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Territorial Impact of Globalization for Europe and its Regions

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Introduction

In the strategic policy documents of the EU, globalization is identified as one of the four main challenges facing European regions in the future.

Generally, globalization is seen as a very positive phenomenon for Europe: “Europe will continue to benefit from being one of the most open economies in the world but competition from developed and emerging economies is intensifying”. (EC, 2010a). And the way Europe will benefit from globalization is clearly associated with its openness: “Global growth will open up new opportunities for Europe's exporters and competitive access to vital imports. All instruments of external economic policy need to be deployed to foster European growth through our participation in open and fair markets world wide… A part of the growth that Europe needs to generate over the next decade will need to come from the emerging economies as their middle classes develop and import goods and services in which the European Union has a comparative advantage. As the biggest trading bloc in the world, the EU prospers by being open to the world and paying close attention to what other developed or emerging economies are doing to anticipate or adapt to future trends.” (EC, 2010a). Though the EU 2020 admits that globalization “puts pressure on some sectors of our economy to remain competitive”, the potential impact on social and territorial cohesion is explicitly mentioned neither in the EU 2020 strategy nor in the policy documents focussing on territorial development such as the Territorial Agenda 2020.

This is the primary aim of this report to inform about the spatially unequal participation of European territories in the global economy – in their form and intensity – as well as the uneven abilities of European territories to resist global competitive pressure or to grasp opportunities of external and emerging markets. The diagnosis resulting from these analyses should inform policy makers about the place of Europe and European territories in the global economy at three different levels of interrogation:

i. How should Europe position itself in the global economy?

In the Policy documents, it is stated that “The success of the EU 2020 strategy will depend not only on the integration between Europe’s regions but also on their integration with neighbours, and even with worldwide relationships”. In this context, the project will inform on the intensity and the nature of the relations between Europe and the rest of the world.

ii. Which territorial policies can help to improve the position of Europe in the world, while at the same time improving territorial cohesion?

By addressing the complex link between competitiveness and openness and connectivity of European territories at different scales, this report will discuss whether the accent put on Metropolitan areas because they “play an important role in sustaining the EU’s global competitiveness” (EC, 2011b) can be reconciled with the objective of territorial cohesion and “contribute to reducing the strong territorial polarisation of economic performance, avoiding large regional disparities in the European territory by addressing bottlenecks to growth in line with Europe 2020 Strategy” (EC, 2011b).

iii. How can European territories improve their performance in the global economy?

By informing about the unequal ability of European territories in the global economy, we go a step further to reflect regional policies at local/regional level that takes into account the position of territories in the global economy.

The report is structured the following way: the first chapter describes the key drivers of globalization and particularly highlights the territorial impacts of globalization; the second chapter addresses the position of Europe, European regions and cities in the global economy at different scales by taking into account global flows of very different nature (human, economic, transport etc.); the third chapter informs about the main policy questions mentioned above.

Chapter 1. Key drivers of globalization

The concept of globalization has been discussed and debated in the economic geography and social sciences literature from different viewpoints and perspectives for over a decade (Veltz, 1996; Chase-Dunn, 1999; Sklair, 1999; Cochrane & Pain, 2000; Beaverstock et al., 2000; Sassen, 2001). In the framework of this project, we first need a pragmatic rather than a theoretical definition of globalization however assessment of the territorial impacts of the globalization process requires additional theoretical consideration in order to inform empirical analyses and concomitant policy options. In this project, globalization is first defined as the unprecedented growth of flows and, as a consequence, increasing integration between different parts of the world. For Europe, this means that exchanges with the rest of the world are intensifying and that interdependencies between European territories and the rest of the world are becoming stronger than ever before.

The main theoretical conceptions of globalization have generally focused either on economic aspects or on cultural features (Sklair, 1999). In this project, we will mainly focus on the economic perspective. This choice is not related to the relative importance of these subjects but rather to the project objective of assessing European territories in relation to global flows which impact on policy priorities for economic competitiveness and for social and territorial cohesion. Nevertheless, the perspective adopted does not mean that we focus purely on narrowly defined economic flows (trade, FDI, etc); rather we examine a range of flows, for example demographic and knowledge flows, which strongly affect economic performance.

In this first chapter, we identify and describe the major drivers of globalization. These trends are global but, by definition, they affect all territories, not least the European territories. Moreover, we highlight how major trends are reshaping economic geographies at a global scale. Finally, we propose theoretical “readings” of globalization as an essential step toward the development of relevant policy analyses.

1.1. Key drivers of globalization 1: Major trends in the global economy

Globalization as an unprecedented intensity of economic flows (trade, services and FDI)

The increase in cross border flows between economies of the world is not a new or recent phenomenon. As early as the sixteenth century, European powers built a world system of economic exchange, supplying their own needs, which resulted in growing trade across seas (Wallerstein, 1974). At the end of the nineteenth century, many specialists identified a first wave of globalization associated with a sudden acceleration of exchange and the shrinking of time and space (Chase-Dunn, 1999; Harvey, 1982), however it was not until the end of the 1990s that an intensity of trade (as a ratio of world GDP) equivalent to that in 1913 was achieved (Chase-Dunn, 1999; Krugman, 1997). In contrast, since 1990, the growth of trade and FDI across the world has reached unprecedented levels, higher than ever before until the 2008-2009 world financial crisis and recession (figure 1).

Hence while globalization can first be read as a growing intensity of flows between economies of the world, we may argue that this was a feature of internationalization as opposed to globalization (Sklair, 1999). Internationalization can be defined as the growth of economic exchanges between separate national economies, while globalization

assumes the growing integration of these economies, for example, integrated production processes that cross borders. This is why the present research focuses on the practices and organisational structures of economic actors, ie firms, operating at a global level.

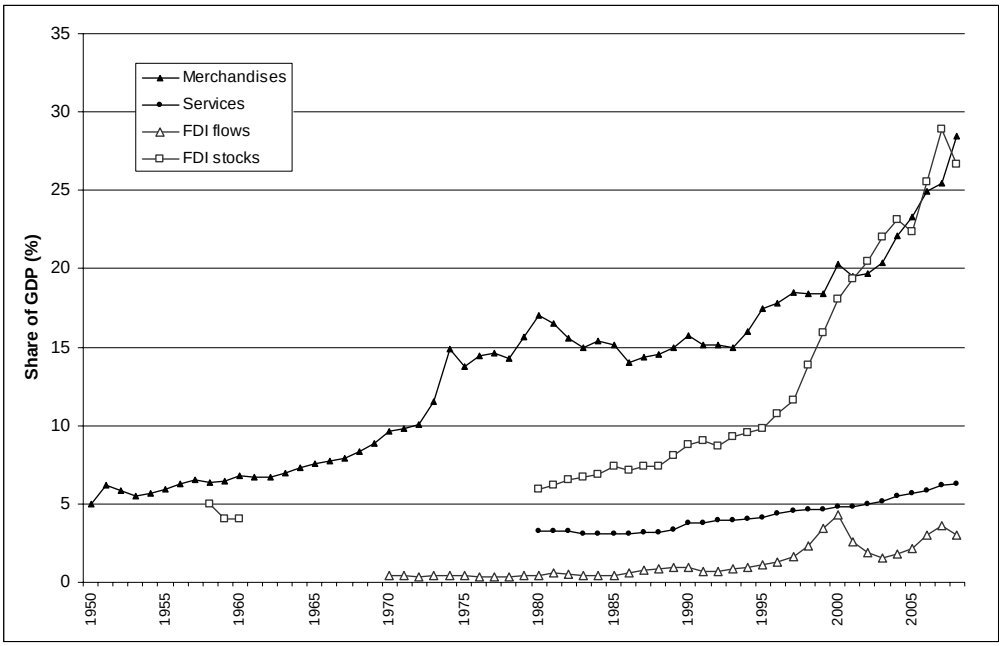


Figure 1. Share of trade and FDI in world GDP, 1950-2008

Source: UNCTAD completed by Chase-Dunn (1999)
Note: Ratio have been calculated using data on trade, FDI, and GDP of UNCTAD (2011). Data on FDI stocks in the sixties have been extracted from Chase-Dunn (1999).

Firms as drivers of trade and FDI

Transnational firms are not new actors in the international economy. In the first wave of globalization, transnational firms made huge investments across borders, including in the former colonies (Chase-Dunn, 1999). At this time, most investments aimed at penetrating new markets or acquiring raw materials in the colonies. Since WWII, transnational firms have become major economic players and more international in their strategies, initiating processes of chain production across the globe. This process accelerated after 1990 resulting in increasing FDI as a share of world GDP (figure 1). It also resulted in a large increase in intra-sector trade at a higher rate than inter-sector trade (CEPII, 2006). This meant that a growing part of world trade was made within the same *filière* or value chain. Transnational companies have been the main driving force in this process, with intra-firm trade accounting for about one third of total world trade. This trend illustrates the global strategy of business actors, with an increasing geographical segmentation of value chains from components to final products.

As illustrated by commodity chain analysis (Gereffi & Korzeniewicz, 1994), multi-national corporations are continental or global players, locating different phases of production processes in different places. In consequence, firms shape territorial relations through their location choices; offshoring strategies have important impacts on the development process at a regional level. However, location choices are deeply shaped by pre-existing structural differences between territories, and thus tend to reproduce these differences (Coe *et al*., 2004, 2008). This dialectical dynamics defined the second wave globalization of firms and their production territories. It resulted in the contrast between the global strategies of such firms and the spatially bordered actions of states and other levels of governance identified by Castells (1996), and hence the competition between public actors to attract globally mobile capital (Brenner, 2002; Swyngedouw, 2002).

Financial globalization

The growing integration and interdependencies of economies generated by transnational firm strategies is not the only characteristic of so-called second wave globalization, a growing intensity of financial flows across the globe is another key feature of the current era of globalization. The liberalization of financial flows after the end of the Bretton Woods monetary system initiated a huge increase in cross border flows of financial capital. According to the WTO, daily financial flows in 2008 reached around 3000 billions of $ when annual exchanges of goods and services were about 14000 billions of $**.** But financial globalization also concerns the emergence of global actors in the field of finance: traditional actors such as banks and insurance companies have become more global in their strategies, and new global financial actors emerged, such as hedge funds. Moreover, financial globalization has seen the emergence of new products alongside traditional financial instruments, stocks and bonds, such as derivatives, that notably allow the sale of credits to third parties.

The growing mobility of financial investments has huge consequences for economies facing high volatility flows, and this has resulted in widespread economic instability across the globe in the wake of the recent financial crisis. Until 2007, such volatility resulted in numerous crises in developing countries (Mexico 1994, Eastern Asia 1997, Brazil 1999, Russia 1999, and Argentina 2001-2002 to mention only the most significant examples) (Vandermotten *et al.*, 2010). Hence, economic instability has been a structural feature of emerging economies. Since 2007, instability spread across the core of the financial system, namely Europe and the US. Here again, we observe a difference in the scale of political actions and those of global financial capital.

Human flows

The intensity of human flows across the globe is not a main feature of the second era of globalization. In previous historical periods, massive migrations have taken place, from the African continent toward Americas, or from Europe to the Americas and other parts of the world. After the Second World War, human flows increasingly tended to be directed toward the most developed areas of the world, Japan excepted (WP13).

In 2005, there are around 200 million migrants (born outside their resident countries) across the world, equivalent to 3% of the world population. Around 60% of these people live in developed countries - 34% in Europe (intra flows included), 23% in Northern America and 28% in Asia (United Nations report on migrations, 2006). Gulf countries have also become an attractive pole, albeit playing a more minor role in quantitative terms. Hence, flows mainly go from developing to developed countries but this is not the whole story. Regional flows can also be of very high intensity, such as in some parts of Africa (from landlocked African to coastal African countries for example), within Southern and Eastern Asia or among the former Soviet Republics (United Nations report on migrations, 2006).

That being said, human mobility as a whole (not only migrations) has tremendously increased in recent decades, as illustrated by the intensive growth of air flows (WP13, WP17). On the other hand, its nature has evolved considerably. Certainly, the classic notion of migration has become insufficient to describe increasingly different forms of mobility: For example, different types of elites (such as scientists, advanced service producers, or artists) are moving around the world while often staying in the same type of social world; classic economic migration from the poor countries has become more and more diversified in terms of geographical origin, qualification, motivations, etc. (WP13). These new patterns of mobility can be described as shaped by connections between places (cities) rather than by borders between states. Mobility takes place within a series

of global networks such as transnational companies, informal economic networks (for example, the Jewish or Indian diamond industry), diaspora, scientific networks, etc. In particular, human mobility within Transnational Company (TNC) networks is considered decisive for global companies to survive (Beaverstock, 2004).

Transport and communication technologies

On the one hand, the development of transport and the shrinking of the distance has been a permanent development feature since the industrial revolution. It is of course an important condition in allowing the globalization of trade even though diminishing transportation costs have not accelerated in recent decades.

On the other hand, new communication technologies have been considered central in the current era of globalization (Castells, 1996; Veltz, 1996). For many authors, their development has contributed to financial globalization and the emergence of more horizontal corporate management structures supporting more transnational and cooperative business networks. Some authors go further in proposing a "great unbundling", where production processes are reduced to tasks that can easily relocated anywhere in the world using new communication technologies (Baldwin, 2006). However, this vision is not shared among all scientific commentators. Following Sassen (1996, 2001), globalization continues to lead to the concentration of certain strategic and commanding functions in so-called global cities as opposed to more horizontal and networked organizational structures (see below).

Knowledge flows

The current era of globalization which started around four decades ago, manifested itself at almost the same time in a number of knowledge-intensive urban regions (WP11). It has reflected an increased capacity and speed of virtual information processing and transmission and has also been associated with rapid transportation expansion such as motorway networks and air connections. In the current era of globalization, the diffusion of knowledge has thus been facilitated by the decreasing costs for transportation of goods, people, and information, deregulation, liberalization, and lowered barriers for international trade and foreign direct investments.

Contemporary globalization is characterized by knowledge-intensification and rapid transfer manifested through an increase of knowledge-handlers in the labour force and increased R&D investments in developed countries and subsequently in newly industrialized countries. Thus, the generation of knowledge has come to be widely dispersed, now occurring in regions all over the world. Any country or region wanting to preserve or increase its global economic competitiveness must have enough efficient knowledge channels to be able to tap the latest relevant knowledge wherever it is generated. This new knowledge is used as an input in product development as well as knowledge generation in the region.

Political drivers

In most studies, globalization is defined as a market and/or technology-driven process: the decrease of transportation costs, new communication technologies, the emergence of global financial actors and transnational firms with global strategies explain the rapid growth of trade of goods and services, FDI and other types of flows. The role of policy and territorial "assemblages" is barely mentioned as a driver of globalization through trade liberalization and financial deregulation (Sassen, 2007). Though, globalization has been largely initiated and boosted by political decisions in line with the (neo)-liberal

ideology which dominates international organization such as the WTO[1] : “The system’s overriding purpose is to help trade flow as freely as possible — so long as there are no undesirable side-effects — because this is important for economic development and well-being”. We can identify several political decisions that have been decisive here. First, there has been the creation of regional agreements, most of them being first and mainly based on free trade principles. Second, there has been a continuous liberalization of trade at multilateral level, mostly within the WTO. Third, major powers, mainly the US and the EU, have signed numerous bilateral free trade agreements. Fourth and finally, there has been a tremendous deregulation of financial investments (Harvey, 2005).
Historically, these decisions can be considered a response to the economic crisis of the seventies and the decrease of profit rates that characterized developed economies at that time (Harvey, 2005; Vandermotten *et al.*, 2010). The liberalization process has facilitated the search for better capital investment opportunities across the globe and the intensification of offshoring processes. The result has been new power relations between less mobile labour force and very mobile capital. In turn, the global strategies of firms and the intense mobility of capital have significantly reduced the capacity of states to regulate national economies in accordance with country objectives. This has resulted in an intensive competition between territories to attract global mobile capital; in this context, public policies at national, regional or city scales have shifted toward a governance paradigm aiming at providing the best climate for business and inward investment in their territories (Jessop, 1997; Swyngedouw, 2000).

1.2. Key drivers of globalization 2: Spatial permanencies and shifts in the global economy

As discussed, contemporary globalization goes hand in hand with major global economic geography shifts and emergent imbalances both at global and regional scales. Multi-scale geographical tendencies are thus both causes and consequences of globalization drivers. We now turn to consider the geographical consequences of these major trends at different scales.

First, there is a global economic shift from the “old core countries” of Europe, Northern America and Japan toward Eastern Asia, especially China (Table 1) (Dicken, 2003). The share of Western Europe and Northern America in world trade has dramatically dropped from the sixties to the present: while the former has continuously declined from 29 to 21% of interregional trade, the latter has seen its share decreased from 20 to 14% on the same period. As for Northern America, this decrease is much more pronounced as a share of exports than for imports, resulting in an increasingly negative trade balance. Japan and the so-called new industrialized countries of Asia have more complex evolutions: they nearly double their share of world trade to reach 17% in 1995, before dropping to about 12% in 2009. In Eastern Asia, China has been the most growing country from 2% of world trade in 1968 to nearly 14% of the world interregional trade. Interestingly enough, outside Eastern Asia, the so-called emerging countries have seen their shares in the interregional trade stagnating rather than increasing. The share of Latin America has slightly grown during the last two decades, while the share of Brazil alone has remained around 1% of the total world trade (intraregional trade included) between 1990 and 2009. Southern Asia has been more dynamic and nearly doubles its share of interregional trade to reach 3.2% in 2009. But here again, if we consider only India in total world trade, its weight has remained quite low, around 1.2% in 2009. As for Russia, its weight in trade has increased from 1.5 to 2.5% between 1994 and 2009, in parallel with the evolution of gas and oil prices. Hence, we can hardly speak about BRIC

[1] http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm

countries outside China because the three other large emerging countries still play a modest role in the global flows of goods, services or FDI.

	1968	1978	1988	1995	2005	2009
Western Europe	29,4	26,2	24,2	23,5	22,4	21,2
Central and Eastern Europe (former USSR included)	5,3	5,2	4,1	4,8	7,0	7,7
Western Balkans and Turkey	1,7	1,5	1,8	1,5	2,0	2,1
Northern Africa and South East Mediterranea	3,6	4,3	2,9	2,6	2,6	2,8
Middle East	3,5	9,3	4,8	3,6	4,9	5,5
Subsaharan Africa	5,8	4,9	3,0	2,1	2,4	2,7
Northern America and Mexico	19,8	17,0	19,4	18,1	15,6	13,8
Latin America	7,2	6,4	4,6	4,4	4,3	4,9
China	1,9	2,1	4,1	6,3	11,3	13,7
Southern Asia	2,3	1,5	1,7	1,7	2,6	3,2
Japan, Korea, Taïwan	9,0	11,7	16,9	17,1	13,2	12,1
Rest of Asia	3,9	4,3	5,2	8,1	6,7	6,9
Australia, New Zealand	3,1	2,2	2,5	2,3	2,0	2,2
Rest of the world	3,6	3,6	4,8	3,9	3,0	1,2
Total	100	100	100	100	100	100

Table 1 Share of the different macro-regions in the interregional world trade, 1968-2009

Source: Chelem, 2011
Note: intra-regional trade is excluded

Second, since at least the beginning of the nineties, world trade has been characterized by growing imbalances, especially between Eastern Asia and the USA (figure 2). The USA increasingly absorbs surplus from Eastern Asia, especially from China. Moreover, the US trade deficit is financed by the rest of the world, especially East Asian countries, but is also the consequence of aggressive trade policies in Eastern Asia which also results in their low capacity to absorb their own production. For many authors, this imbalance is among causes of the recent global crisis (CEPII, 2009).

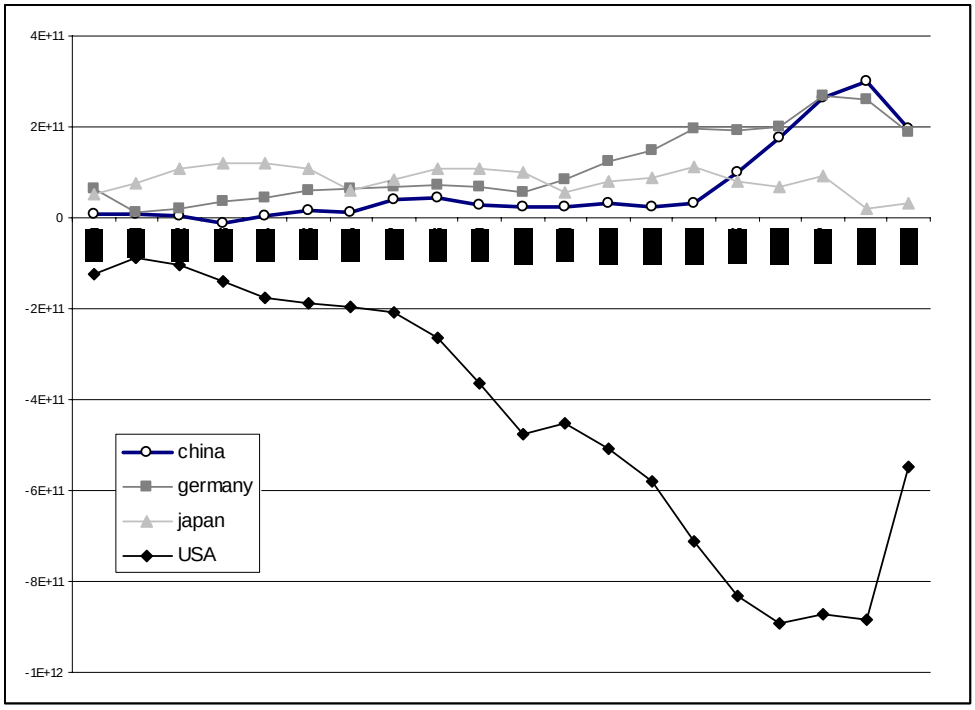


Figure 2. Trade balance of China, Japan, Germany and USA

Source: WTO, 2011

Third, many authors insist also on the existence of intermediate levels of organization between the local/national and the global scale, be it from an economic or political point of view (WP 19). As might be expected the European Union appears as the most advanced territorial assemblage in this process of *regionalization*, notably because its economic integration has been accompanied by a process of political integration. Many other areas, some of which have taken the EU as a model, have engaged in a process of regional integration. However, we must note that the process of regional economic integration is still rather weak outside the major economic poles in the world, mainly NAFTA and the EU, while it is progressing in eastern Asia through ASEAN as well as Southern America through MERCOSUR.

