Part B

The territory of the EU:
Trends, Opportunities and Challenges
1 Spatial Development Conditions and Trends in the EU

1.1 Geographical Characteristics of the EU

(231) The European Union is the third richest economic region in the world (by GDP/inhabitant) after Japan and the USA. The Latin American MERCOSUR amalgamation has a leading position amongst other developing economic alliances (see Table 2). The fundamental geographical factors of the EU relevant to spatial development policies are comparable neither with the USA nor with Japan nor with MERCOSUR. In contrast to the solid land mass of the USA and MERCOSUR and the islands which make up Japan, the physical characteristic of the European Union is its “peninsular shape” on the Western fringes of the Eurasian continent (see Fig. 8). Many of its Member States are also islands or peninsulas. While the whole of the USA has just under 20,000 km of coastline, the coastline of the EU is estimated at approx. 60,000 km (see Fig. 9).

(232) However important closeness and affinity to the sea is, accessibility by land of nearly all regions is a feature of the EU, thanks to its natural features. Overcoming major natural barriers has been enormously improved recently by large-scale technical projects such as the Channel Tunnel and the fixed Øresund link. These have clearly enhanced spatial cohesion within the EU. However, seas still represent significant barriers for some peripheral areas of the EU, such as Greece, separated by the sea from its nearest EU neighbour, Italy, and thus from the rest of the territory of the EU (see Map 7).

(233) In the same way, particular attention should also be paid to the seven ultra-peripheral regions mentioned in Article 299-2 of the Treaty of Amsterdam. As a result of their geographical position, they are closely linked to other continents and thus give the EU a headstart in co-operation with their neighbouring countries, such as Martinique or French Guiana with other Latin American countries. Support should be given to setting up and strengthening economic, social and cultural development centres both within these ultra-peripheral regions and neighbouring countries as well as for the entire region they form.

(234) Nowadays, seas, large rivers and mountain ranges generally no longer act as physical, economic and cultural barriers. Some have even become attractive residential,

Table 2: Statistical Comparison of EU / USA / Japan / MERCOSUR

<table>
<thead>
<tr>
<th></th>
<th>EU-15</th>
<th>USA</th>
<th>JAPAN</th>
<th>MERCOSUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population in 1000</td>
<td>(a)</td>
<td>372 082</td>
<td>263 250</td>
<td>125 095</td>
</tr>
<tr>
<td>Area in 1000 km²</td>
<td>(a)</td>
<td>3 236</td>
<td>9 364</td>
<td>378</td>
</tr>
<tr>
<td>GDP total in ECU billion (1996)</td>
<td>(a)</td>
<td>6 776</td>
<td>6 014</td>
<td>3 620</td>
</tr>
<tr>
<td>GDP per inhabitant in ECU (1996)</td>
<td>(a)</td>
<td>22 650</td>
<td>28 760</td>
<td>6 700</td>
</tr>
<tr>
<td>Imports/inhabitant in ECU (1996)</td>
<td>(a)</td>
<td>2 404</td>
<td>2 194</td>
<td>335</td>
</tr>
<tr>
<td>Export/inhabitant in ECU</td>
<td>(a)</td>
<td>1 828</td>
<td>2 582</td>
<td>289</td>
</tr>
<tr>
<td>Land borders with countries outside the economic area in km (of which with Central and Eastern European countries)</td>
<td>(b)</td>
<td>9 305</td>
<td>12 248</td>
<td>0</td>
</tr>
</tbody>
</table>

(b) CIA - The World Fact Book, Washington 1997

![Fig. 8: Geographical Overlay EU - United States](image-url)
business and tourism areas, resulting in conflicting spatial development objectives due to different user demands. Large river valleys suffer less from the separating effects of rivers than from high density of housing and traffic. Approximately one third of the urban EU population (cities with more than 20,000 inhabitants) lives close to the coast (within 20 km); if the river valleys of the fifteen largest European rivers are included, this amounts to more than 50% of the total population. The Alps (in terms of habitable area) comprise one of the most densely populated regions of Europe. Rivers, lakes and mountains are identity-giving entities. The Alps, the Danube, the Baltic and Mediterranean Seas are good examples where integrated approaches are required to tackle common issues, strengthen common assets and promote greater spatial cohesion.

