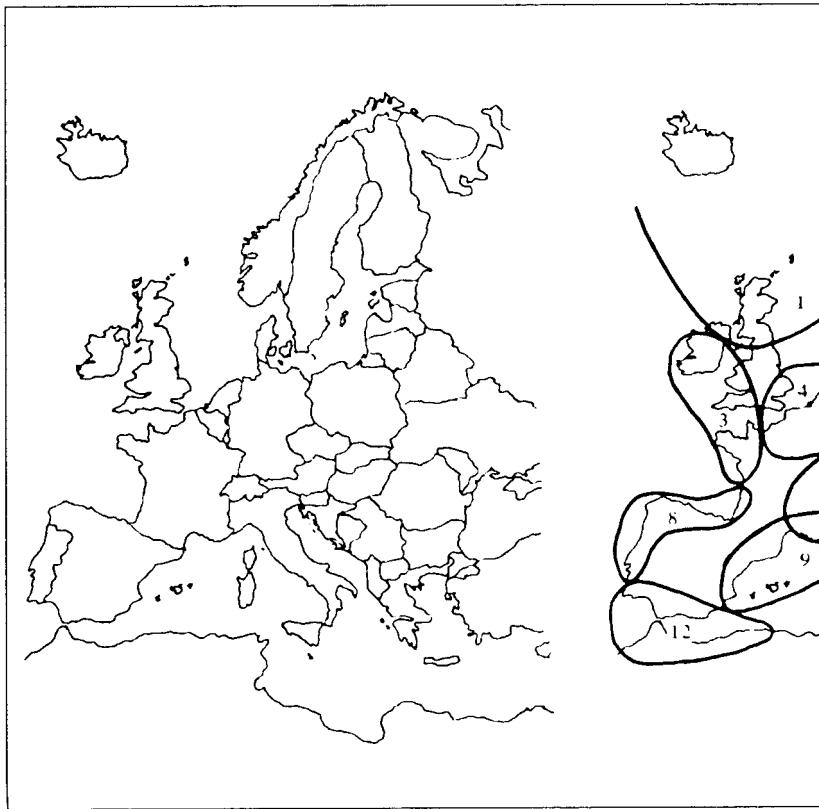
Briefly, it might be useful to demonstrate clearly those fundamental changes relevant to the area of regional science and its practice. On the one hand, since the 1950s there have been essential transformations from the traditional to the contemporary approach, with a number of arguments favouring social science/ecology rather than morphology, quantitative rather than qualitative, probabilistic rather than deterministic, systemic/ integrated rather than partial/relational, strategic rather than tactical, local rather than central, regional rather than urban, and participatory rather than managerial approaches (Table 7). In this way, new development trends emerge when interregional cooperation implies a bottom-up approach to European integration.

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Fig. 2: (a) The Europe of nation-states, (b) The Europe of regions



Source: Cappellin (1993)