In this context, there has been an intense theoretical debate about whether the regionalization process has accompanied or has been antinomic to globalization. In the latter hypothesis, the regionalization process increases internal integration but slows down global integration, notably through protectionism. In the first hypothesis, on the contrary, it is argued that the regionalization favours global trade. In the ideological context of the nineties, European integration has thus been perceived by many economic authors as a potential threat, especially when the EU became a completely integrated market with free circulation of services and capital in 1993 (Krugman, 1991; Frankel *et al*., 1995). The basic fear was that internal economic integration would be accompanied by economic protectionism, acting as a restraint to economic multilateralism, that is a world free trade area which is considered by (neo)-liberal authors as the best environment for economic progress (Richard & Zanin, 2008). However, as soon as the end of the nineties those fears seem to decline and conceptions about the free trade area have completely changed. Indeed, several authors have demonstrated that internally integrated regions have not led to economically protected areas (Anselin & O'Loughlin, 1996; Poon, 1997). On the contrary, both internal and external trade were together developing at very high rates (Table 2). Hence, theoretical conceptions about regionalization have progressively changed, while the objective has remained the same: increasing liberalization and trade. For some authors, regionalization has thus been considered as a second rank optimum while for others it is a necessary transition to

complete liberalization at the global scale (Richard & Zanin, 2009; Bhagwati, 1992; Mashayeki, 2005 ; Newfarmer *and alii,* 2005). This latter view has certainly been adopted by the World Bank in their famous 2009 World Development Report on "Spatial disparities and Development Policy". If the final aim is economic integration at a world scale, notably for so-called "third world" countries, regional integration is now widely perceived as a good way to achieve this objective. This is because regional integration can reinforce economic development by promoting higher agglomeration economies and also because liberalization is better accepted politically in a limited regional framework. In brief, regionalization is now generally perceived as a positive process because it favours trade and globalization, and favouring trade is expected to boost territorial economic development.

Despite the huge increase in openness, big economic ensembles of the EU and NAFTA can still considered as relatively closed economies, with a ratio between trade and GDP of respectively 20.6 and 14.6%. Moreover, this openness can be considered as overestimated since trade is measured in total value rather than added value as measured through GDP though services are not included in these figures. This is the result of two different processes (Krugman, 1997): on the one hand, all economic sectors are increasingly open and integrated at global level, as explained by the emergence of global value chain; but on the other hand, developed economies increasingly rely on closed sectors, such as services for local or regional markets (services to people notably). As a consequence, large developed economies mainly rely on their own markets and producers, even in integrated global sectors such as the automotive industries (WP8c).

	Internal trade as a share of GDP (%)				External trade as a share of GDP (%)			
	1968	1986	1996	2007	1968	1986	1996	2007
ASEAN	7,7	10,3	22,3	33,5	24,4	44,6	65,9	85,8
CIS	0,0	0,0	13,0	11,4	2,0	8,0	29,2	40,8
EU	11,9	27,3	30,5	42,4	8,8	14,6	14,1	20,6
GCC	2,9	5,9	5,7	6,0	64,7	50,6	64,4	76,2
MERCOSUR	1,0	1,4	3,1	4,2	11,7	13,5	12,4	22,6
NAFTA	2,8	5,5	10,0	11,7	4,2	9,2	11,7	14,6
Average of all free trade areas	4,4	10,0	14,1	19,7	7,7	15,3	18,8	28,4

Table 2 Intra-block trade and openness rate of trade blocks, 1968 to 2007

Source: Personal calculations on CHELEM-CEPII database

Fourth, we still observe an intense division of labour at the world level, between core and peripheral countries. Figure 3 illustrates the position of some countries in the international division of labour. On the left side, countries are mainly specialized in food and raw materials. This still includes most of African countries as well as all countries mainly specializing in oil production. At the bottom, we find countries predominantly specialized in labour intensive products, mainly textiles but also assembling electronic products. This is the position of China nowadays as for Korea in the eighties. At the top right end of the graph, we find countries specialized in medium and high technological manufacturing goods, such as machine tools, scientific instruments, chemical products or automotive industry. It concerns the most developed economies such as the US, West European countries, Japan and South Korea. Hence, while the share of the core countries in high technological products has declined, they remain highly specialized in these types of exports while having lost their specialization for most of labour intensive exports, notably textiles. Trade balances in medium and high technological products remain very positive for Europe and Japan, while less so in the USA (Grasland, Van Hamme, 2010). Hence, though there is a quantitative shift in world trade towards Eastern Asia for nearly all types of products to different degrees, "old core countries" remain highly specialized in the most technologically advanced segments of production.

At the same time, as shown in Figure 3, there have been important changes in the international division of labour. On the one hand, many peripheral countries do sell manufacturing rather than primary products. This results in a "three-stage" division of labour: high technological production in the core; labour intensive manufacturing in the so-called "workshop countries", mainly, but not only, in Eastern Asia; primary product sellers (Van Hamme, Pion, 2012). As a result, we observe two types of changing position for "semi-peripheral" or "peripheral" countries with respectively intermediate or weak position in the international division of labour: a large group of countries have shifted from raw and food products to labour intensive ones (Bangladesh, Tunisia, and many countries in Pacific Asia); another much more limited group has made a second shift toward a high position in the international division of labour (Korea, Taiwan and Malaysia for example).

Not only technological know-how still characterizes core countries, commanding functions are also predominantly located there: Western Europe was the location for 40% of the 500 of the headquarters of biggest world firms, Northern America 33% and Japan 15% in 2009 (Forbes, 2009; Vandermotten *et al.*, 2010). The same is true of the more global firms in finance as well as major stock exchanges.

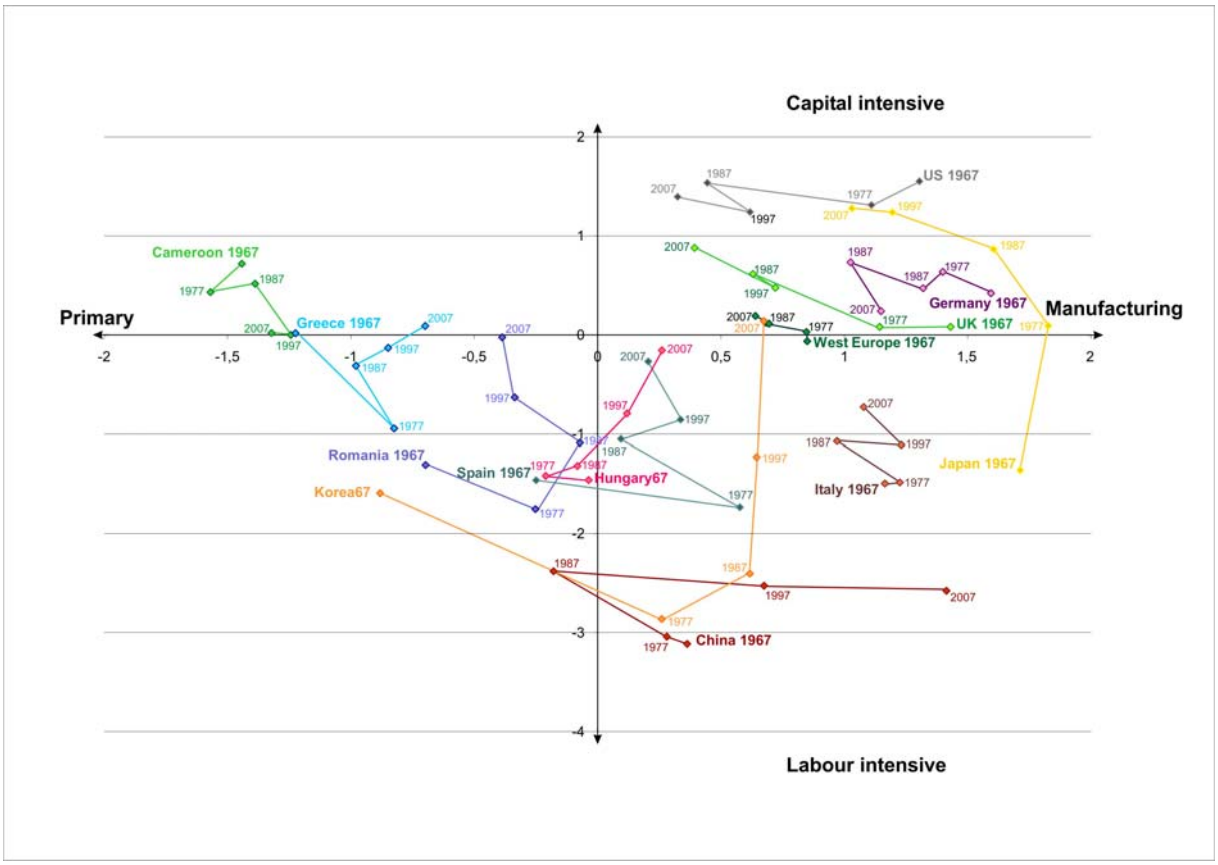


Figure 3. Permanencies and changes in the international division of labour, 1967-2007

Source: Chelem, 2011; EuroBroadMap, 2011; Van Hamme, Pion (2012)

Fifth and finally, naïve, early readings of globalization announced the "death of geography", notably focussing on the potential locational impacts of new communication technologies**.** Our analyses, following many others, demonstrate the inaccuracy of this reading of globalization. We highlight here how distance and agglomeration economies have become even more central through the analysis of financial, trade, human and knowledge flows.

The growing importance of transnational financial flows through global stock exchanges and property markets for cities has been recognised in the literature since the nineteen seventies (see WPs 3, 9 and 10). A group of the world's most powerful international financial centres has long been theorized as embedding capital flows in the "global cities" literature (Sassen, 1991; Budd, 1999). The agglomeration economies associated with the location of stock exchanges and the clustering of international business services in such centres (Porter 1998, Taylor *et al.* 2003) have become increasingly dependent on the availability of physical infrastructures provided by global investment. Recent financialization of the world economy, as well as the European Union, associated with ICT advances, economic integration and the deregulation of financial markets, has led to an acceleration of financial flows through global "circuits" (Sassen, 2006) and city capital markets (Lizieri 2009). Within Europe, the MiFID Directive (Markets in Financial Instruments Directive) and on-going regional consolidation of the stock-exchange industry facilitate these transnational financial flows. In consequence, few authors now assert that global financial integration might annihilate any geographic relevance of space and places, forming a fluid, smooth and uniform world.

As already underlined, trade at global level is highly organized into regional trade structures, though these intermediate levels of organization have not reduced more distant and global trade (Poon, 1997; Frankel, 1998; World Bank, 2009) (WP 19). The same is true for human flows: despite the the increase of global mobility, distance and historical links still largely structure human flows today (WP 13 and 14). Finally, there has been massive increase of knowledge flows in the current era of globalization (WP 12). However, there are no guarantees that more rapid diffusion will benefit all nations and regions to the same degree, since the value of the knowledge for the receiver is dependent upon his/her absorptive capacity (Mahroum *et al.*, 2008). Furthermore, since there are increasing returns in knowledge production, there are strong forces stimulating continued spatial agglomeration of knowledge production. The spatial extent of knowledge spillovers and knowledge flows more generally is a critical factor for territorial development in Europe.

1.3. Back to theory: permanencies and breaks in the global economy

To conclude this first chapter, we suggest two primary theoretical readings of globalization that both give space a critical dimension. The first approach analyses globalization as a qualitative break in history, in which old borders and nation-states are replaced by a world of networked spaces (Sassen, 1991; Castells, 1996, Beaverstock *et al.*, 2000). We refer to this as the *network paradigm*. The second approach – the *world system* theory – perceives the current globalization era as an intensification of structural trends in capitalism resulting in the ever increasing spatial extension and deepening of markets (Amin, 1970; Wallerstein, 1974; Arrighi, 1994; Harvey, 1982).

The *world systems* approach basically divides the world, at different scales, between core – rich and powerful – and peripheries – poor and dependent. From the perspective of flows, this theory propounds the domination of the centre in the main flows across the world, in quantitative as well as in qualitative terms. This theoretical perspective has informed the consideration of issues of uneven economic development at different spatial scales in the academic literature and has been an important input to policy making with reference to the globalization process. The concept of a semi-periphery, introduced by Wallerstein (1974), allows for a more dynamic process in the *world system* theoretical field. Indeed, the analyses outlined above both point to permanencies and changes within the *world system*. To ignore these tendencies could sometimes lead to very generalized policy priorities, such as the necessity for all regions to raise their position similarly in the value chain when, in practice, regions have different inherited positions in the international division of labour. The *world system theory* can inform more nuanced

policy approaches to deal with such distinctions. Indeed, this theory is not only an historical deterministic approach but can also be seen as an optimistic view which reflects the diversity of peripheral areas and leaves the question of the ability of peripheral territories to face the challenge of globalization open. Success stories relating to the transformation of once peripheral areas, exist both at the European (for example Northern Finland) and at the world level (for example the Asian "tigers").

The *global cities and network* approach can be regarded as distinctive because it postulates that cities are the main driving force of globalization, albeit Taylor's "world city network" analysis derives from Wallerstein's world systems analysis (Taylor, 2004; Brown *et al*, 2010). The point of interest here is that the network paradigm allows us to observe world development through a new lens, replacing the old paradigm of territories and nation-states, with the new network paradigm of spaces of flows. From this point of view, Sassen's "global city" conception is especially useful since it proposes a multiscalar perspective: "The massive trends toward spatial dispersion of economic activities at the metropolitan, national and global level, which we associate with globalization, have contributed to a demand for new forms of territorial centralization of top-level management and control operations" (Sassen, 1996). According to this view, (global) cities are not only nodes within a network but they are part of a global process of complementary decentralization and centralization of economic activity at different spatial scales. Such a conception helps us to understand spatial processes of globalization beyond the major nodes, that is to say, beyond global cities.

As suggested by Taylor (2000), going back to Braudel (1979, 1985) is essential to understand current trends in capitalism. But, even more useful, Braudel allows a reconciliation of both theoretical approaches we refer to here to understand current trends in capitalism and their impacts on territories. In Braudel's perspective, capitalism is this area of the economy (the top-layer of the economy) where the market doesn't work anymore. Arrighi (1994, p8) in its interpretation of Braudel explains: "this top-layer is where "large scale profits" are made. Here the profits are large not just because the capitalist stratum monopolizes the most profitable lines of business; even more important is the fact that the capitalist stratum has the flexibility needed to switch its investments continually from the lines of business that face diminishing returns to the lines that do not". In this area of monopolies rather than markets, transnational personal networks are decisive to obtain information and to control commercial circuits which allow high level profits.

One of the decisive aspects in this question of bordering/debordering is the complex dialectical relation between capitalism (or capitalists) and State: on the one hand, capitalists need to go beyond the state building their networks all around the world economy, to be able to play with economic differential but, on the other hand, they need to rely on the power of the state, on its regulatory power to build up and maintain monopolies, within as well as beyond national markets (Wallerstein, 1980). Hence, from the very beginning, capitalism is about bordering – the necessity to control, to regulate, to create markets within the territorial limits of the state – and debordering, because precisely in Braudel's terms, capitalism is this area of the economy that goes beyond state limits to exploit the most profitable lines of business (Sassen, 2007). Hence, states need to be powerful inside their borders, to support the capitalist class outside their borders, but at the same time their power is restricted – notably territorially – so that capitalists can go beyond the limits of states. From the very beginning, capitalism is characterized by this tension between a transnational capital and a strengthening of state power: the limits of the economy are larger than the limits of states.

In this perspective, there is nothing new in the so-called globalization era: the limits (borders) of the state are the limits of its power and they enhance the power of the global economic actors. However, even if basic processes remain the same, their scale and the intensity have changed: first Braudel's European "economy-world" ("*economie-*

monde") has become really worldwide – this is a secular process that seems to be nearly achieved; second, the intensity of flows – and especially those referred to by Braudel as capitalist, which lie at the top-layer or the real home of capitalism – has been accelerating during the past two decades. Global firms are playing a central role in generating these changes through the integrated global networks of production they are building or on which they rely (Dicken, 2003; Coe *et al*., 2004). The increasing fluidity of global financial capital has also strongly reduced the power of states, resulting in increasing competition between states and territories to attract mobile capital flows (Brenner *et al*, 2002). This change in intensity and scale can be interpreted as a qualitative change resulting in the emergence of a global system where nation-states are becoming increasingly transcended by transnational social forces (Robinson, 2011).

Chapter 2. Europe and European territories in the global flows

In this chapter, we synthesize the huge material collected in this project to inform about the place of Europe and European territories in the global flows. We propose a multi-scale approach that focuses first on the position of Europe as a whole in the global flows and networks. In the second part, we show how European countries and regions participate in the global economy and how global trends potentially impact European regions. Finally, we turn to the functional scale of cities to inform about the way European cities participate in the global networks in the transport of goods and persons, in the real estate office flows, as well as in advanced producer and financial services.

2.1. Europe in the world

The European space in a comparative perspective: competitiveness, social and territorial cohesion

In this section, we consider the political objectives of the European Union with respect to its internal cohesion and in a comparative perspective. The comparison between the ESPON space and other developed areas of the world is made according to the EU's official goals, namely competitiveness, social and territorial cohesion, as well as environmental sustainability. This comparison focuses on ASEAN+ 3 and NAFTA (WP1) Does the European Union do better in these areas than other comparable large geographic ensembles?

Competitiveness: Espon as one of the most wealthy territory in the world

The evaluation of territorial competitiveness can be revealed by several factors. For instance, Gross Domestic Product can be used as an indication of competitiveness, particularly GDP per capita. When the GDP per capita is mapped at a comparable scale (figure 4), we can observe that the three regions are in quite different situations. In 2008, the map stresses the existence of gaps between the wealthy areas of ESPON and NAFTA and the much poorer ASEAN+ 3, except Japan. The richest spatial units of ASEAN+3 regions (Malaysia, South Korea, and Shanghai China's province) reach the level of Mexico, Eastern European (Estonia, Poland, Czech Republic, Slovakia and Hungary) or Southern European (Greece and Portugal) countries. Even the richest country of the ASEAN area - Japan - only reaches the level of Florida in 2008 and is at the same level as France, Germany and the UK. As far as the GDP per capita is concerned, the EU and NAFTA situations are comparable, despite considerable internal disparities (see next section).

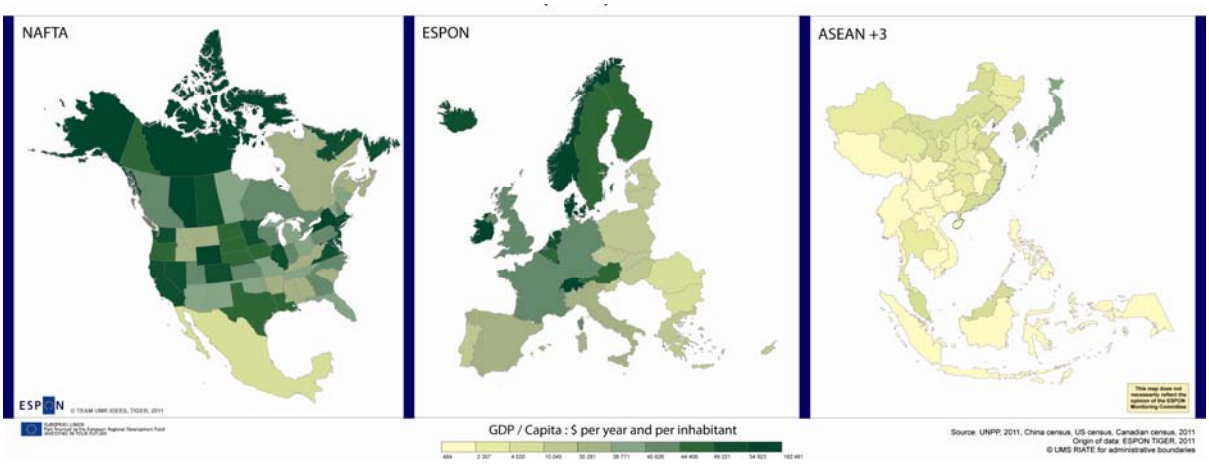


Figure 4. GDP per capita in 2008

Other indicators enlighten us on some possible future trends for competitiveness. According to the knowledge economy paradigm, the Internet users' level or the funding of R&D provide an overview of these trends. These indicators can qualify economic performances. The mapping of the Internet user's rate shows that the EU is in a medium position between NAFTA, where the rate is very high everywhere except in Mexico, and ASEAN+3, where the rate is low everywhere except in Korea, Japan, Malaysia and some coastal provinces of China. The EU lies somewhere in between these two regions but shows strong internal contrasts, notably between Northern and Southern/Eastern Europe. However, one should keep in mind that growth rates are also quite differentiated, and very high in Asia.