(235) During the Cold War era, there was the general perception that the “peninsula” of Western Europe was effectively an “island”, especially in terms of human perception. The political division between East and West was a much greater barrier than the Atlantic to the West. This suddenly changed in 1989. The view to the East, to the other half of Europe, has opened up.

(236) The different climatic conditions in the sub-areas of the EU provide natural boundaries and form another important factor for European spatial development. Extreme cold, for example, can result in major costs, so that peripherality from markets is further hampered by transportation problems. Water supply problems constitute an obstacle to regional development in parts of the southern Member States.
The variety of cultural heritage in Europe can today be regarded as having an inestimable value and being the foundation upon which Europe is growing closer together. Apart from the basic geographical factors, different cultural, political and economic development paths have substantially shaped the current spatial structure of the EU. Different language and cultural areas and different ways of life have developed in the different parts of Europe. There are considerable disparities in the population density, the degree of urbanisation, the level of development and prosperity. This applies on a large scale (e.g. from the perspective of central and remote regions). This also applies, however, on a small scale within Member States and between regions within the EU.

The trends in spatial development in the EU described below will, of course, not be identical in each part of Europe, and in some areas experiences will be different or even run counter to the general trend. Trends are briefly outlined here from the European perspective; some statements require more detailed scrutiny and must be analysed further.

The following chapters do not contain any new geographical analyses. They refer to the many studies and analyses carried out by European, national and other institutions since 1990, particularly to those carried out by the Commission (Europe 2000, Europe 2000+ and by individual EU presidencies).

1.2 Demographic Trends

Three trends will dominate population development in the EU in the next 20 to 30 years:

1. decline in population;
2. migratory movements; and
3. shifts in age profile.

Natural population growth in the EU has been very low for years and is showing a declining trend. Without considerable changes in the birth rates of the EU fifteen, a shift from population growth to population decline could begin to appear around 2020 (see Fig. 10). Against this background, international and interregional migratory movements are of increasing importance for EU population development and its sub-areas. The natural growth rate is currently less than 0.1 % (1995). On top of this, however, is net immigration into the EU, which has been approximately 0.2 % of the total population per year in previous years. Net immigration therefore accounts for two thirds of total population growth and will in future probably become its only source. The regional distribution of immigration into the EU varies significantly.
Language barriers and administrative obstacles contribute to the fact that the migration rate between EU Member States is relatively low. Considerably higher, but on an international basis (for example compared to the USA) still very low, are migratory movements between regions within Member States.

Most immigrants settle in urban areas, thereby reinforcing existing urbanisation patterns. Within the Member States as well, people tend to move from regions with high unemployment to those with lower unemployment figures. The extent of this tendency varies, however, between individual Member States. Many of the highly urbanised regions, especially in Northwest Europe, are likely to experience higher population growth in future, while regions with very low population densities, for example in the Iberian Peninsula, in France, in Northeastern Germany and large parts of the Nordic countries, are likely to continue to lose population (see Map 8).

Despite the immigration of predominantly young people, the average age of the EU population will continue to increase (see Fig. 11). The changing composition of the population, their preferences for where they live and the characteristics of housing will affect spatial planning. The future society of the EU will be characterised by a higher proportion of older people, who will, in contrast to previous generations, be more mobile, prosperous and active.
Children and young people will increasingly be from immigrant families and will often be caught “between cultures”. As has been the case with the extended family of typical rural society, the “average family” (married couple with children) is also on the decline. People living alone, single parents (often financially weak) and childless couples (people with two incomes and therefore comparatively financially strong) are increasingly characterising society in the EU. Different groups make different demands on space; social requirements for land use are becoming more complex. As a result of unemployment and the crisis in the welfare state, opportunities for satisfying requirements are running out. (245) In general, this is leading to various spatial development trends overlapping. Societal changes are leading to smaller households and this is, in turn, leading to a growing demand for housing despite the decline in population. There is also a trend to move closer together for financial reasons, in particular amongst young people, in regions with high unemployment and where the supply of affordable housing is poor. Changes in the population structure are also reinforcing the trend towards urbanisation. In cities, single parents find better services; households where both people are earning find a better range of employment opportunities; and people living alone find better leisure and cultural facilities. The new requirements are being fully met with far-reaching spatial consequences. “Pensioner towns” are thus also increasingly developing in Europe (as has been the case in the USA for a long time) in regions which are scenic and have a more favourable climate.
1.3 Economic Trends