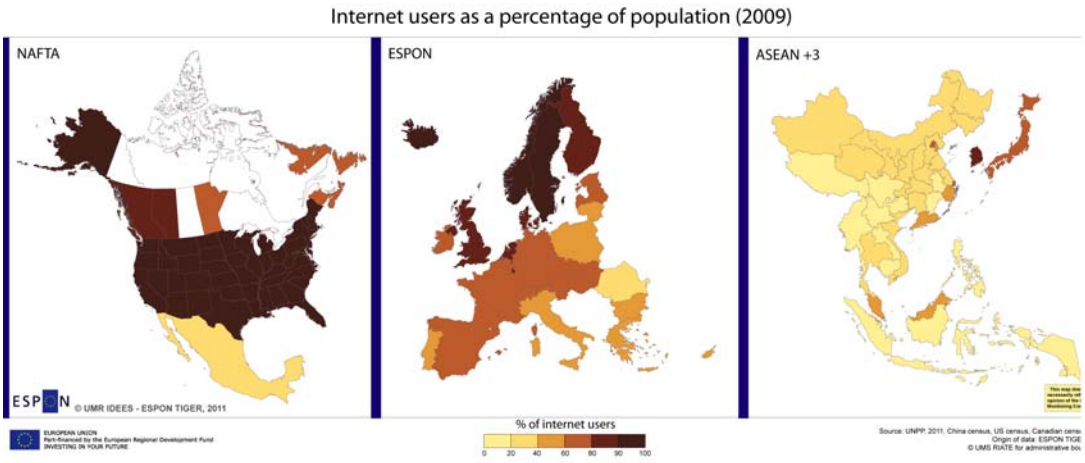


Figure 5. Internet users as a percentage of population (2009)

Territorial cohesion in the most developed parts of the world

As illustrated in Figure 4, great disparities are observed between the territories of the three regions in terms of national GDP per capita. In Figure 6, disparities are measured by the ratio between the richest and the poorest country/territory of the region at each date. The evolution of intra-regional disparities is given here with a base 100 as a reference in 1989. However, it should be noticed that the figures are quite different at the beginning of the period. In 1989, the Japanese population was nearly 570 times richer than the Cambodian one (and 240 times richer than Vietnam, the second poorest

country of the region), while Switzerland was “only” 16 times richer than Poland, and the USA 8 times richer than Mexico. Within the period, intra-regional disparities decreased dramatically in ASEAN+3 (Asian development Bank, 2009) as they were almost divided by 10. Japan's GDP per capita was “only” 70 times higher than Myanmar's. Meanwhile, the GDP per capita disparities between the countries of NAFTA were stable, with a low but irregular decrease. In the ESPON region, the situation at the beginning and the end of the period is quite similar: Luxembourg's GDP per capita is 17 times higher than that of Bulgaria in 2009. Nevertheless, between the two dates, the ESPON region undergoes a sudden and temporary increase in internal disparities, nearly multiplied by 10 between 1989 and 1991, following the temporary collapse of the formerly communist economies after the fall of the Soviet empire and the reorganization (and liberalization) of the national economies. Yet, although the ESPON region faced a challenge like no other region of the world during that period, the disparity values of the region in 2009 nearly reached those of 1989.

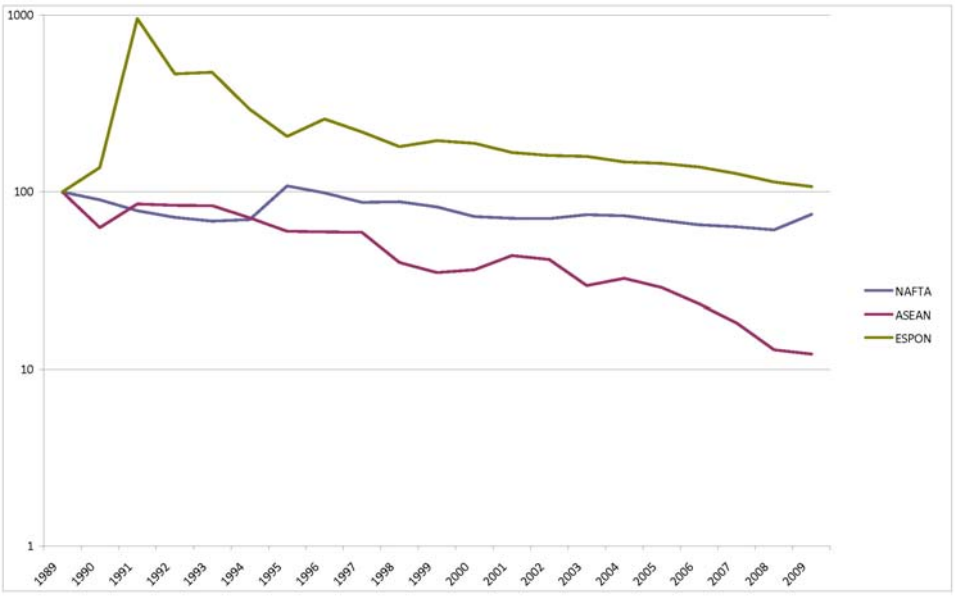


Figure 6. Evolution of intraregional disparities in GDP per capita (1990 as 100 base)

We also propose a more in-depth comparison of territorial inequalities within the ESPON and the US territories, taking a long term and multi-scalar perspective (WPs 5). The description of multi scalar inequalities in the long run does not lead to straightforward conclusions. Territorial inequalities show different dynamics according to the period, the scale and the space considered. First, for both the US and the European space, we observe a convergence until the 1970s, marking a clear break on both sides of the Atlantic Ocean. The fordist period – from the 1950s to the 1970s – has been one of catching up for backward regions at both international level in Europe and national level in the US and within the most developed European nation-states. Second, after the mid-seventies crisis, the picture became far more complex. In Europe, the process of convergence between poor and rich nations continued, resulting in diminishing gaps between European countries (figure 4). This catching up process has been very clear for Eastern Europe, Ireland and Spain after 1995. The converging process between European nations is visible at regional scale since nearly all regions of the above-mentioned countries benefit from these good performances, although at various stages. The situation is not similar in the US, where territorial inequalities at regional level (US State compared to NUTS1 level in Europe) are more limited. However, in contrast with Europe,

we observe a divergence trend in the US during the last two decades, with higher growth rates in the most prosperous agglomerations, a process generally known as *metropolitanization* (figure 7). This process is not visible for Europe as a whole because of diverging national performances, but is clear within European nations, where the biggest urban areas – in most cases the capital cities – have generally performed better than the others. This process is more intense in the nineties and seems to slow down or even disappear in the years 2000, except for Eastern and Nordic countries.

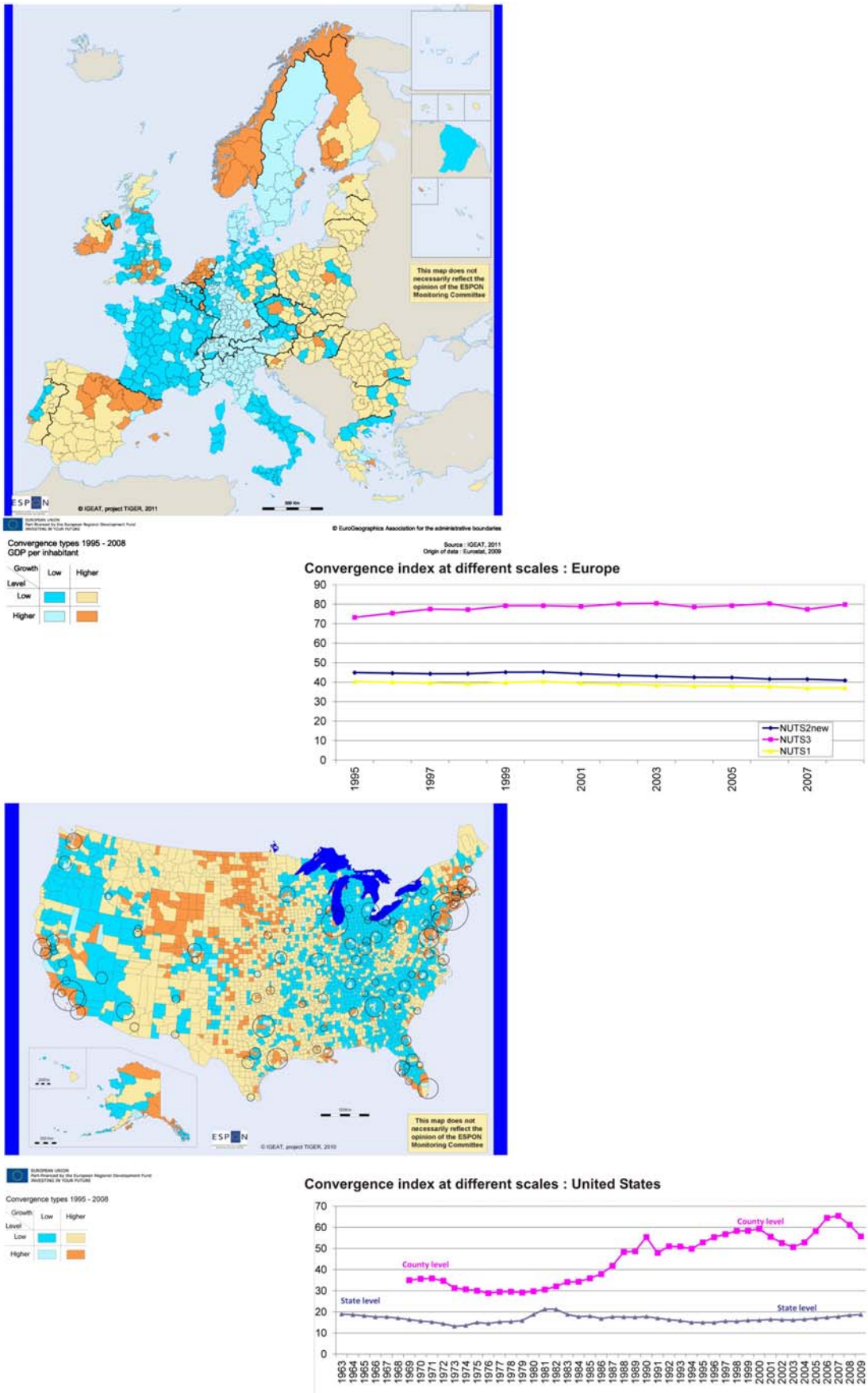


Figure 7. Territorial cohesion in the US and ESPON spaces

As for social cohesion, social inequalities appear to be lower in most European countries than in other developed regions and emerging economies (figure 8). In contrast to Japan, the US or China, social inequalities have been relatively stable in most European countries during the last two decades, with the exception of former communist countries, where inequalities have dramatically increased.

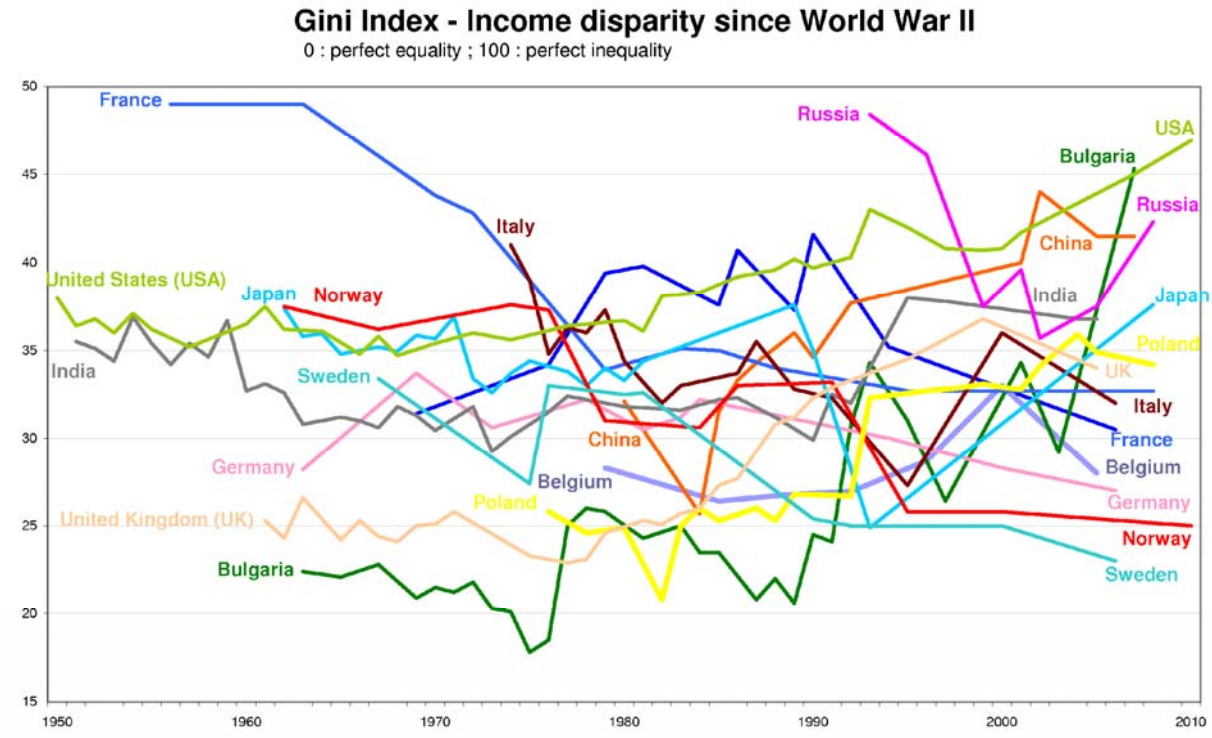


Figure 8. Social inequalities in developed countries, 1950-2010

Source: World Bank, OECD, CIA - The World Factbook, 2011

Life expectancy is an interesting indicator because it reflects both the social and health situation of people in the different countries and the efficiency of the health systems. Moreover, it is also not fully correlated with the level of richness of the territories: once a certain level of GDP per inhabitant has been reached, the health situation is no more correlated to the GDP per inhabitant.

As for the other indicators, the mapping of life expectancy at birth in 2000 in the three regions highlights marked differences: NAFTA and ESPON show quite similar values, except in some Eastern European countries (Estonia, Latvia, Slovenia, Romania and Bulgaria). However, the variation of values in NAFTA and ESPON regions shows a spatial structure quite different and more “organized” than for the variation of GDP per capita. In NAFTA, there is a global decrease of life expectancy from north-west to south-east, where social disparities are high. In the ESPON region, a decrease can be observed from south-west to north-east with the exception of Scandinavian countries. In ASEAN+3, the situation is quite different: the majority of the spatial units show relatively low values in terms of life expectancy. Apart from Japan, where life expectancy reaches the highest in the world, the highest values in these regions are similar to the lowest values in NAFTA and ESPON.

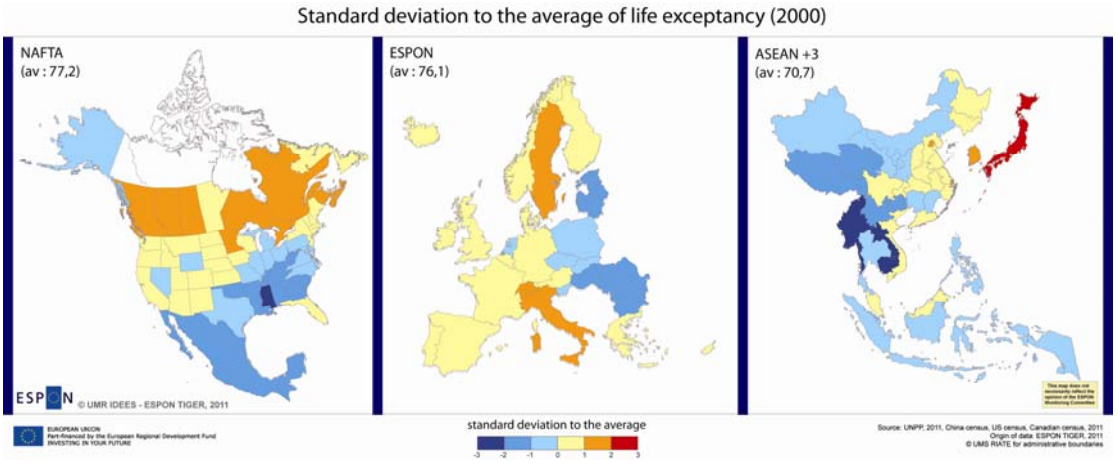


Figure 9. Life expectancy in 2000

Another interesting indicator reflecting the sanitary situation of a territory is infant mortality. It is an alternative indicator to measure the well-being (OECD, 2006), as well as the ability of health care systems to prevent diseases of mothers and children. The graph of the evolution of this indicator between 1980 and 2009 shows that the EU always has the lowest infant mortality rates. Moreover, the situation is still improving. Overall, those two indicators show that the EU performs relatively well in health, which is an element of social cohesion.

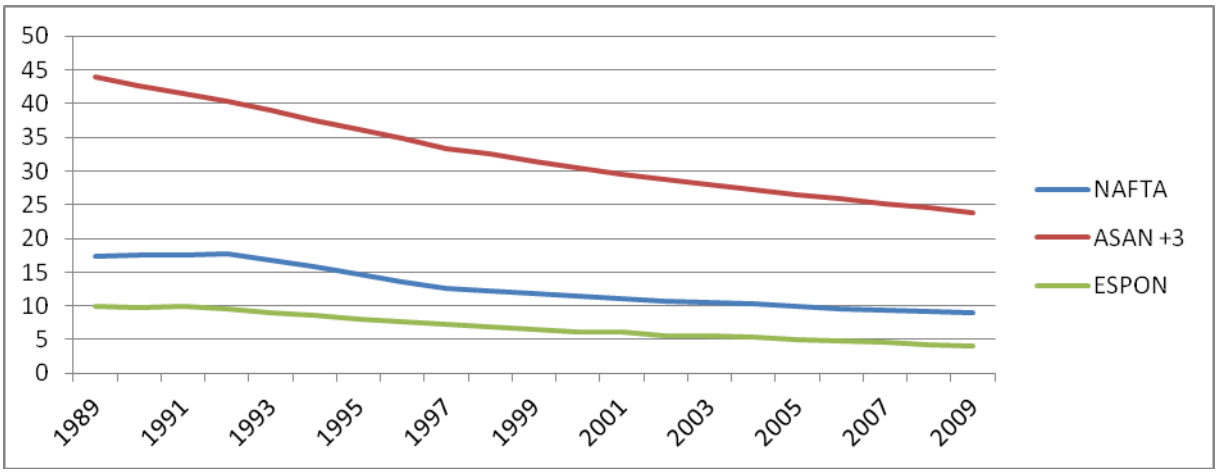


Figure 10. Evolution of infant mortality rate per 1000 living birth (1989-2009)

The environmental issue. Is EU more sustainable than others?

The environment is of major concern to the EU, which has been a strong regulatory power in this area. One indicator which could allow measuring the impact of each region's efforts in this matter is the ratio between CO^2 emissions and GDP. It could be understood as the quantity of CO^2 a territory needs to reject to produce 1$ of GDP. In the three regions, the GDP has increased over the period and CO^2 emissions have increased accordingly: in absolute terms, they have been multiplied by 2.3 in the ASEAN region, by 1.2 in the NAFTA region, and have decreased in the ESPON region (x 0.9). Consequently, CO^2 emissions by GDP evolution are quite different in the three regions (base 100 in

1989). ESPON and NAFTA need less and less to reject CO^2 to produce GDP, but the decrease has been more pronounced in the ESPON space, as a result of progress in energy efficiency. ASEAN emissions by GDP are quite irregular but are globally stable over the period. Those figures could be interpreted as a result of the great efforts made by the ESPON to reject less CO^2. However, one should not forget that the offshoring of manufacturing activities toward the developing ASEAN+3 countries or to the margins of ESPON or NAFTA regions also contributes to partly reject… CO^2 emissions outside these regions. Moreover, CO^2 emissions per capita in the ESPON territory (0.8 kT per capita in 2007) are much lower than in the NAFTA (1.6 kT) but still twice as much as in ASEAN+3 (0.44 kT).

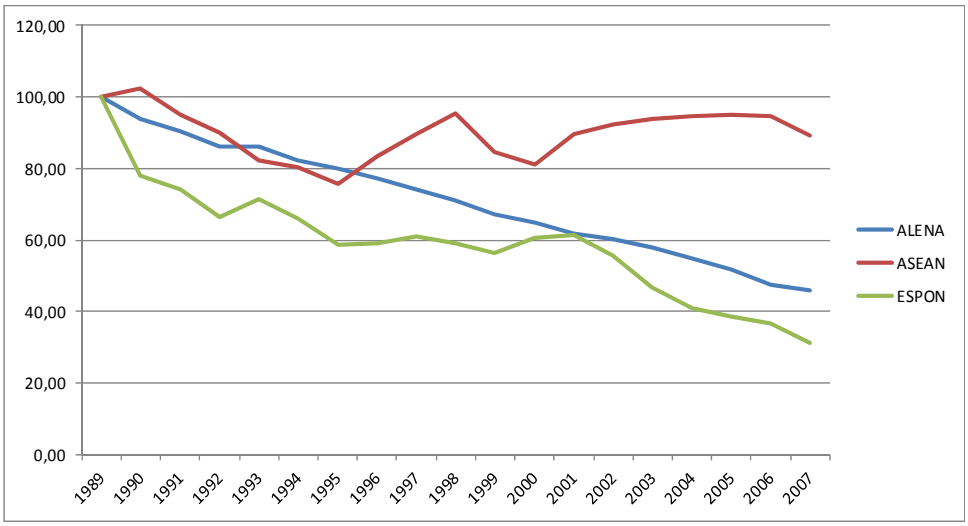


Figure 11. CO^2 emission by GDP (index 100 in 1989)

Europe as a global yet declining power

Many studies have highlighted the declining weight of Europe in the world population and economy. In 1950, the whole of the future EU-27 represents around 15% of the world population and 28% of the world GDP (Maddisson, 2011). In 2010, the figures for the same geographical ensemble amount to respectively 7% and 18%. This decline should continue in the next years. However, the EU as an institutional body does not decline at the same pace: since 1957 and the birth of the European Economic Community (EEC), the enlargement of the EU made it possible to maintain its weight around 6% of the world population and 20% of the world production (Grasland *et al.*, 2007). In this section, we will focus on Europe's position in the world flows, with respect to trade of goods and services, foreign direct investments, human and knowledge flows. As far as possible, we will assess this position on long term trends.

Europe as a central place: A nuanced view upon the European decline as an economic power

For the trade of goods, the current territory of the EU, together with Switzerland, Norway and Iceland which are members of the European Economic Area, accounted for 22% of the inter-block trade around 2007 vs. 28.3% in 1968 (WP 7). Over the same period, the internal trade in this area decreased from 28 to 24% of the total world trade. Despite this moderate decline, the EU is still by far the first trade power in the world, before NAFTA, which accounts for 15% of the interregional trade, Japan, Korea and Taiwan with 12%, and China with 11%. The EU as a major trade power is not an abstract

idea because the communitization of trade policies has gone very far and the EU speaks with one voice in trade negotiations, notably in the World Trade Organisation (WTO).

The decline of Europe is also highlighted by the geographical reshaping of its power in terms of trade (figure 12; WP 7). We can observe that Western Europe's influence, measured as its share in the trade of macro-regions over the world, has declined in all parts of the world at a dramatic pace, notably in almost all Asia and in Africa. Basically, the influence of Europe has shrunk toward the neighbourhood, with a shift toward Eastern Europe and the former USSR, after the fall of communism.

There is a huge debate on whether Europe and other developed countries win or lose in globalization, and particularly from offshoring processes toward emerging countries (DG RegioII, 2009; Krugman, 1997). The initial image of Europe losing labour-intensive industries has progressively evolved into the idea that Europe is also losing high technological production and knowledge-based industries (OECD, 2007; Grossman & Rossi-Hansberg, 2008; Baldwin, 2006). This might be true but should not be overstated. Undoubtedly Europe, the US and Japan decline in relative terms (in share of the world trade) in nearly all segments of production and trade; but this decline is much less pronounced in more technological segments of production, as a result of the fact that core areas of the global economy are more and more specialized in high added value goods (CEPII, 2006; Grasland, Van Hamme, 2010). Hence, the poles of the so-called Triad face deep trade deficits in labour-intensive manufacturing industries while they maintain positive balances in the most technological segments. It is worth noticing the contrast between the US and Europe/Japan: while the first has negative balances in all sectors – yet less in the most technological ones –, Europe and Japan remain positive in medium and high technological segments (automotive, machinery, chemical industries) (WP 7; Vandermotten *et al.*, 2010).

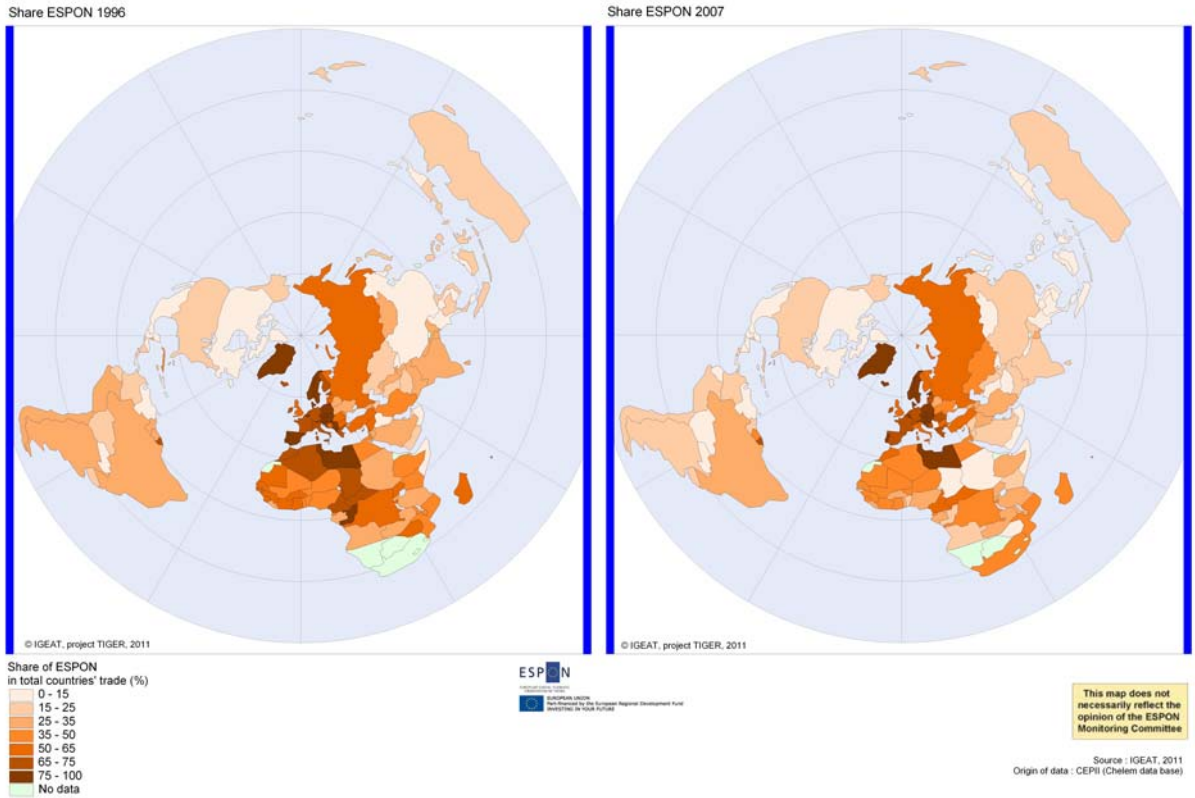


Figure 12. The weight of Europe (ESPON) in the trade of countries, 1996 - 2007

Source: IMF, 2011; Chelem-CEPII, 2011

The stable position of Europe in the world division of trade is confirmed by Figure 3 (chapter 1), which shows the position of some exemplar countries on the two major dimensions in the international division of labour: raw material and food products vs. manufacturing on the horizontal dimension; labour intensive vs. medium and high technological products on the vertical one (WP7 for methodological precisions; EurobroadMap, 2010). Figure 3 thus clearly opposes primary producers (Cameroon is shown as an example) to countries which are the most specialized in manufacturing production (Japan, China…). In the latter, the second component opposes the countries specialized (in relative terms) on more technological segments on the upper side (US, Japan…) to those specialized in labour intensive industries such as textile at the bottom (China…). On this picture, Western Europe shows a high and stable position in the international division of labour[2]. In most technological goods such as aeronautics, chemical products, machinery or automobiles, Europe keeps very positive balances, in contrast to the US which now has negative balances in most medium and high technological goods, while still highly specialized in the most advanced products (Grasland, Van Hamme, 2010; Vandermotten *et al.,* 2010).
For the trade of services, the EU and associates have declined in the long run: the share of Europe was around 60% of the world trade of services in 1980 and lies between 45 and 50% 30 years later. However, the EU remains by far the first power for the trade of services accounting for around 48% of all trade of services in 2009 (UNCTAD, 2010), and the EU alone for around 45%. However, when intra-EU trade is excluded, the EU represents around 26.5% of the trade of services in 2008-2009, a stable share until 2004, to be compared with the 22% of NAFTA (24% in 2004) and 5% for China (3.8% in 2004). Moreover, EU's competitiveness has remained very high, with a trade balance of services around 7% of all EU trade of services in 2008-2009, vs. 9% for NAFTA, while China and developed Asia keep negative balances in services. Hence, to a certain extent, the declining weight of EU in trade of goods is mitigated by stable performances in the trade of services.

Beyond trade, Europe is still a major economic actor because of the importance of European firms and the flows of capitals invested in/invested by European economic actors. In 2008, 55% of the world's stock of investments originated from Western Europe, which attracted 46% of such investments. In contrast to trade, no decline is observed in the long run: in 1973, the figures were respectively 40% and 37% of the world's stock investments (UNCTAD, 2010). If we consider flows of investments rather than stocks, in the 2006-2008 period, the EU (with Switzerland and Norway) accounts for 65% of all outwards flows vs. 55% of inwards flows, mostly intra-European however, due to the free movement of capital since 1987. Even if all intra-regional flows are excluded, the EU still accounts for 39% of outwards and 24% of inwards flows. In comparison, Northern America is the first pole of attraction with 30% of interregional inwards flows but 24% of outwards flows, far behind Europe. The Asian powers perform much worse: China represents 10% of inwards flows, vs. 1% of outwards flows; Japan, 8% of outwards flows.

The weight of European firms in the global economy is thus obvious: Western Europe concentrates 40% of the headquarters of the 500 biggest world firms, before Northern America and Japan, with respectively 33 and 15% in 2006 (Forbes, 2009; Vandermotten *et al*., 2010).

Finally, Europe is also a major global financial actor accounting for a quarter of world market capitalization (stock exchange, banks, etc.), vs. the US with 35%, and for 45% of the turnover in the banking sector, vs. the US with 20% in 2011 (Forbes, 2000).

[2] It does not make sense in this long term perspective to aggregate all ESPON countries, because former communist countries largely made part of an integrated and separate system.

Europe is a very attractive place

For centuries, Europe has been facing mass emigration, mainly to the Americas. The situation has changed since the 1960s, when Europe became attractive to immigrants from third world countries. At that time, human flows from Southern Europe have been replaced by others, mainly from Europe's neighbouring countries, such as Northern Africa or Turkey (Medina-Lockhart *et al*., 2004). In the nineties, the geographical pattern of migration has also considerably changed. First, the fall of communism gave rise to new migratory paths from Eastern to Western Europe, notably Germany. Second, traditional emigration countries in Southern Europe – Portugal, Spain, Italy and Greece – became countries of mass immigration. Third, the migrants' origin diversified, coming from all over the world, even if neighbourhood remained the first source of immigration (WP13).

In the context of globalized human flows, one of the major issues for Europe is to attract highly qualified labour (WP11 and 13). This specific migration plays a predominant role in many respects. Demographic trends might result in shortage of qualified labour, at least in some professions. Also, highly skilled labour is of utmost importance in knowledge transfer, notably within major transnational firms' networks. Let us briefly examine the situation in the poles of the Triad (the EU-27, the USA, Japan). The share of immigrants with tertiary education has increased in the US and Europe between 2000 and 2008 (Table 3), but remains in the US more than twice as high as in the EU-15. In Japan, the share is almost negligible in comparison to the other regions. On the labour market, the number of immigrants in high-skill jobs (11.5%) and professional occupations (13.3%) is lower than in the EU-15 employment as a whole (16.2% on average). This might reflect the fact that migration to Europe in particular is more often of lower skilled nature and that qualifications are not easily transferred.
Overall, Europe still lags behind the US in terms of high-skilled immigration, but performs better than Japan. However, the trend of high-skilled migration to Europe is positive since Europe has displayed stronger growth than the US in both absolute and per capita terms.

Triad Region	Immigrants with tertiary education (per 1000 inhabitants)		Immigrants with secondary education (per 1000 inhabitants)	
	2000	2008	2000	2008
EU-15	3,052,162[1] (9.9)	5,787,700[2] (16.3)	3,878,397[1] (12.6)	10,273,200[2] (28.9)
EU-27	NA	6,207,700[2] (12.7)	NA	11,403,000[2] (23.4)
USA	5,862,756 (20.8)	8,638,275 (28.4)	8,359,370 (29.6)	NA
Japan	278,277 (2.2)	NA	410,453 (3.2)	NA

Table 3 Well-educated immigrants toward the Triad, 2000 and 2008

[1]Immigrants from countries outside Europe
[2]Immigrants from countries outside the EU
Source: 2000 round population census from OECD (2010c); 2008 round population census from Eurostat (2010); US MPI (2010)

In their need for highly qualified labour force, European countries also rely on students from third countries (WP 14). According to the OECD, over the last three decades, the number of international students has significantly grown in absolute terms in the world. They were 0.8 million in 1975, roughly 3 million in 2007 and 3.3 million in 2008. This

tendency accelerated at the beginning of the 1990s and even more in the 2000s (OECD, *Education at a Glance*, 2009).

Developed countries are the most popular destinations for international students, whatever their origins. According to OECD statistics, 45 % of those who study abroad do so in OECD countries. Along with the traditional strong attractiveness of western countries, Northern America is very attractive and China rapidly emerges as a major destination for international students. The main factors behind such evolution have been thoroughly studied by various authors (OECD, *Migration Outlook*, 2010): political strategies carried out by States, growing mobility of people and information, dissemination of new technologies, greater interdependence of economies and societies, evolution of the labour market (internationalization of firms in need of more internationalized highly skilled labour force), growing internationalization of higher education institutions with different forms (offshore mobility, franchising, alliances and partnerships, etc.).

Without consideration of intraregional flows, the ESPON space as a whole attracted 35% of international students in 2006-2008, North America 21.9% and Asean+3 only 2.9 %. These figures have significantly changed in the 2000s. In 2001-2003, for the same geographical ensembles they were as follows: 34.1% for ESPON, 27.2% for North America and 1.6% for Asean+3. From this, we can conclude that the attractiveness of ESPON has increased (+0.9), that of North America has dramatically decreased (- 5.3) and that of Asean+3 has slightly increased (+1.3). Germany, France and the United Kingdom received roughly 30% of those students in 2006-2008 and we find 10 European countries in the top 20 world destinations.

When looking at the geography of Europe's attractiveness in students flows, we observe a decreasing attractiveness of Europe in many countries, especially in Africa, in the Mediterranean basin, and in former USSR (WP14). Actually, Europe's influence in terms of attractiveness has been reduced to EU member countries. This is confirmed by other recent developments concerning the neighbourhood, notably a dramatic decline of international students' flows from Morocco and Turkey over the last ten years. Meanwhile, the number of students sent by Turkey to the USA has substantially increased (8,770 in 1999 and 12,276 in 2007). Unmistakably, what was traditionally a preserved area for Europe has become an area of competition to attract highly skilled young people who think they will have more opportunities in the US labour market than in Europe.

This leads us to a paradoxical conclusion: as a whole, ESPON is a more attractive region in 2006-2008 than in the early 2000s, since its share in the global inward flows of international students has increased. But the area in which its attractiveness used to be traditionally high has dramatically shrunk. ESPON remains a major attractive destination, but it must face stronger competitors in many regions of origin (especially in Africa).

Looking at the future: a fragile position in the knowledge economy?

Knowledge has been the prominent concern for many years within the European Union (EU) (Kale & Little, 2007) (WP11). The development of a European "knowledge economy" has been at the heart of EU's economic policy since the launching of the so-called "Lisbon strategy" in March 2000, confirmed by the EU 2020 strategy. The strategic goal of Lisbon was that in the coming decade Europe should "become the most dynamic and competitive knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment". Later at the European Council meeting in Barcelona in March 2002, it was agreed that the "overall spending on R&D and innovation in the Union should be increased with the aim of approaching 3 percent of GDP by 2010. Two-thirds of this new

investment should come from the private sector"[3]. These targets were very ambitious and, at the same time, the European summits failed to provide the necessary instruments to reach these targets and left a number of critical questions unanswered. How should the private sector be stimulated to increase R&D investments? How should the responsibilities to reach the targets be distributed between the individual governments and the EU institutions? Furthermore, the Lisbon strategy did not focus enough on the need to increase the flows of knowledge and technology, in particular from the two other Triad regions. It was therefore not surprising that the Lisbon strategy failed to a large extent.

We will now focus on the position of Europe as a leading knowledge-based economy in relation to the United States and Japan, usually known as the Triad (WP11), but we will also take the largest emerging countries into account. This comparison leads us to the following conclusions (Table 4):

- Europe is lagging behind the other two Triad regions in terms of investments in science and technology, and the gap is larger for business-related indicators than for publicly funded R&D. Japan reaches 3.5% of the GDP in R&D and the US around 2.8%, but this ratio stagnates around 1.8% in the EU-27 (OECD, 2010). In the world's total R&D, the share of EU-27 has decreased from 26.1% to 23.1% within some years, mainly due to China's high level of growth which has increased from 5% to 8.9% during the same period.
- Europe lags behind the other two regions in terms of innovation in science and technology as patent statistics show. If, in 1997, EU-27 accounted for 33% of high value patent grants, this share has dropped to 28.7% in 2008.
- Europe is increasing its competitiveness on the global market for high-tech exports, whereas both the US and Japan have lost market shares. Even so, Europe still lags behind the US and Japan in per capita terms.
- The US also performs better than Europe in terms of high quality scientific publications. Although the absolute number of published articles is higher in Europe, the number of publications per capita is lower.

	Gross R&D		High-value patent grants by the USPTO		High-tech export*			World scientific publications**		
	2002	2007	1997	2008	1997	2003	2008	1995	2000	2008
EU-27	26.1	23.1	33	28.7	16.8	17.6	17.4	30.6	41.7	26.1
USA	35.1	32.6	33.5	30.9	23.4	16.8	13.6	30.2	36.9	22.2
Japan	13.7	12.9	26.8	27.5	14.7	10.6	8.1	7.3	10.7	5.3
Rest of the world	25.1	31.4	6.7	12.9	45.1	54.9	60.9	31.9	35.9	46.4
	100	100	100	100	100	100	100	100	100	100

Table 4 Market shares of the Triad poles for some indicators of knowledge

* From EU high tech exports are excluded Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, and Slovenia, as well as exports among EU member countries. High-technology products include aerospace, communications and semiconductors, computers and office machinery, scientific instruments and measuring equipment, and pharmaceuticals.

** Science and engineering articles in all fields, ICI publications

Source: UNESCO (2010) ; NSF (2010)

[3] See http://europa.eu.int/comm/lisbon_strategy/index_en.html

In this general context of a major intensive knowledge economy lagging behind the other two poles of the Triad, we have to highlight the importance of Europe's capacity to rapidly acquire the knowledge developed in the other two regions. The underlying reason why such a capacity is so important is the role of diversity or heterogeneity of knowledge for new combinations to emerge, i.e., for the creation of new knowledge and (technological) innovations (Schumpeter, 1939; Nelson & Winter, 1982; Nonaka, 1994; Nooteboom, 2004). According to this perspective, new knowledge and new technology are assumed to emerge from the combination of existing knowledge bits. Hence, in order to improve the production of new knowledge, Europe needs to enhance its potential to absorb new knowledge created in the other Triad regions through different channels of knowledge flows.

Europe has shown improvements in terms of its absorptive capacity of knowledge flows for some important indicators. The EU receives large amounts of FDI and technology licenses from the Triad, which makes it able to absorb new knowledge through these channels. Although still behind the other Triad regions, Europe is rapidly increasing its imports of high-technology goods. However, in comparison to imports to the US, they are not of the most advanced quality. Besides, a very fast increase in payments for royalty and license fees from the EU member countries indicate a rapid increase in the imports of knowledge to the EU between 2002 and 2008 (World Bank, 2010). The EU imports much more than the USA and Japan together: in 2008, EU-27 has a negative balance of 59$ per inhabitant for royalty and license fees, while the figures for Japan and the US are positive and reach respectively 58 and 214. This could indicate that Europe does not invest enough in R&D. Nevertheless, the region is successfully taking advantage of other countries' knowledge and technology through the import of royalty and license fees. Technology exports from the EU are less than half of those from the US per capita, indicating that the EU is not up to standard when it comes to developing new knowledge attractive on the world technology market. Europe also lags behind in attracting knowledge flows via academic channels in comparison to the US. In contrast to academic and migration patterns, the European business community shows a high propensity to collaborate with the other Triad regions as well as with the rest of the world through strategic R&D projects and the use of international prior knowledge through patent citations.

Europe in the world: functional relations and political cooperation

How is the EU embedded in the globalization in a functional perspective?

We characterize here Europe according to the nature and magnitude of its relations with the rest of the world. The political implications of these functional relations are of the highest importance: not all regions can be considered as strategic for Europe in terms of its functional links; in not all regions Europe has kept a strong functional influence. The objective is to integrate and synthesize the analyses that position Europe in the world according to human, trade of goods, firms, and knowledge (WPs 3, 7, 9, 10, 11, 13, 14, 15, 17). More precisely, we use data on migrations, students' flows, trade of goods and services, FDI, air connections, networks of firms in advanced producer services, maritime networks, flows of quotation in stock exchanges, and investment in real estate at the end of the years 2000, except migrations (around 2001).

Two perspectives are adopted here: to assess the position of world regions and countries by considering their importance and the nature of their relations for Europe; to assess the importance of Europe for world regions. In the former, we highlight the parts of the world that are important for Europe, while in the latter we focus on the influence of Europe in all parts of the world.