(246) Demographic trends also constitute a great challenge to regional economic development and, thus, to European competitiveness. They also raise development issues concerning the sustainable development of metropolitan regions and the future viability of rural regions. Restricted mobility reinforces the need for regional policy to promote the creation of jobs. These are important aspects of a development towards greater economic and social integration in the EU.

(247) Sustainable development requires a policy which promotes competitiveness and supports economic and social integration. The regions of Europe need competitive firms in order to create the jobs which are so important for the aspirations of people and to generate tax revenue (necessary for public services). Table 2 shows that the EU generates the highest gross domestic product world-wide. In the balance of trade, (export/import), the EU is in second place after Japan.

(248) The regional disparities in GDP per capita provide a starting point for European regional policy (see Map 9). The Periodic Reports and the Cohesion Report by the European Commission indicate that the economic situation of the Member States has become more similar in recent years (in particular due to the catching-up process in Ireland). But despite the financial efforts of EU regional policy, there has been a very slow decrease of disparities between the regions of the EU (measured in terms of GDP

Map 10: Unemployment

Unemployment Rate 1997

NUTS 2

- below 6%
- 6% up to below 10%
- 10% up to below 14%
- 14% and more

Source: Eurostat

Açores (P)
Madeira (P)
Canarias (E)
Guadeloupe (F)
Martinique (F)
La Réunion (F)
Guyane (F)
per capita). The economic activity of the EU is concentrated in a core area: a pentagon defined by London, Paris, Milan, Munich and Hamburg. This area represents 20 % of the total area and contains about 40 % of EU citizens producing about 50 % of the EU’s total GDP51.

(249) For a thorough assessment of regional competitiveness, other criteria such as employment, productivity, investments and balance of trade must, however, be taken into account. The value of gross domestic product as an indicator for the regional distribution of income and tax revenue is limited. The Cohesion Report refers to the fact that a lot of national policies influence the distribution of income, chiefly through taxes and benefits. That is why the regional distribution of Personal Disposable Income (PDI) differs considerably from the distribution of income before taxes and benefits. The Cohesion Report concludes that the regional disparities of PDI, after taking account of the effects of tax and public spending flows through national budgets, are between 20 % and 40 % lower than the regional disparities in GDP per capita in the Member States52.

(250) Unemployment in the EU is the greatest challenge to European integration policy. Following a peak of 11.2 % in the unemployment rate in 1994, it fell to just under 10 % by the end of 1998. However, this still means that 16.5 million people within the European Union are unemployed! About half of all unemployed people, i.e. about 5 % of the working population, had been unemployed for longer than a year in 1997 (by way of comparison: the long-term unemployment rate in the USA is below 1 %). There are very distinct regional differences. In 1997, unemployment rates ranged from 2.5 % in Luxembourg to 32 % in Andalucia in southern Spain and 36.8 % in the French overseas department of Reunion. Most of the regions with the lowest unemployment, with the exception of Portugal, are situated in the centre of the EU (Luxembourg, southern Germany and northern Italy). The regions with very high unemployment (more than 20 %) are, in contrast, situated in the periphery, especially in Spain, southern Italy, eastern Germany as well as in the French overseas departments (see Map 10). The unemployment rate for women is 12.5 %; this is three percentage points more than that for men. A total of more than 20 % of young people under 25 are unemployed in the EU53.