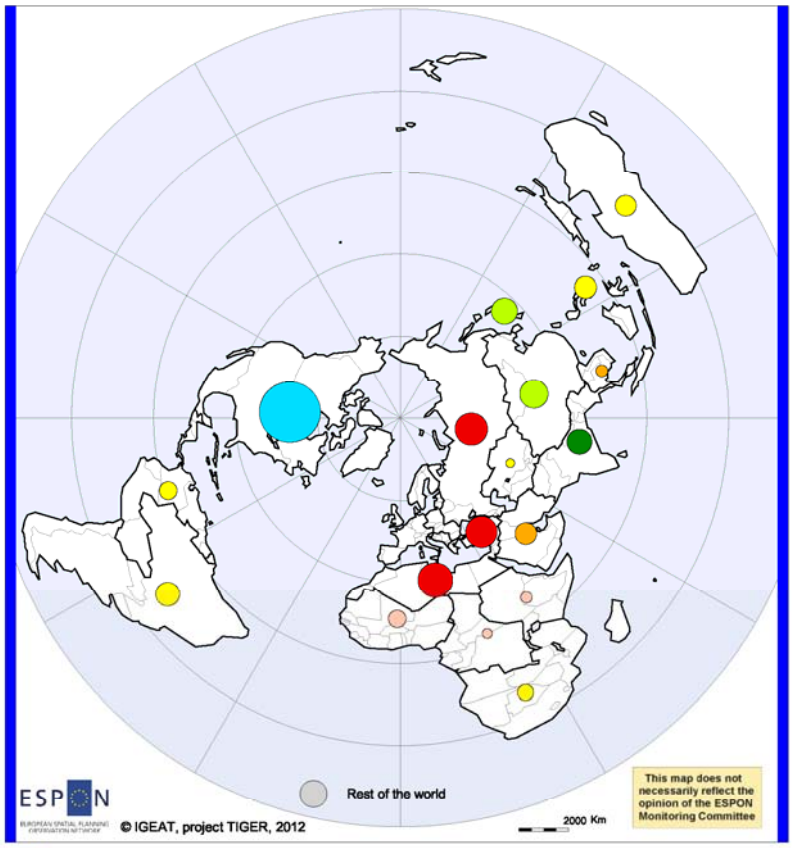
Figure 13 classifies regions according the importance and the nature of their relations with Europe. We thus calculate the share of each region in the external relations of

Europe as well as the specialization of this relation. Figure 13 shows the world regions that really matter for Europe: the size of the circle gives the average weight of each macro-region in the extra-continental relations of Europe while the colour is the result of a classification that takes into consideration the importance of these regions for Europe but also the nature of the links:

- First, Northern America is by far the most important region for Europe and the links mainly concern economic relations, especially those related to firms (networks of firms, networks of firms in advanced producer services or FDI). Trade in services is also specific, though not the trade of goods. In contrast, flows of transportation and people are in relative terms less important in the EU-NAFTA links, meaning that the share of NAFTA for Europe is lower than the average in these types of flows.
- Second, the neighbourhood regions are also of high importance for Europe, and are classified in the same type (red). In contrast with the NAFTA areas, those areas have strong relations with Europe in human and transportation flows, and to a lesser extent in trade of goods, but they have a lower importance in most other economic relations (trade of services, networks of firms, FDI etc.).
- Third, Sub-Saharan Africa has similar profile of relations with Europe than the neighbourhood, except Southern Africa, but this part of the world is less important for Europe (pink).
- Fourth, Eastern Asia and Southern Asia (green types) mainly has economic relations with Europe, but also send students to Europe (green). Eastern Asia distinguishes by more intense relations of trade in goods and services as well as FDI.

On figure 14, the influence of Europe in different areas is mapped according to several types of relations. This is synthesized in the typology based on the domains in which Europe really matters for the world regions. The influence of Europe is maximal in Southern and Eastern neighbourhood, whatever the flows considered. Eastern neighbourhood distinguishes by much lower European influence in the area of human flows. In Sub-Saharan Africa, the influence of Europe is still high in certain areas, such as the attractiveness for students and the importance of European Foreign Direct Investments. In contrast, the weight of Europe in this region has dramatically decreased in trade or migrations. Europe remains important for Northern America, especially when firms are considered (FDI and networks of advanced service firms). In contrast, the influence of Europe is quite low in Asia, in nearly all sorts of flows, except for students.

In figure 15, we move to the country scale: in each map, the colour represents the share of Europe in all set of relations of each country; the size of the circle indicates the importance that this country has for Europe. The last map is the average of all 5 types of flows. All flows considered together, we can display the limits of a functional Europe that goes from Vladivostok to Cape town, already highlighted in the ESPON in the world project. However, looking into detail, the influence of Europe in Sub-Saharan Africa has severely declined and is very heterogeneous from one country to another (see section 1 of this chapter). In the former USSR, the influence of Europe is high in economic and transportation flows while the attractiveness of Europe is rather weak in terms of human flows. The main conclusion of these figures is that Europe's influence goes far beyond the institutional borders of the EU and its close associates. In particular, the impact of Europe is very high in the neighbouring countries. This defines a large functional Europe that include Northern Africa (migratory flows, daily relations, trade), the near-East, Turkey in particular, and the former USSR Republics, mainly because of intense economic relations. Beyond this immediate Eastern and southern neighbourhood, the importance of Europe for world countries decreases.



Relative specialisation (1 = average specialisation)

Types	Weight Part of Total	Ports	GaWC	Offices	Stock Ex.	Migrations	Flights	Students	Trade	Service Trade	FDI
1	24,48	2,6	0,4	0,3	0,4	1,6	1,7	1,2	1,0	0,6	0,0
2	17,45	1,1	1,7	1,0	1,1	1,2	0,8	0,8	0,9	1,0	0,4
3	4,61	0,1	1,4	0,8	0,4	0,9	1,8	1,2	1,6	1,3	0,6
4	4,06	1,5	0,9	0,0	0,3	1,5	1,1	3,0	0,6	0,7	0,3
5	28,02	0,3	1,0	2,1	0,8	0,7	0,8	0,5	0,9	1,3	1,8
6	11,19	0,2	1,2	1,2	1,3	0,2	0,5	1,6	2,0	1,1	0,7
7	4,71	0,0	1,5	0,0	4,0	1,3	0,2	1,5	0,7	0,6	0,0
8	5,48	0,0	0,0	0,0	2,1	0,2	0,7	0,1	0,0	1,3	5,6

Figure 13. Regions of the world according to the importance they have for Europe and the nature of their links

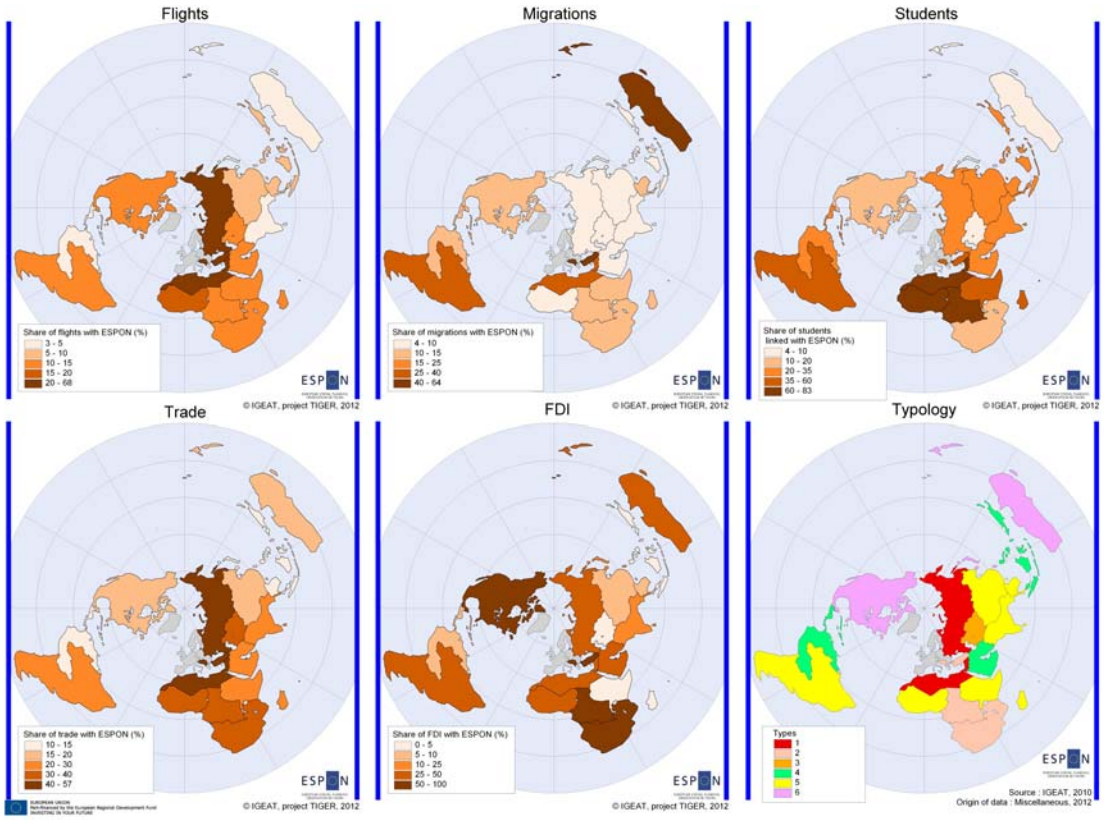


Figure 14. The influence of Europe in the world regions in various types of flows

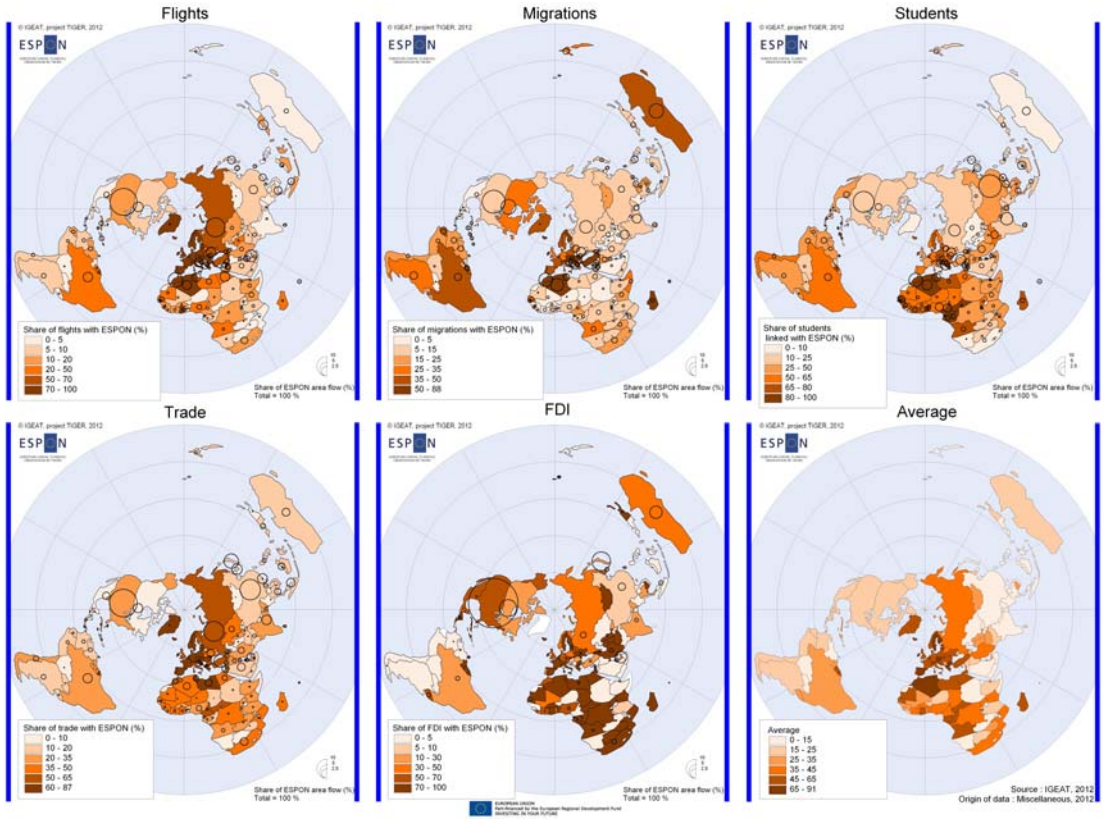


Figure 15. The influence of Europe in the world countries in various types of flows

Does political external cooperation cope with the geography of functional relations?

In this final part of the chapter, we consider the status of the EU as an actor in international relations as well as the concrete configuration of its relations with the world (WP18). By considering the geography of its external political relations, we try to assess whether it is consistent of not with the geography of its functional relations.

First, the EU is an actor in international relations, playing a role at the global scale. Since the 1970s, many researchers have debated the nature of the European Union, especially in terms of its status as an actor in international relations (Hoffmann, Keohane, 1991; Moravcik, 1993; Lequesne, 1996). An actor is an individual or collective entity that can elaborate a strategy of its own and acts autonomously to achieve its goals (Crozier, Friedberg, 1992). It can also be defined as an entity whose transborder actions impact the distribution of resources and the definition of values on a global scale (Batistella *et al*., 2006). From a realistic approach, some specialists of international relations continue to doubt the status of the European Union (EU), basing their assumption on an interesting argument: the EU is neither a state nor a polity and it cannot act rationally (Lavenex & Merand, 2007). Consequently, it is not "a fully-fledged player in international relations" (Rosamond, 2005; Hveem 2000). With this approach, the very concept of actor should, by no means, be applied to the EU (Diez, 2005; Sjursen, 2006). As early as 1977, Sjöstedt defined the European Community as an incomplete actor that was unable to combine the various interests and preferences of member countries in view of an autonomous external action (Sjöstedt, 1977). Last, various studies have come to the conclusion that the status of the European Community is fragile because of internal dividing lines between states and institutions or between European institutions (Abelès, Bellier, Mac Donald, 1993; Abelès, 1994; Mény, Muller, Quermonne, 1995), and even conflicts between some directorates of the Commission in charge of different policy areas (Coombes, 1970; Michelemann, 1978; Cram, 1994; Lequesne, 1996). These conflicts are sometimes illustrated by incoherent discourses in certain domains.

On the contrary, recent studies have assumed that the EU is an actor and have pointed to the fact that its uncertain status as a polity has been made clearer by the treaties of Maastricht and Lisbon (Bretherton & Vogler, 1999; Helly & Petiteville, 2005; Petiteville, 2006; Franck, 2008). The debate between the tenants of the aforementioned approaches has been partially settled by various authors. Caporaso and Jupille, along with Bretherton and Vogler, proposed new definitions of an actor in international relations (Bretherton & Vogler, 1999), suggesting, for example, the "collective actor" (Caporaso & Jupille, 1998). Others have proposed the concept of "European system of external action" (Helly, 2005). As such, most recent approaches consider the EU an actor (Bretherton & Vogler, 1999; Petiteville, 2002; Smith, 2003; Helly & Petiteville, 2005).

De facto, EU is an international actor because it has signed almost 800 bilateral international treaties with more than 220 countries and regional organisations since the 1950s. It tends to build and organize its relations with third parties in the same manner as member countries organized their mutual relations in the framework of the European integration. Besides, voluntarily deprived from the possibility to use the force, the European Union tends to build its external relations and security on a legal basis and mutual obligations. The negotiation and signature of international treaties is then considered an efficient mean to disseminate commonly accepted norms. By accepting these norms, the signing partners become more predictable.

The number of bilateral international treaties signed by the European Union has been steadily growing over time. The growth accelerated in the 1990s. This evolution may be due to the enforcement of the Maastricht Treaty which changed the political status and nature of the EU and turned it in a more visible partner. It may have been caused also by the rapidly evolving international situation after the end of the cold war and the collapse

of the USSR. This evolution made the international situation more fuzzy and uncertain. It may have pushed many countries to sign international treaties in order to bring some kind of stabilization in international affairs. Besides, many new countries appeared at this moment (namely the former Soviet republics) which also started to sign treaties.

Second, the geography of international relations of the EU measured by the treaties signed highlights the growing importance of the neighbourhood, mainly in specific areas. The European Communities have started to sign international treaties in the year 1957. Since then, the importance of the neighbourhood has been growing. The neighbour countries are more and more numerous in the top list of partner countries (in terms of number of treaties signed) as time goes by: only 5 countries in 1957-1970, and 14 in 2006-2011. This reveals a regionalization trend based on the intensification of external political relations. In the total, the share of the neighbourhood in the total number of international bilateral treaties is pretty high: 46% in September 2011. However, without Norway, Switzerland and Iceland, the share of the neighbourhood falls to 25% of the total: 7% for the Mediterranean countries, 8% for the Western Balkans, 10% for the Eastern neighbours including Russia. Last, if one considers only the neighbour countries eligible to the neighbourhood policy (without Turkey, Russia and Western Balkans), the percentage is only 17%. Such a low percentage should make us cautious vis-à-vis the official European stances which present the neighbourhood as a priority for EU.

The neighbourhood countries have signed bilateral treaties mainly in a few domains: external relations, foreign and security policy, fraud, justice and security, transport, free trade agreement. Indeed, we observe the existence of regional patterns of political cooperation. In the neighbourhood, the relative weight of “external relations”, “foreign security policy”, “justice and security” is higher than the world average, as well as the share of “Free trade”, “R&D + Education” and “Transport” agreements. Besides, the importance of the security issue is higher than in any other part of the world.

Third, surprisingly, EU has signed no bilateral treaties with the other great commercial powers for various reasons:
- Japan is characterized by the impenetrability of its domestic market (Bretherton and Vogler, 2006). Very little efforts have been made so far by the two parties to sign commercial agreements in spite of a continuous dialogue. Bretherton and Vogler state that the relation is based on mutual indifference and it is not likely to change in the near future: Japan has no geopolitical interests in Europe and the contrary is also true. Besides, the structure of Japan’s production and exports is to a certain extent complementary to that of Europe (computers, electronic devices, etc.). This explains that without any agreement, Japan is the third commercial partner of EU, after the USA and China.
- There are many subjects of disputes between China and Europe: recently China was not granted the status of market economy by the EU; the Chinese domestic market is not really open and does not really want to sign a free trade agreement with such a powerful partner as the EU in order to maintain its current situation. Beside, the European Commission won’t be able to launch any trade negotiations with Beijing as long as there is no common position of the EU member states on that topic.
- For a long time, the negotiation of a free trade agreement was not considered a priority on both sides of the Atlantic Ocean: the USA is already the first economic partner of EU (exchanges of services, of goods and investments) and the contrary is also true; the customs duties are already very low; there are many trade and apparently insoluble disputes in various domains (mutual accusations of public subsidies to Boeing and Airbus, trade of genetically modified agricultural goods and food and other trade conflicts) but they concern only a very low share of mutual exchanges. More importantly, nothing in the world order really gave an impetus to such negotiations. But the situation has changed because of the emergence of China as a world serious competitor. This may encourage the USA and the EU to come up to an agreement in order to loom larger in

negotiations with China and other emerging powers. The idea of a free trade agreement was proposed in 2007 and it was in the agenda of the last EU-US summit at the end of 2011.

Fourth, despite the complex political construction of the EU, permanently facing contradictory internal forces, the EU shows signs of consistency and coherence in its international relations though not always resulting in efficiency. Our analyses have pointed the high degree of coherence in the trade policy of the EU (WP18). On the one hand, official stances that insist on the neighbourhood as a priority do coincide with an active diplomacy in this part of the world, notably through the signatures of trade agreements with most neighbouring countries. Only Eastern partners have not signed this type of agreement with the EU, for complex reasons, among which the reluctance of Russia and its persistent influence in several former Soviet countries. On the other hand, the correlation between development aid and the existence of trade agreements is a sign of coherence between different forms of external action of the EU. In contrast, our analyses show that EU policy seems to be shaped rather than it shapes the reality, notably in the trade area. First, EU does not seem to have the capacity to overcome resistances in the signature of commercial treaties, despite the EU is by far the most important economic partner for Eastern neighbours. Hence, the geography of the international treaties signed reflects to a certain extent the degree of willingness of the partners. Second, we highlight the low impact of trade agreements in the intensity of commercial flows between EU and third countries: while most Mediterranean countries have signed free trade agreements with the EU in the 2000s, and some even before (Turkey is a part of the Custom Union since 1995), it has not reversed the declining influence of the EU in most of them. In contrast, the shift of EU trade toward the East has been achieved without any trade agreement.

To take another example, the EU seeks to secure its energy procurements at affordable prices. Consequently, the energy relations with the neighbourhood have been deepening in several steps since the 1990s. All the European initiatives in the neighbourhood prove that the European Commission is pretty single-minded with a spectacular continuity in energy external action whereby EU tries to disseminate its own norms, regulations and preferences. However, the outcomes of this policy are often thin and fragile:

- Most of the agreements signed are not legally binding.
- The only binding document signed by many countries in the part of the world is the Energy treaty Charter. But Russia, one of the most important partners of EU in this field, has decided to withdraw in October 2009. This is a major set-back which dramatically downsizes the impact of the principle of regional integration in the field of energy.
- A West-East gradient with decreasing levels of commitment and obligations: the level of integration is the highest in the Balkan countries; it is lower but growing in Moldova and Ukraine; with more distant countries (Kazakhstan for instance), the agreements signed are much less ambitious. They do not promote any legislation harmonization and propose only exchanges of information, regular consultation, cooperation to facilitate the development of new infrastructure, organization of joint seminars and conferences… without any calendar or road map and no real commitment.[4]

Conclusion

The analysis of flows around the world shows the weight of Europe (EU and close associates) in the world. By no doubt, Europe remains a prosperous area still lying at the top in the international division of labour, because of its specialization in both medium

[4] *Memorandum of Understanding on Co-Operation in the Field of Energy between the European Union and the Republic of Turkmenistan*, Achgabat, 28 mai 2008.

and high technological goods and knowledge-intensive services and the concentration of top level functions in global value chains, as illustrated by the importance of financial and commanding functions in major European cities.