(251) Large industrial enterprises have often formed the basis for the prosperity of many cities and conurbations in the EU. Although the headquarters of many large companies continue to be in large cities, production is increasingly taking place in other locations. Regions in rural areas will benefit from this. Large companies will continue to be important, but they cannot be relied upon to create new jobs on a large scale in the future, particularly at their headquarters. The shift from manufacturing to services and structural change within companies (such as the increasing outsourcing of management functions to independent subcontractors) will, however, lead to the establishment of new companies.

(252) The EU’s economy and employment are based on small and medium-sized enterprises (SMEs), although they vary in nature (see Fig. 12). Of the 160 million working population, 101 million are employed in a total of 16 million companies (excluding agriculture). 23 % of employees in the EU are employed in very small enterprises (1-10 workers), whereas the percentage in the USA is 12 % and only 7 % in Japan. Very small enterprises predominate in southern Europe (on average 1.8 employees in Greece and 4.7 in Spain). Results of research state that, while the rate for establishing new firms in the USA is higher than in the EU, the likelihood of survival for the new firms is greater in the EU54.

(253) Flexibility and innovation are important preconditions of economic development. In this regard, small and medium-sized enterprises offer many advantages. Due to the short decision-making channels, they are often closer to customers and are able to react more quickly and flexibly to customers’ needs. As far as location is concerned, however, SMEs are normally less flexible. As soon as they are established in a particular area, they become very strongly dependent on that local area. There are considerable personal factors which keep a small firm in the region in which both managers and employees live. Some firms are also locationally and functionally tied to a single large customer or sector of industry. In addition to this, many SMEs do not have the manpower and financial resources required to evaluate whether re-location (and, if so, to what new area) would be profitable.

(254) In terms of value, roughly 60 % of exports from Member States are traded within the EU, predominantly between neighbouring countries55 (see Fig. 13). Through
events and developments in the Middle East and North Africa, which could have significant implications for the location of production activities and patterns of transportation.

(255) A substantial share of trade represents intra-company flows, caused by trends towards specialisation, economic networking between firms, geographical division of labour and larger-sized markets. Closely connected with trade interdependencies is the direct investment by companies (sometimes complementary, sometimes substitutive). Direct foreign investment in the EU increased from less than 50 billion ECU to more than 350 billion ECU between 1985 and 1995. Development prospects for European regions are closely linked to their ability to offer competitive products on the world market and attract direct foreign investment. In the more recent past, Ireland and Scotland have especially benefited from direct foreign investment (mainly from North America and Southeast Asia).

(256) European Monetary Union will trigger off further intensification of EU domestic trade and further specialisation within the EU. This will enhance the competitiveness of the EU on the world market and attract direct foreign investment. In the more recent past, Ireland and Scotland have especially benefited from direct foreign investment (mainly from North America and Southeast Asia).

(257) New information and communications technologies will also be of considerable importance to spatial development. Their spatial effects are, however, unclear and research findings are not yet sufficient for a reliable estimate of these effects. On the one hand, these new forms of technology may intensify urban concentration, while on the other they also offer opportunities for promoting development in more remote areas of the Union. The latter will not, however, happen “automatically”. Instead, regional policy strategies must be developed in order to realise the potential use of new information and communications technologies useable in remote regions.

(258) In general, economic trends have in the past mostly led to an increase in regional disparities in development. It is important to continue to observe these trends and address them using an active spatial development policy. The competitiveness of European regions must be increased by enabling regions to achieve their long-term potential of sustainable development. A policy aimed at creating a diversified economic structure in the regions represents a good foundation for the balanced distribution of jobs and would, therefore, have a great influence on settlement patterns and migratory movements.

1.4 Environmental Trends

(259) The third main group of trends concerning future spatial development in the EU relates to the environment. Careful use of natural resources and protection of the environment (air, water and soil) from harmful substances are important objectives which can be achieved only with international and world-wide co-operation. A modern and effective form of spatial development, which takes the use of resources into account, can help here.