In the meantime, European decline is evident and will continue in the next decade, however the types of relations considered. The diminishing weight of Europe in the world goes hand in hand with the shrinkage of its influence in most parts of the world, that result in a area of influence more and more limited to the neighbouring countries. Hence, we can define a functional Europe that goes beyond the limits of ESPON to include neighbouring countries from the East (former USSR), South-East (Turkey) and South (Northern Africa).

The functional weight of Europe in the world certainly supports the EU as a global political actor. This results in an active diplomacy signing treaties all over the world, and increasingly with the neighbourhood.

2.2 European territories in the global flows

Introduction

In this part of the report, we change the scale of analysis by highlighting dynamics within the European space. These dynamics are to be understood in the light of global and European trends identified in the previous chapters.

In this chapter, we use two different and complementary approaches: the first focuses on countries and regions, using the usual administrative constraints of the data; the second focuses on cities using data on global networks in which European cities are embedded. In both cases, the objective is the same: understanding the internal dynamics of Europe in relation to the links between European territories and the rest of the world. In contrast to most studies on the territorial impacts of globalization, we synthesize here a rich material that allows a systematic assessment of European territories in the global space of flows and networks. Previous studies sharing this objective have already drawn some important conclusions (DG Regio 2008; Capello *et al.,* 2010), especially that sectoral specialization is not the decisive factor determining regional success in the world economy. Hence, it appears very important to go beyond a sectoral approach and to directly assess the position in the world economy through their flows and through their role in the international division of labour.

Also, even though connections to the rest of the world may be correlated with better economic performance in general, this relationship is far from being strong and systematic. This is why we interrogate here this relationship in various ways.

Finally, in the last section of this chapter, we provide a synthetic typology that integrates data on regional and city scale that position European territories in the global economy.

2.2.1 European Countries and Regions in the international division of labour

The position of Europe as a whole in the international division of labour and in global the value chains has been analysed in the previous chapter leading to important conclusions. First, the European territory keeps a very high position in the division of labour, selling goods with medium and high technological content, while buying raw materials, food products and low added value of manufacturing goods. Second, when services are considered, Europe also plays a major role in the international trade and has a very positive balance, notably in services with a high intensity of knowledge such as financial as well as computer and information services. Third, in a context of globalization of value chains, Europe still concentrates commanding functions – measured through headquarters location – in increasingly spatially dispersed value chains.

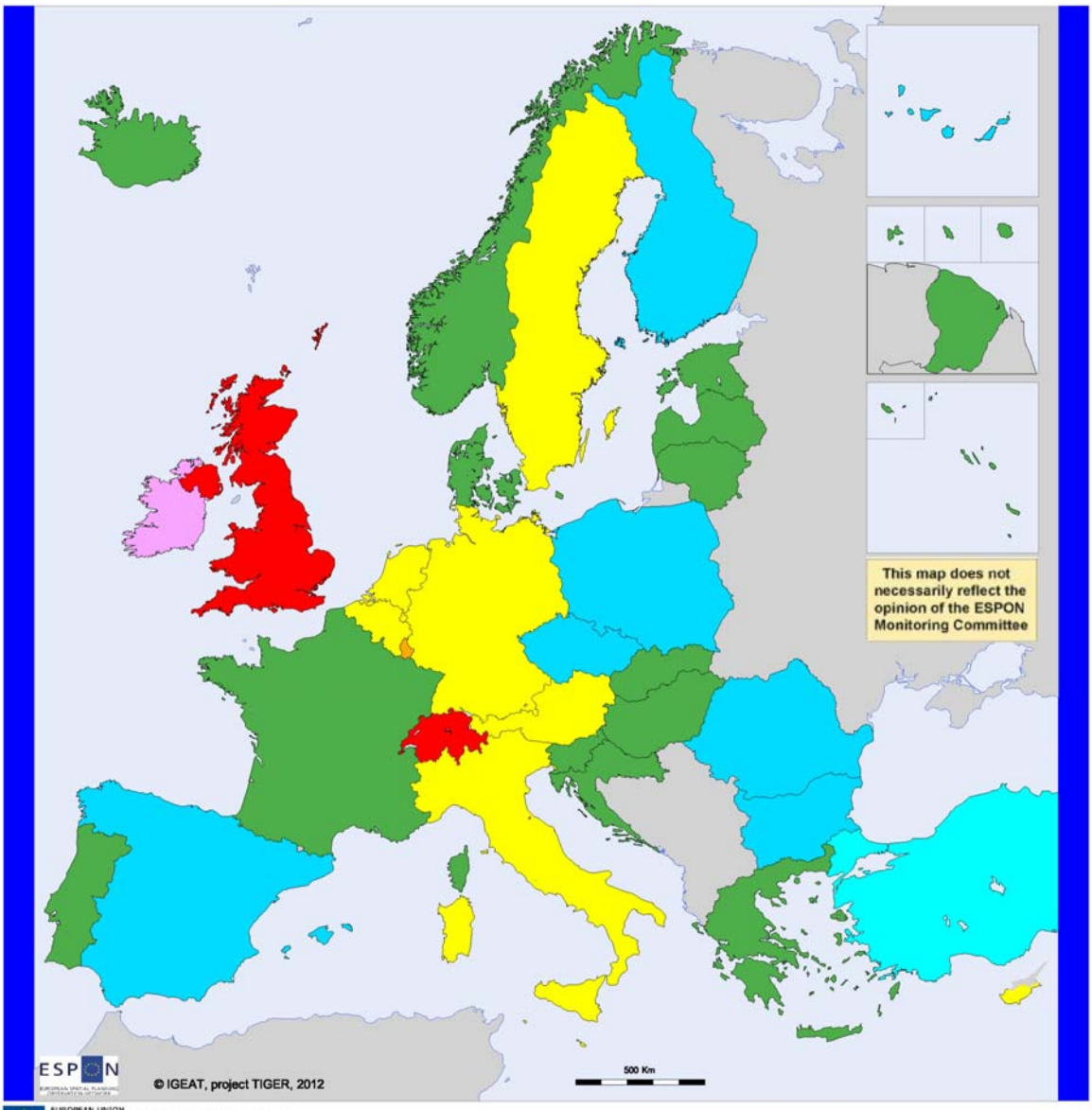
This general picture hides the huge diversity within the European space as regards these three different aspects of the position of Europe in the international division of labour.

First, there are still differences among European countries according to their position and specialization in the world trade: Northern and North-Western Europe still focus on manufacturing technological productions, while South Eastern countries in more labour intensive industries (figure 3). In contrast to most Northern Europe, the evolution of the UK is similar to that of the USA with a clear deindustrialization process, resulting in negative trade balances in most manufacturing goods, while these countries remain specialized (in relative terms) in the most technological segments of production. As for

Central-Eastern countries and Mediterranean countries, they occupy intermediate positions, except Greece which is still very specialized in non manufactured goods. In this respect, some southern countries such as Spain, Portugal – and to a lesser extent Italy – seem to occupy a difficult position in this division of labour, where they are unable to compete on the most technological productions with North European countries but also on the labour-intensive and/or medium segments with countries where labour is much cheaper (East European countries for automotive industry; clothing and textile with Asia…) (DG Regio, 2008). However, in a long term perspective, we can observe a convergence among European countries: countries like Spain and Germany for example are much less different in 2008 than some decades earlier (figure 3). While less spectacular, the evolution of Spain is similar to that of South Korea: moving from raw material to more labour intensive industries in the first phase (1967-1977), and then rising in the value chain toward goods with higher technological content. This convergence also characterizes central and eastern European countries such as Hungary after the fall of communism.

Second, services also highlight contrasting positions of European countries in the international division of labour. Some European countries are specialized in services rather than goods in their international economic relations: Ireland and Luxemburg sell more services than goods while in Denmark, Iceland, Greece, Cyprus or Malta, trade of services represent more than half of their trade of goods, while this ratio is around 0.30 for EU as a whole. In contrast, all East and Central European countries have the lowest shares of trade in services, except Estonia. If we consider big countries, we have a contrast between the UK, whose role in international trade is very much focussed on services, and Germany, which sells high added value goods to the rest of the world.

Moreover, European countries also differ in the types of services they sell to the rest of the world. Here again, we observe differentiated positions in the international division of labour (figure 16). A first distinction is made between countries specialized in high level services (in hot colours) in contrast to the others. Among the former, Luxemburg, Switzerland and the UK distinguish themselves in very high specialization in financial services while Ireland is the first European exporter of computer and information services. The other countries (in yellow) have a more diversified range of high level services, and do not reach such high degree of competitiveness in very specific high level services. In the latter group, the share of basic services (transportation, construction) is higher, but the green group is characterized by higher specialization in more knowledge intensive services while the green group is specialized in basic services. As for Turkey, its specific position is related to exclusive specialization in transportation services.



	Somme	Transportation	Travel	Communication	Construction	Insurance	Finance	Computer and information	Royalties and license fees	Other business services	Personal and cultural services	Government services
Type 1	71185	5,1	0,6	0,8	0,0	10,9	8,4	39,6	2,4	31,4	0,4	0,5
Type 2	212925	13,1	2,2	3,4	0,7	4,7	23,7	4,8	9,8	33,6	2,2	1,8
Type 3	47358	5,4	0,2	4,2	0,7	5,7	64,6	1,2	0,8	13,4	3,2	0,8
Type 4	418525	26,8	2,3	4,4	3,3	2,3	4,1	6,9	9,2	38,1	0,6	2,0
Type 5	111973	28,2	2,8	2,9	5,7	1,3	4,0	11,5	2,7	38,5	1,6	0,7
Type 6	203042	49,2	2,2	3,1	3,3	0,9	2,0	3,3	5,6	27,2	1,9	1,2
Type 7	8697	60,9	0,0	5,5	8,4	5,7	4,3	0,1	0,0	1,2	10,4	3,5
Total	1073706	26,4	2,1	3,6	2,7	3,2	10,5	8,1	7,1	33,4	1,5	1,5

Figure 16. Classification of European countries according to the types of services they sell to the rest of the world, 2008-2010

Third, Western Europe still concentrates commanding functions at global level, as indicated by the fact that 39.8% of the headquarters of the 2000 biggest world firms were located in Western Europe in 2006. In contrast, Eastern Europe concentrates none of these headquarters.

Very roughly, we may distinguish 3 types of countries:

i. Leading countries of North Western Europe and Northern Europe have very high positions in the division of labour, are specialized in services with a high intensity of knowledge, including finance, and still concentrate commanding functions of big transnational firms whose production is dispersed in complex value chains across the world (Western core European countries and Nordic countries). They distinguish themselves in their form of participation in the global economy, notably between service-oriented (e.g. the UK) and manufacturing (e.g. Germany and Italy) economies (WP7).
ii. Mediterranean countries have converged towards the European average in their position in the international division of labour but still significantly lag behind. They certainly suffer from their in-between position, in that they are not yet competitive enough on the most advanced segments of production of goods and services, and have also lost market shares on more intensive segments.
iii. Central and Eastern European countries have rapidly converged to the European average since the fall of communism, some central European countries having benefited from huge investments in low, medium and even high technological goods. However, on the one hand, they keep a low position in the value chain in which they are embedded and notably lack any commanding functions; on the other hand, they increasingly suffer from the competition of countries with lower labour costs on low and medium technological segments.

This very general picture does not necessarily reflect the diversity of regional positions in the global trade flows (WP7). We now turn to this very important question.

The most important result is the evidence of a huge diversity in the openness to extra-EU trade as illustrated in figure 17. The figures vary from 0.1% in Corsica to 31% for Flanders. Hence, we can expect global trends to affect regional economies across Europe in a much differentiated way because of this huge variety in the participation in global trade. Of course, participation in global trade is only one way to take part in the global economy and we need other types of data from other sectors to give a more complete picture of the regional participation in the global economy. However, many European regions are relatively closed to the global economy and many of those regions have indeed very limited relations to the rest of the world.

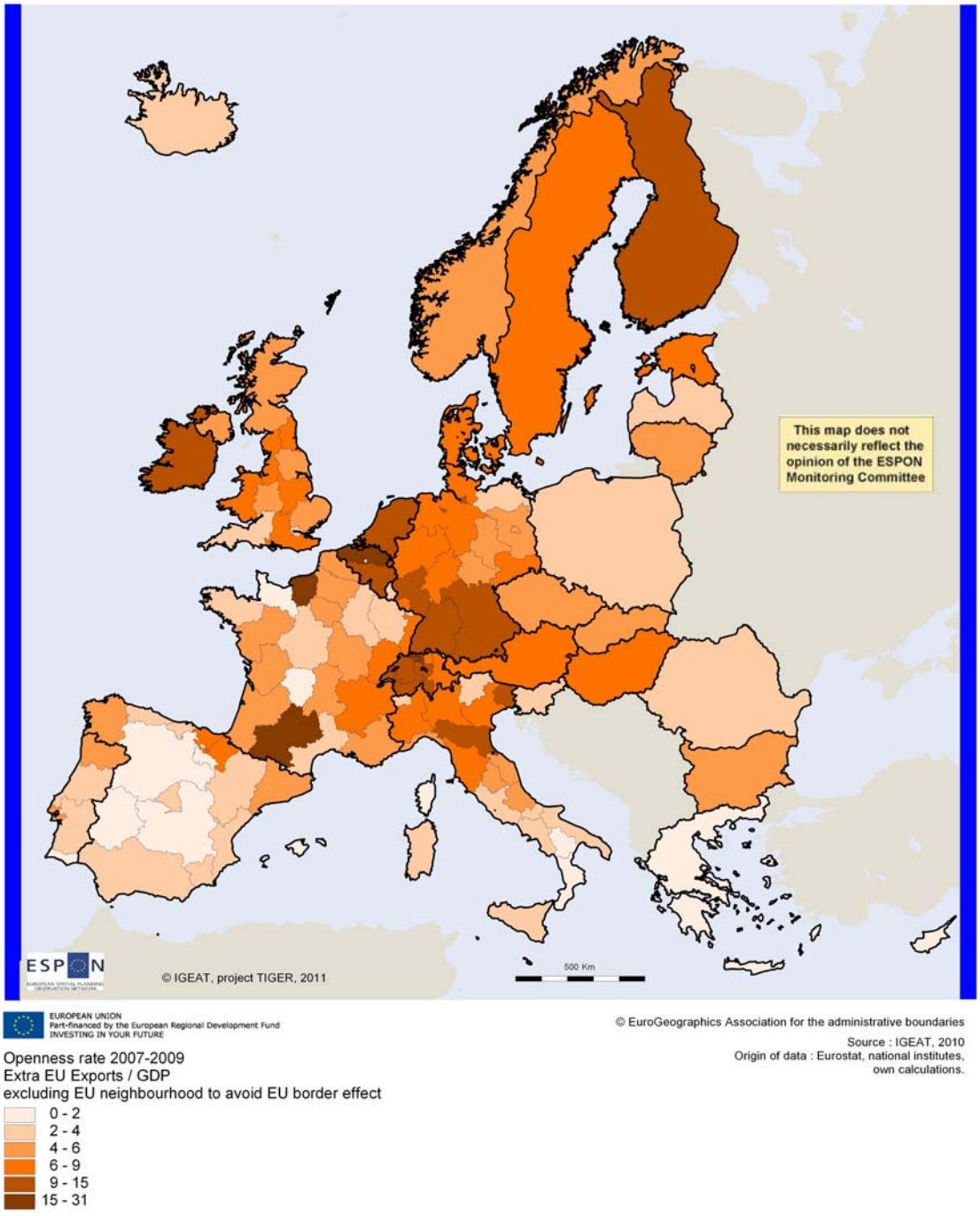


Figure 17. Openness to extra-ESPON and neighbourhood trade of European regions, average 2007-2009

Note: extra-EU and neighbourhood exports exclude all exports within the ESPON space as well as its immediate neighbourhood (Western Balkans, Near East, former-USSR and Northern Africa)

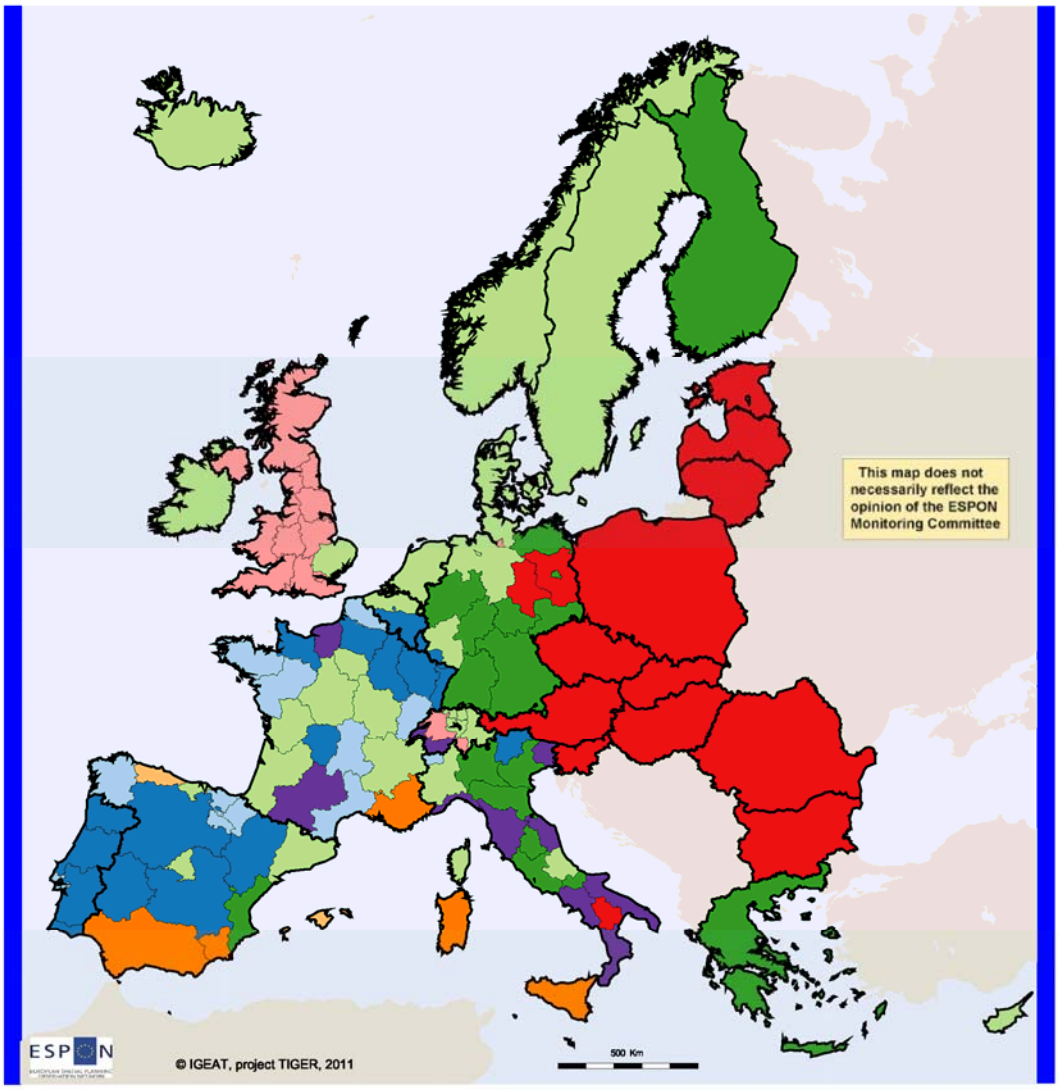
Beyond this diversity in the regional openness to trade, we must also underline the diversity in the regional geography of trade, synthesized in figure 18. The more or less global pattern of regional trade as well as the geographical diversity of trade is related to a number of decisive factors such as the historical relations, largely dependent on the

national belonging of the regions, the presence of major hubs, notably ports and most of all the nature/specialization of the regional trade. Type 1 is a very Europe-oriented one but with a specific orientation of its trade toward both Central-Eastern Europe and the eastern neighbourhood of Europe. Type 2 is highly directed toward Western Europe. This is also true for types 3 and 6, but the former is clearly characterized by a more global pattern of trade, notably through its relations with Northern America. Type 4 is similar to the average but with a trade more oriented toward Eastern European regions, China and Japan. Type 5 can be named a global type through its strong orientation to Northern America (12.4% while the average is 6.6%) as well as Asian regions. Their trade is thus oriented toward the other poles of the triad and Asian emerging markets. Type 8 is the least EU-oriented of all types. These regions have specific relations with former USSR, the Middle East and Africa, i.e. Europe's neighbourhood. It should be reminded here that most of these regions are relatively closed to extra-European trade. Type 10 mainly includes regions with a non European global profile, with mainly specific relations toward the southern neighbourhood, i.e. Middle-East and Northern Africa.

Figure 19 synthesizes the goods in which regions are the most specialized and competitive. It highlights a complex regional geography in which the old core/periphery pattern still seems to play a role: in most core regions of North-Western Europe, the most competitive sectors are chemical goods, machinery/transport or electronic goods, while in most peripheral regions light and food industry still dominate the pattern of trade.

We also observe a link between specialization and the geography of regional trade: a number of regions have a global pattern of trade oriented toward the most developed or emerging markets because of their competitiveness in medium and high technological goods. In contrast, regions specialized in light industry are generally more oriented toward Europe and/or neighbouring regions. As far as metropolitan regions are concerned, they show a more global geography of trade despite the low level of competitiveness in most of the manufacturing goods. This is in line with the global orientation of their participation in the global economy in general and is probably due to their capacity to be competitive in some very specific highly technological goods, as shown in the case of London for pharmaceutical products.

We finally raise the question of the impact of the regional pattern of trade on competitiveness (WP7). We do observe a correlation between the global geography of regional trade and the level of development without being able to identify the direction of causality. Yet, while results suffer from evident methodological issues, we found no evidences that neither better competitiveness in products with higher technological content nor a more global trade is related to better regional economic performance. This last result is of course dependent on the focus on goods rather than services and thus would require a more global assessment of the relation between participation in the global economy and economic performances at city/regional level. Only when integrating the different approaches at regional and city level, we may give further evidence of the relationship between the global economy and cities/regional economic performances.



Share of the different world region in the trade of the group

10 Types		Western Europe	Former USSR, except Central Asia	EU Central and Eastern Europe	Western Balkans and Turkey	Northern Africa and SE Mediteranean	Central Asia of former USSR	Middle East	Sub-Saharan Africa	Northern America	Central America & Carraibian	Southern America	China	Southern Asia	Southern East Asia	Japan	Korea	Taiwan	Insular South East Asia	Oceania
	1	59.1	7.8	17.0	3.0	0.8	0.6	0.6	0.4	2.4	0.2	0.4	2.8	0.5	0.3	0.8	0.9	0.4	0.5	0.2
	2	78.1	1.1	4.8	1.1	1.3	0.0	0.7	1.1	4.3	0.3	0.9	2.8	0.4	0.2	0.7	0.3	0.2	0.6	0.4
	3	65.5	2.2	5.1	1.1	1.7	0.1	1.4	1.4	7.3	0.7	1.2	4.5	1.0	0.5	1.7	0.7	0.5	1.3	0.5
	4	56.0	4.1	10.1	2.1	2.1	0.5	1.7	1.1	6.5	0.5	1.1	5.3	1.0	0.5	1.8	1.0	0.5	1.2	0.5
	5	52.2	2.2	3.7	1.5	1.5	0.1	2.1	2.3	12.4	0.8	1.3	7.2	2.0	1.0	2.3	1.2	0.7	2.3	1.0
	6	66.1	2.9	4.1	1.1	3.6	0.2	2.1	3.7	4.3	1.2	2.0	2.7	0.8	0.4	0.9	0.4	0.2	0.8	0.3
	7	47.8	2.9	2.0	1.4	2.4	0.0	1.9	9.9	9.7	5.0	4.5	3.4	0.9	0.5	1.1	0.5	0.2	0.8	2.3
	8	35.0	8.1	2.0	2.5	15.5	1.7	7.6	4.7	5.1	1.2	1.7	2.1	0.6	0.3	0.6	0.3	0.2	1.1	0.4
	9	36.8	0.1	1.3	1.3	1.5	0.0	0.6	11.4	6.3	0.2	1.4	9.3	2.5	3.8	1.6	1.4	0.2	18.9	0.7
	10	51.2	3.6	4.3	2.0	4.1	0.4	5.1	2.3	7.0	1.1	1.8	4.6	1.4	0.5	1.1	0.6	0.3	2.1	0.9
	Average	60.8	3.6	7.7	1.7	2.0	0.3	1.6	1.5	6.6	0.6	1.1	4.5	1.0	0.5	1.5	0.8	0.5	1.2	0.5

Figure 18. Typology of the geography of trade at regional and country level

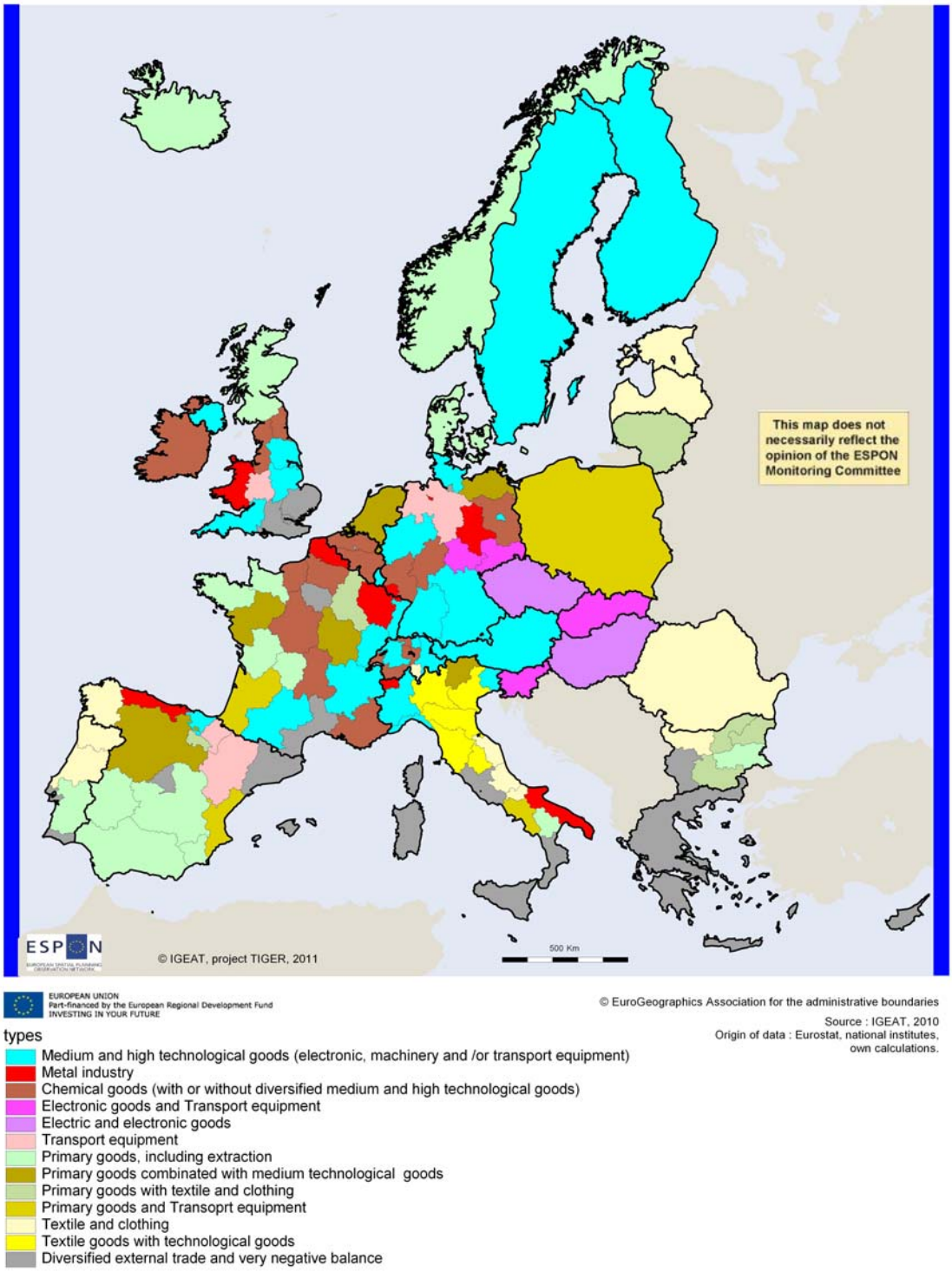


Figure 19. Typology of regions according to their specialization and competitiveness in the trade of goods

To illustrate spatial dynamics at different scales and relocation processes, we move to some specific value chains: the clothing industry (WP8.1) and the automotive industry (WP8.2).

In the clothing industry, the high concentration of power within clothing value chains as buyer-driven ones is on the top of the chain, where marketers, branders, manufacturers, and retailers compete with each other. The distribution of value is related to the following groups of activities: high value added activities are design and product development, distribution and marketing, while low value added activities are production activities (from assembly to full package production). The high value added activities require special competences and have high entry barriers because of the huge concentration of the top of the chain (Gereffi *et al.,* 2003).

At global scale, we observe a massive relocation of production toward eastern Asia in the last decades (Grasland, Van Hamme, 2010), that has been accelerated in the last ten years, when ASEAN +3 has increased from 35 to 47% of world exports, excluding intra-block trade of the EU, ASEAN + 3 and NAFTA. In the same period, EU has nevertheless maintained its global position around 6% of world exports, increasingly focused on luxury or high quality clothing. But at the same time, EU internal markets have faced increasing competition, mainly from Eastern Asia.

Within the Euro-Mediterranean space, there has also been a massive relocation of production. The process of diffusion toward periphery is shown by the geographical shift of export specialization in clothing for European countries since 1968 (figure 20). While core countries of North-Western and Nordic Europe were already weakly specialized in clothing industry in 1968, Mediterranean countries – except Spain – benefited from a growing specialization in clothing until 1988, after which more peripheral countries of the Euro-Mediterranean space benefited from relocation, notably in the Balkans and in Northern Africa. Morocco, Tunisia, Turkey and some Eastern European countries reached their specialization peak in the clothing industry in 1998. In 2008, all European countries faced a decline in that specialization in favour of Southern and Eastern Asian countries. In this general picture, the position of Italy is atypical. On the whole period, Italy remains specialized and with positive trade balance in the clothing industry, in spite of a moderate decline since 1998. The dynamic clothing and textile clusters of the so-called third Italy have been able to remain competitive despite high labour costs. The Italian industry's strategy is the relocation of production activities, while conception, design and trade circuits are still controlled by Italian firms. Moreover, the Italian industry has favoured high value added and luxury clothing, abandoning mass production.

European clothing chains show a clear separation of tasks between Eastern and Western Europe. The high value added activities are located in the latter and the lower value added jobs have been relocated to the former. The main push factor in relocation of clothing production from Western to Central and Eastern European (CEE) countries was outward processing trade[5] (OPT). The OPT support Western buyers to improve their competitiveness through cost savings. Labour costs account for above 50% of the production costs in clothing and their reduction remains an important task.

The most widespread form of relocation of production tasks from Old to New member States is subcontracting. Firms from Central and Eastern Europe operating as subcontractors are more often involved in regional rather than global chains and the producer-producer OPT relations prevail over retailer-producer relations in the European labour-intensive industries, which restricts firms' ability to obtain knowledge and to upgrade (Pellegrin, 1999; Bair, 2006; Pickles *et al,* 2006). To take an example, the competitive advantages of Bulgarian clothing industry may be outlined as high flexibility, well-skilled labour force producing high quality and high value production, close geographical distance to the markets which ensure just-in-time production, fast delivery and reduction of logistic costs, high reliability of the supply chain, political stability and

[5] Outward processing trade regime (1991-1998) is settled as EU trade policy tool in relation with the GATT's MultiFiber Agreement (1974-2004). It assures EU producers a tariff-free temporary export to Central and East European countries of semi-finished goods for further processing.

implementation of EU policy of social, labour and environmental standards, etc. The preservation of developed competences, facilities, skilled labour force and existing long-lasting business relations within the EU will have a positive effect for the future of industry.

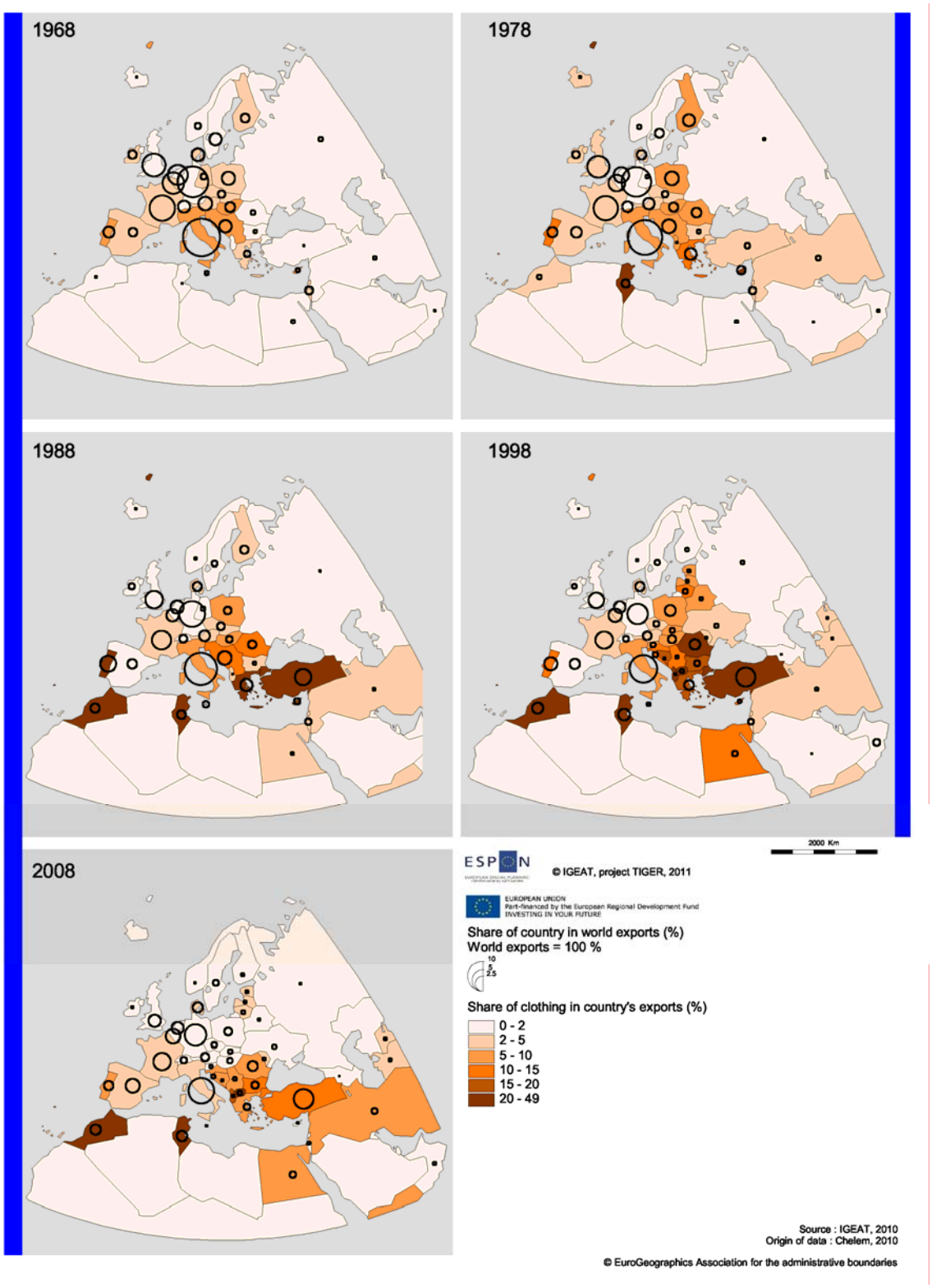


Figure 20. Relocation of clothing industry within the Euro-Mediterranean Space, 1968 – 2008

At regional scale, the clothing industry is characterized by strong regional concentrations, despite the small size of production units. In the context of crisis faced by Europe's clothing industry in the last decade following the intense competition by low labour cost countries, mainly from Asia, some Marshallian districts resist better than others although nearly all of them have lost employment and added value in the sector (DG Regio report, 2008). Several regional strategies can be distinguished in this crisis context. Economic diversification is of course the most efficient strategy: the Kortrijk area in Belgium for example has for long diversified its economic structure through a horizontal diversification to other sectors (such as furniture or agro-business) and, recently, toward business service activities (DG Regio report, 2008). But other regions have re-centred on design, conception or sales and almost completely abandoned production, as can be observed in some Italian districts or in the Hering-Ikast district in Denmark where production has nearly disappeared.

By contrast, in Eastern Europe, cases of downgrading are more often observed than cases of upgrading. Clothing firms lost their high value added functions well-developed until the end of 1980s and they shifted to low value added production operations in the 1990s. After mass involvement of clothing firms in the international commodity chains they faced high competitive pressure and the challenge to upgrade. There are rare cases of firms which succeeded to develop high value added activities as design and marketing, mostly for local /national markets. The widespread upgrading practice is an improvement of competences in production process and product development. The replacement of functional upgrading by process and product upgrading in some cases generates better performance in terms of companies' sales and profits, both in old and new member states (Amighini *et al.*, 2003; Pickles *et a*l, 2006; Roukova *et al.*, 2008). Being “locked” in subcontracting and thus having limited access to resources, knowledge and freedom of decision-making, CEE companies of many branches have mostly upgraded their products and processes. They have very limited ability to change their functions within particular chains and to take key positions in the triangular production (Smith *et al.*, 2005). Hence, during the first decade of the 21st c. some CEE countries succeeded to keep or even improve their performance in clothing commodity chains.

In the Bulgarian case, the internationalization of the clothing industry has developed intensively up to 2008. The Bulgarian producers succeeded in getting orders from European buyers as a result of the shift from Central European countries to the Eastern European ones. The clothing specialization of neighbour countries Greece and Turkey played a key role in the relocation of orders. The Bulgarian clothing industry was hit by the recent global economic crisis but it recovers faster than many other manufacturing branches in the country. Remaining part of the European clothing production, combining low labour costs and qualified workers, as well as well-maintained business relations with foreign partners from leading EU economies turn out to be important factors for this sector to overcome the crisis.

A comparison of the clothing firms survey data[6] for 2010 with those surveyed in 2005 shows that 2/3 of the firms continue to operate and 1/3 of them have closed or changed their activities. Most of the bankrupt enterprises are foreign ownership – 54% of Greek owned firms and 66% of Greek-Bulgarian joint ventures, as well as 33% of Italian owned firms. None of German, Belgian or other Western European partners from the survey closed their enterprises in Bulgaria. Considering the difficult economic situation in Greece and Italy, the negative impact on the Bulgarian clothing industry is rather due to the inner regional than to global challenges. A considerable percentage – 81% of the respondents - has not changed partners since 2004 and simultaneously some significant

[6] A survey of 69 Bulgarian clothing firms was implemented in 2011, including all 60 firms interviewed in 2005. Details of the survey data analysis are presented in the WP8.1

restructuring of partner countries is observed (figure 21). EU economic leaders as Germany and France increased their shares in 2011, the former becoming the second important destination for the Bulgarian clothing exports in 2011. The shares of Greece and Italy have significantly decreased.

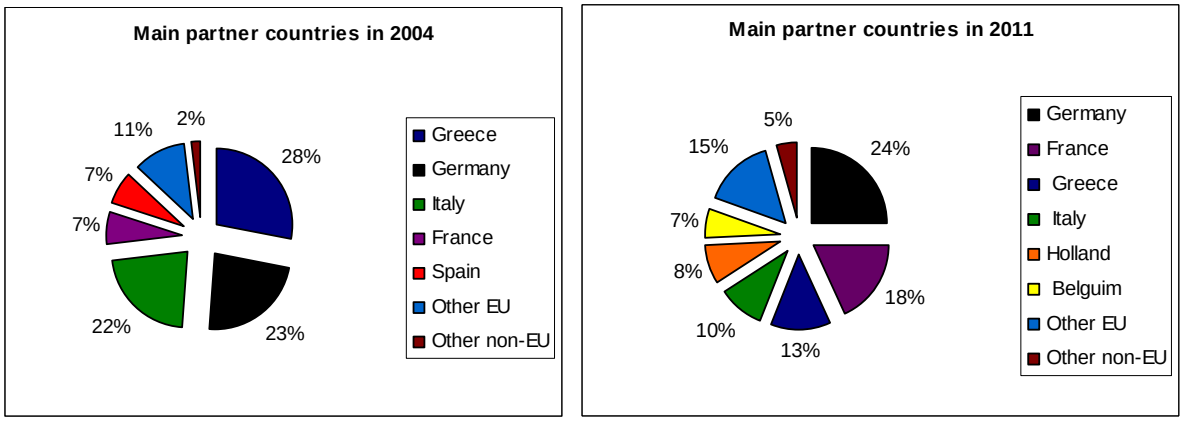


Figure 21. Main partner countries of Bulgarian clothing firms in 2004 and 2011

Source: Survey data.

During the crisis investment was slowed down, though 70% of the firms invested in new equipment, 50% in new production lines, and almost a half of the respondents in production of higher value added products. It means that the product and process upgrading led to an increase in firms' competences to implement higher value production and more complicated production operations, which might be considered as strong competitive advantages. The clothing industry remains strongly export-oriented – 80% of the interviewed firms export between 75 and 100% of their production. Still subcontracting represents an important share of production (for 71% of the firms the subcontracted production accounts for more than 90% of their total production).