(260) Although relatively few species of Europe’s flora and fauna have become extinct during this century, the EU’s biodiversity is affected by decreasing species numbers and loss of habitats. Urban development, the drive towards more productive agriculture, afforestation, unrestrained tourism (for example in coastal areas and islands, particularly during the summer months), damaging infrastructure projects have all contributed to the loss of habitats through destruction, modification and fragmentation of ecosystems. For example 75% of the dune systems of southern Europe (from the Straits of Gibraltar to Sicily) have disappeared. Also the Loire estuary, which comprised a wide diversity of natural habitats, has seen its natural banks decline from 300 km at the beginning of the century to 30 km.56

(261) The richness and diversity of landscapes are distinctive features of the EU. Landscapes are valuable in relation to the sustainable use of natural resources; as wildlife habitats; as open space or with regard to their beauty or the cultural elements they contain. They also yield economic benefits – for example they can form the basis of a tourist industry as in coastal areas and in the Alps. Landscape quality has been under pressure from urban development, tourism, recreation, mining, and changing agricultural and forestry practices which have resulted in the replacement of natural diversity.
(262) In some Mediterranean regions, such as Sardinia, intensive sheep farming has affected soil structure and therefore landscape quality resulting in a degree of desertification. But the importance of conserving landscape in order to halt the loss of biodiversity and cultural identity is increasingly being recognised. This goes beyond the more limited objective of species or site protection. For example Sardinia, Tuscany, Languedoc-Roussillon, Andalucia and Catalonia are among the regions jointly pursuing a policy on conservation and management of Mediterranean landscapes. The Council of Europe has promoted a range of initiatives related to landscape conservation.

(263) Almost 22 billion tonnes of carbon dioxide (CO₂) are released each year world-wide through the combustion of fossil fuels (petroleum, coal and gas)³⁷. CO₂ is regarded as being chiefly responsible for the greenhouse effect, which could lead to an increase in the sea level in the long term and beyond that to further natural disasters (e.g. floods and droughts). The EU accounts for approx. 15 % of worldwide CO₂ emissions; other important economic regions emit more than 20 % (USA 24 %, Japan 5 % and MERCOSUR 2 %)⁸⁸. The economically powerful nations (this applies in the world-wide comparison and also within the EU) are the main sources of emissions, both in absolute terms and per capita. The reduction in CO₂ emissions must be tackled world-wide. The industrial regions, in particular, are being asked to make their contribution to the world-wide reduction in “greenhouse gases”. With the Kyoto Protocol of December 1997, quantitatively fixed and compulsory commitments to reduction were agreed for the first time for the most important greenhouse gases. Thus, the EU has undertaken to reduce its emissions by 8 % (compared with 1990) by 2008 – 2012.

(264) The European regions produce 25 % of global atmospheric emissions of sulphur dioxide and nitrogen oxides. Ammonia emissions from agriculture still exceed critical levels in 60 % of the European territory⁹⁹. Sulphur dioxide emissions are largely due to the combustion of oil and coal in power stations, industry and private households. Nitrogen oxides are emitted by combustion processes with transport, power generation and domestic heating the most important sources. Most ammonia in the atmosphere is due to spreading of animal manure.

(265) The effects of acidification depend on the magnitude of deposition and the inherent sensitivity of soil and water. They may also occur at a great distance from the source. European and national legislation, improvements in combustion technology and improved methods in agriculture have led to a reduction in acid deposition, but in more than half of the European continent the level of deposition is expected to remain in excess of critical loads, resulting in long-term risks to eco-systems.

(266) Water consumption in private households, agriculture and industry has increased greatly in the past few years both in the EU and in Europe (see Fig. 14). Depending on the degree of industrialisation, climate and agricultural irrigation, the amount and pattern of water consumption varies significantly. Increasing consumption can particularly be seen in agriculture, while consumption in private households generally remains constant or is only increasing slightly. It is even declining in some Member States.

(267) The supply and quality of drinking water is of particular importance. Especially in southern Europe, where water supplies are already being used very intensively and water shortage is a frequently occurring problem, the drinking water supply system is causing problems. Groundwater depletion is occurring in many regions. As two thirds of the population in the EU obtain their drinking water from the ground water reservoir, this has effects which must be taken seriously. In addition, there are growing risks of salinization of ground water, especially in some Mediterranean coastal areas and in the west of the Iberian Peninsula, with serious consequences for agriculture. In many EU regions, leakage from public distribution systems represents a large problem. The losses are estimated at up to 50 % in some areas⁶⁰. A draft EC directive, one of whose aims is to require integrated management of water catchment areas, is currently being negotiated.

(268) The degree of water pollution also gives cause for concern (ground water, surface water, sea water). Legislation and action programmes on the treatment of domestic and industrial waste have helped improve the quality of surface water, but amounts of polluting substances from agriculture and industry continue to threaten water quality. While organic waste materials are now extensively under control in Central and Western Europe, nutrients from sewage and agriculture contribute to a widespread eutrophica-
tion of rivers and lakes. Pesticides continue to pollute surface and ground water, reduce biodiversity and find their way into the food chain. Pollution of ground water will be a long-term problem, as the natural regeneration of this resource is extremely slow.

(269) The use of land for urban development and transport in the EU continues to harm the environment through, for example, loss of high quality arable land, destruction of biotopes and fragmentation of eco-systems. In some regions there are increasing spatial conflicts between additional housing requirements, commercial developments, agricultural use and protection of open space. On the other hand, there are 2000 km² of derelict industrial sites in Europe, which are, however, unevenly distributed. Reclamation costs are estimated at 100 billion ECU\(^61\). This is a huge potential of areas for housing development which avoid further urban sprawl in the catchment areas of large cities.

(270) A specific form of land use which presents special challenges to spatial development strategies of cities and metropolitan regions, and also rural regions, is waste disposal sites. Despite the application of waste avoidance strategies, the amount of waste in the EU has increased. As far as quantity is concerned, the most important sources of waste are agriculture, industry, households and mining. The proportion of hazardous waste has greatly increased.

(271) In a number of Member States there are moves to introduce integrated waste management as well as separate waste collection and recycling. Nevertheless, waste recycling in the EU is still taking place on too small a scale.

(272) Despite modern techniques and more stringent provisions, waste disposal continues to result in the discharge of pollutants into soil and ground water (e.g. at disposal sites), produces CO\(_2\), methane and toxic gases, and leads to emissions of dioxins, hydrochloric acids and mercury (e.g. during waste incineration).

(273) Modern methods of waste management, waste avoidance and waste disposal are also part of a sustainable spatial development policy. This includes the objective of tackling waste problems in their own regional context and avoiding waste transportation (in particular transportation of toxic waste and nuclear waste) over long distances.

(274) Natural disasters, which not only alter the landscape quite suddenly as a result of forest fires, earthquakes or storms and substantially increase soil pollution but can also in some cases have disastrous ecological consequences, represent a further strain.

2 Spatial Development Issues of European Significance

2.1 Trends Towards Change in the European Urban System

(275) The EU is characterised by a high level of urbanisation and strong regions. Nevertheless, only around a third of the population lives in major metropolises. In contrast to other continents, spatial settlement patterns in the EU are characterised by rural areas that are relatively densely populated. About a third of the population lives in small and medium-sized cities outside the agglomerations. The decentralised history of Europe - characterised by independent nation states, many of which in turn originated relatively late from smaller regional states - has favoured the emergence of a strong polycentric urban system. A complex web of large, medium-sized and smaller cities has arisen, which in large parts of Europe form the basis for urbanised spatial structures even in agricultural areas. Technological, political, social and economic changes have an impact on the urban system - on its functions and on the spatial context.

2.1.1 The Emergence of Urban Networks

(276) For urban and spatial development, these changes present a great challenge. The urban system and the settlement structure of the EU are not likely to change fundamentally in the medium term. Global cities such as London and Paris and metropolitan regions such as the Ruhr and Randstad will continue to maintain their pre-eminent positions. New functions and networks may, however, in future have a major impact on the development of individual cities and regions. Cities are increasingly co-operating and pooling their resources, for example by developing complementary functions or sharing facilities and services. Such co-opera-