The negative impact on employment in the clothing sector resulted in a drop of 20% from 2007 to 2009. In 2009 the sector employed 110 000 persons, representing 20.5% of manufacturing employment in the country. South Central and South Western regions account for 57% of the Bulgarian clothing employment. The regional importance of clothing employment measured as a share of manufacturing employment shows that there are many regions (NUTS 3) where clothing industry is of crucial importance. In 2009 the Blagoevgrad and Kurdzhaly districts had shares of 54%, and many others (Smolyan, Rousse, Haskovo, etc.) above 30%. The clothing industry in Bulgaria faces difficulties due to shrinking labour force since 2005. The service sector and office work appear more attractive than factory work. According to experts, it needed about 25 000 seamstresses more on national level in 2010. This imbalance between demand and supply of clothing labour force can also be observed in other CEE countries – Poland, Slovakia, and Romania. It might be considered that any further relocation of clothing production by Western European buyers will be due not only to cost-cutting strategies but also to the fact that the capacity potential of East European clothing industry is almost accomplished to a considerable extent in terms of labour.

In the automotive industry, we will briefly discuss here the on-going dynamic processes at global and European scale by highlighting the importance of global drivers. The automotive value chain has very different characteristics compared to clothing and thus shows very different patterns of relocation in the last decades. It is mainly a producer-driven industry with a high concentration in big transnational companies producing automobiles and dominating the world markets. This feature is related to high technological contents and the importance of R&D and knowledge to remain competitive. Hence the high level of qualifications required, not only at the top of the value chain

(such as design, conception and technological innovation), but also in assembling factories for which medium rather than low qualifications are generally required.

For this reason, the developed countries of the triad still concentrate most of the headquarters of car producers as well as auto and truck parts companies. In 2011, Western Europe still concentrates 39% of transnational firms (in sales) in the automotive industry, a stable figure compared to 2006. Also Japan shows a stable concentration of headquarters around 30%. In contrast, in North America the share of world headquarters in automobile has declined from 27% to 20% between 2006 and 2011 while within the same period Korea and China have increased their commanding functions in automotive industry from 3% to 5% and from 0% to 3.5%, respectively.

The fragmentation of production in the automotive industry has mainly involved offshoring of low-skilled tasks to affiliates and subcontractors in foreign countries with more attractive factor conditions. Work tasks involving more knowledge intensive operations are slowly entering the automotive sector in Western Europe as Original Equipment Manufacturers (OEMs) tend to focus more on core competences in form of R&D and prototype design.

At the global scale, in contrast to usual figures in the manufacturing industries, the share of ESPON has increased significantly in the world markets during the last two decades, while the other two big blocks have remained stable (figure 22). Moreover, the general trend in ASEAN+ 3 hides the contrast between the decline of Japan in favour of other competitors, such as Korea and in the last decade China. Indeed, in number of cars produced, China has recently overcome Europe (WP8.2). Another feature of the automotive industry is the persistence of regional patterns of organisation. Organisation in this form has resulted in more integrated continental industries in the EU, North America and Japan, where a strong emphasis is put on internal markets of major producers. Hence, despite its weak competitiveness on the world markets, the number of cars produced in North America remains high and is almost entirely absorbed by the internal market. This is also the case in Europe.

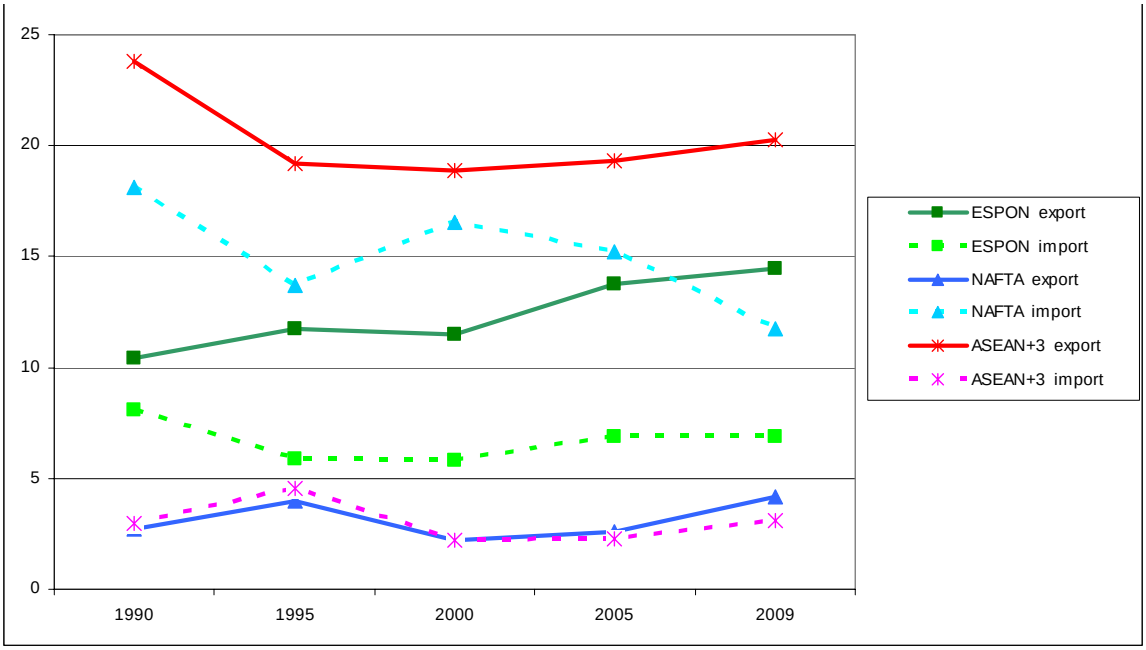


Figure 22. The share of the triad in the world exports of automobiles, intraregional trade excluded

Source: CHELEM, 2011

Within the European space, the production pattern in Western Europe has moved further east to locate in countries in Central and Eastern Europe (CEE). This shift is clearly depicted in Figure 23, along with the high levels of foreign turnover shares and two-way trade in road vehicles in Europe (cf. WP8.2). Offshoring production stages to the CEE area is supported by a number of issues interesting for companies in Western Europe. Main reasons are for example proximity to markets, no tariffs and quotas in trade with other EU countries in CEE, access to raw material (such as steel and other important ores), more lenient tax laws and low costs of land and labour. Thus, the enlargement of the EU has increased the possibility for actors in the European industries to enter new emerging markets in Europe.

In the perspective of the European automotive industry the first diffusion stage in Europe was aimed towards developed countries with lower per capita income, such as Spain, Portugal and former Yugoslavia, compared to the wealthiest countries such as Germany, France, Sweden and the UK (Maddison, 2010). In the second diffusion stage, new emerging markets have been entered by OEMs (mostly from Western Europe) that relocate production in developed countries with much lower per capita income, in CEE and other developing countries located in Africa, Latin America and Asia.

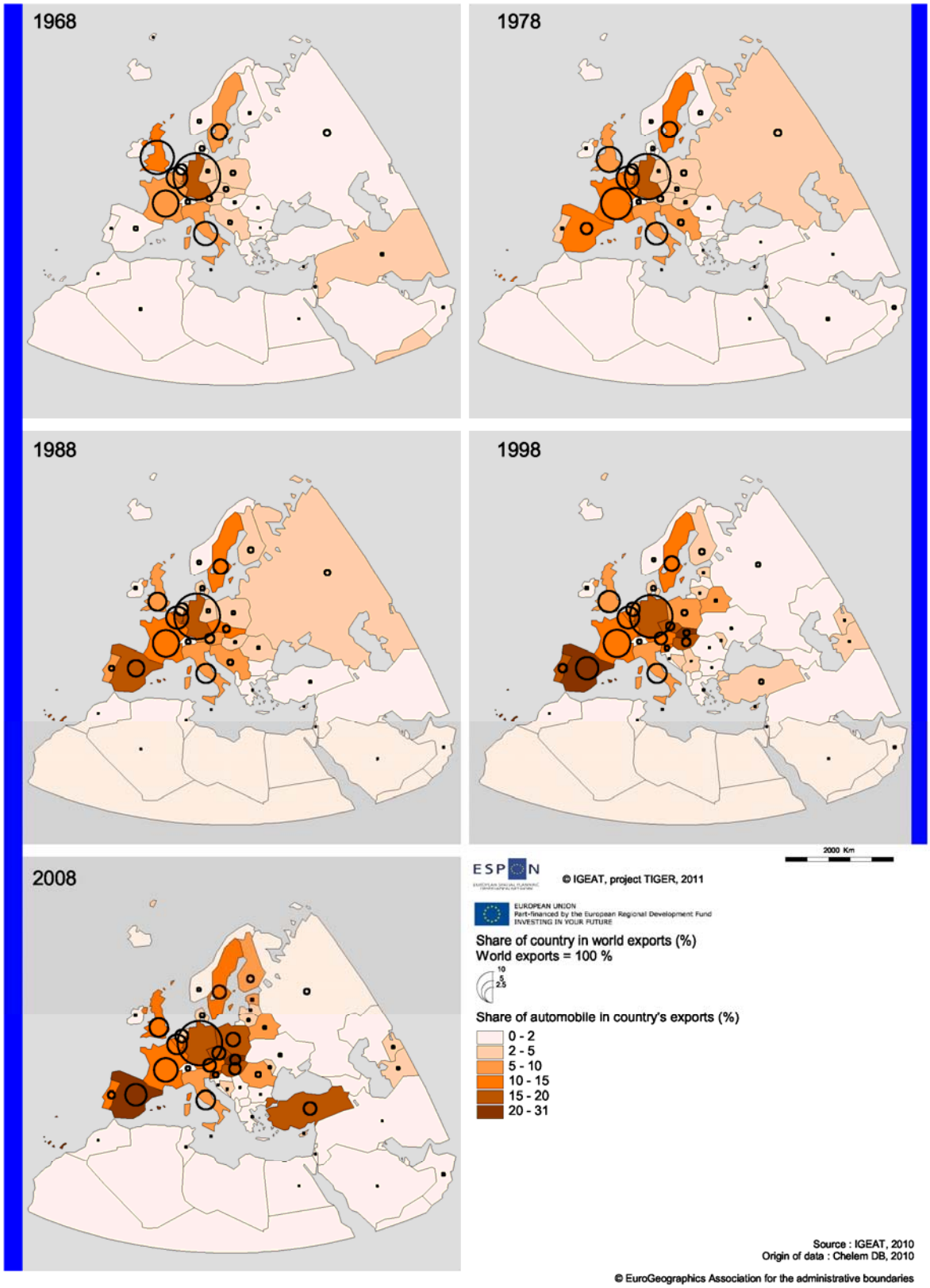


Figure 23. Relocation of the automotive industry within the Euro-Mediterranean Space, 1968 - 2008

2.2.2 European cities in global networks

Theoretical considerations

Having examined the global trends of countries and regions in the first part of this chapter we turn to consider developments associated with contemporary globalization that have largely been missing in previous Europe-wide spatial analyses. These are the changing positions of Europe's cities in the increasingly interconnected global "space of flows" identified by Castells (1996) which informed the Lisbon agenda (Pain 2011). As argued by Friedmann (1986) and Sassen (1991), "world" or "global" cities and their extended functional regions (Scott 2001; Hall and Pain 2006) play a key role in the world economy. They concentrate resources which are critically important for economic growth and its sustainability - people, knowledge, talent and finance – also associated with the concept of urban and regional competitiveness in the literature. However such resources must be understood as not being fixed in places but mobile between cities and regions in an increasingly globally interlinked economy. European cities are key nodes or gateways for cross-border flows at different geographical scales yet, for over a decade, European policy has lacked clear insights into the practical relationship between this nodal role of cities and the spatial concept of urban polycentricity referred to in the European Spatial Development Perspective (1999) at different scales (Halbert *et al.* 2006; Pain 2011). Information on the changing functional position of cities in transnational spaces of flows in this section of the report can help to inform this important gap in the evidence base for Europe 2020 policy on flow-place interactions in a global context. We single out five city functions - advanced business (producer) services, real estate, stock exchanges, air and maritime - as the most important foci for analysis.

Trends in the concentration of gateway functions

Europe and the US are well known as highly urbanized and economically developed regions in a world perspective thus, given the importance attributed to concentration for the global economic position of cities by Sassen (1991), we first consider trends in their urban concentration drawing on population, headquarters and the five gateway functions, relative to a surrogate measure of economic competitiveness, GDP.

The first observation emerging from a Europe-US comparison (table 5) is that the degree of concentration in major cities is far more pronounced in the US than in Europe. In general, Europe is characterized by an absence of major agglomerations, apart from London and Paris. The historical and political development of Europe has been associated with the emergence of large and medium size capital cities however, in the most highly populated area of Europe – the crescent stretching from Northern England to Central Italy - these are interlinked in a dense urban network. This urban structure which approximates to Brunet's description of the economic "backbone" of Europe (1989; 2002) popularly referred to as the "Blue Banana", can be considered a "meta-city" space for Europe's most important flows in a global economic context (Pain, 2010).

Thus, a second observation is that, in spite of differences in the spatial outcomes of urbanization processes in the US and Europe, key European gateway functions show a similar level of concentration to those in the US. Strong functional interrelationships between cities in Europe are allowing cross-border specialization and complementary nodal roles to emerge. Just a few cities, most notably London and Paris, play the role of global gateways between the European territory and the rest of the world. Nevertheless, trends in the concentration of gateway functions in major cities, both in the US and in Europe, are unclear. The urban concentration process has not been strong in these world regions during the past decade however market integration within the European Union

may be expected to promote the growth of newer gateway cities in the recently incorporated Eastern European territories.

	EU			US		
Population		**1999**	**2007**		**2000**	**2009**
	1 to 5	7.93	8.16	1 to 5	18.0	17.6
	London	*2.56*	*2.57*	*New York*	*6.5*	*6.2*
GDP		**1999**	**2008**		**2001**	**2008**
	1 to 5	11.7	12.1	1 to 5	22.6	23.1
	Paris/London	*3.9*	*4.2*	*New York*	*8.7*	*8.9*
Headquarter			**2008**			**2008**
	1 to 5		57.2	1 to 5		40.1
	Paris		*22.5*	*New York*		18.2
GaWC (extra)			**2008**			**2008**
	1 to 5		18.24	1 to 5		27.00
	Paris		*4.96*	*New York*		*9.54*
Harbour functions (extra)		**1996**	**2006**		**1996**	**2006**
	1 to 5	32.22	29.23	1 to 5	50.02	45.54
	Rotterdam	*7.15*	*6.67*	*New York/Miami*	*11.56*	*9.85*
Air service (extra)		**1999**	**2008**		**1999**	**2008**
	1 to 5	69.19	70.66	1 to 5	65.79	64.38
	London	*27.31*	*27.92*	*New York*	*27.54*	*30.70*
Stock exchange (extra)			**2010**			**2010**
	1 to 5		82.95	1 to 5		/
	London		*54.09*	*New York*		*100.00*
Real estate (extra)			**2007-10**			**2007-10**
	1 to 5		82.81	1 to 5		92.76
	London		*48.04*	*New York*		*68.08*

Table 5 Synthesis of the concentration of population, GDP & gateway functions in the EU and in the US

Dynamics of European cities in global networks

Advanced business services (WP3)

Analyses of data on the global office networks of knowledge-based, advanced business services supplied by the Globalization and World City Network (GaWC), shed light on the "connectivity" generated between cities by their operations in Europe and across the world (Beaverstock *et al.,* 2000; Taylor, 2004). Time series analyses of standardized data for five service sectors - banking/finance, accountancy, law, advertising and management consultancy – in 285 global cities, allow us to consider city business connectivity changes between 2000 and 2008, and therefore the changing position of Europe in a global context. Non-standardized data available for 525 global cities in 2008 also reveal the network position of more recently globalizing cities, in particular some Eastern European cities, not present in earlier datasets (table 6).

First, there has been a dramatic re-balancing of city connectivity at a global scale. 60% of cities worldwide gained connectivity to global service networks between 2000 and 2008. There has also been an increasing concentration of connectivity in the Pacific Asia region, especially in Shanghai, Beijing, Seoul and Sydney. Looking to the future, it is important to note that China and also India are centralizing in the world city network due to the increasing connectivity of their major globalizing cities and this trend is likely to continue with ongoing urbanization and economic development in these regions.

Second, the results show that from 2000 to the first half of 2008, immediately before the financial crisis, the pre-eminent global connectivity positions of London, New York, Paris

and Hong Kong remained stable however, and that Paris actually improved its global rank position. Inter-city functional links generated by business network connectivity have remained strongest between London and New York but, important for policy, it is interesting to note that East European cities are well connected either to London or to Paris. Warsaw in particular and also Prague and Budapest, have increased the network position of their countries in Europe by 2008 but significantly this has not diminished the global importance of London and Paris.

	Advanced Producer Services		Financial Services	
Rank	city connected to London	London dyad index (APS)	city connected to London	London dyad index (FS)
1	New York	100.00	New York	100.00
2	Hong Kong	80.30	Hong Kong	98.72
3	Paris	78.34	Singapore	85.92
4	Singapore	71.29	Tokyo	82.45
5	Tokyo	68.92	Shanghai	77.88
6	Shanghai	65.40	Sydney	77.70
7	Beijing	64.82	Paris	77.51
8	Sydney	62.10	Beijing	70.57
9	Milan	60.83	Madrid	70.02
10	Madrid	58.46	Milan	65.81
11	Brussels	58.06	Seoul	65.63
12	Moscow	56.67	Toronto	65.45
13	Frankfurt	53.21	Taipei	60.51
14	Toronto	52.63	Frankfurt	59.23
15	Seoul	50.66	Mumbai	58.87
16	Chicago	50.26	Zurich	58.32
17	Mumbai	49.22	Brussels	54.48
18	Warsaw	47.26	Dublin	54.30
19	Amsterdam	47.14	Amsterdam	54.11
20	Zurich	46.79	Moscow	54.11

Table 6 Top 20 cities in the World City Network, 2008

Third, apart from New York, most US cities (including Chicago) show a pattern of decline in global rank position and in some cases actual connectivity falls from 2000 to 2008. Los Angeles, for example, has experienced the second worst rank decline in the world. Yet, if nation state boundaries are taken into consideration, the global network position of the UK appears weak compared to the US, even though London and New York have equivalent global connectivity, due to the greater number of major service nodes present in the US. However, if the cohesion remit of the European Union is taken into consideration in network analysis by grouping Member States together as one territory, we see that Europe takes on a more central global network position than the US in 2008. In contrast to the decline which has been occurring in US cities, 61 out of 95 cities in Europe have increased their network connectivity between 2000 and 2008.

Fourth, when considering the position of cities in financial services networks, which are regarded as having an especially important role in generating and maintaining business concentration, we see the ongoing dominant network position of New York and London. Only 82 cities included in the analysis increased their financial services connectivity between 2000 and 2008, demonstrating that important service network connectivity has been generated by other sectors. Taking the European territory as a whole, accountancy

has been an important generator of global network connectivity, especially for London and Paris, but also notably, for cities across Eastern Europe - Warsaw, Bucharest, Prague and Budapest. Taking nation state boundaries into account again, China, now has three major international financial centres (Hong Kong, Shanghai and Beijing), making it more central in global financial services networks by 2008 and Moscow has had the highest financial services connectivity increase in the world since 2000.

Finally, analysis of the way the 160 global firms in all five sectors are using European cities in 2008 shows six business strategies involving 117 cities. East-West strategic patterns are likely to be a legacy of political-economy divisions prior to enlargement and the extension of cohesion policy and the Single Market.

Strategy 1 – An "Outer Europe Capitals Strategy" (note London is low and not Paris)
Strategy 2 – A "Primate Strategy" (London) – i.e. firms just focusing on London for European work
Strategy 3 – A "Major Western Europe Cities Strategy" (but not Paris, London and Brussels)
Strategy 4 – A "German Strategy"
Strategy 5 – A "British Strategy"
Strategy 6 – A "Dual Strategy" (Paris-Brussels Axis)

Real estate investment flows (WP9)

Commercial real estate provides the urban office infrastructures in which global advanced service networks conduct their business, furthermore, as argued by Lizieri (2009), the financialization of real estate through the creation of innovative financial investment vehicles, stores and locks down value in cities. Firstly, data on buyer, or investor, and property locations supplied by Real Capital Analytics for the top 1000 global commercial property transactions allow us to examine the real estate investment flows into, out of and within cities from 2007 to 2010. Secondly, a correlation between financial services network connectivity and real estate investment data allows us to consider the importance of Europe's international financial centres in global real estate investment flows. Thirdly, changes in the world location and concentration of real estate investment flows are examined to assess Europe's potential exposure to risk as a consequence of international financial crisis (Lizieri, 2009).

First, data for financial services and real estate reveal that, in the global real estate network, cities that have high investment inflows generally also have high financial services network connectivity. There is thus a strong suggestion that interrelationships between financial services networks and real estate office markets are supporting global city network centralities. 116 cities are present in both global networks, drawing attention to the number of cities that are interconnected through these two sectors.

Second, although financial services and real estate network geographies are correlated by almost 30%, demonstrating the strong integration of international financial centres in real estate investment flows, city in- and outflows vary markedly (figure 24). It is important to note that London has nearly three times the real estate investment inflows of New York. In China, Shanghai has far larger real estate inflows than Beijing which may reflect the difference in their financial services connectivity This pattern is less consistent for other European cities however, Berlin for example, ranks 12 for real estate investment inflows but only 66 for financial services connectivity, possibly reflecting a legacy of political economy changes following the reunification of Germany. Nevertheless, the question is raised whether the concentration of financial flows through financial services and real estate networks represents a risk of contagion for major global cities in financial crises.

Third, the largest investment flows for the period were focused on a far smaller number of the world's cities during the year the crisis hit. The volume of investment flows and the average price per property transaction in 2008 (the year when the crisis went viral across cities and countries) was nearly double that in 2007. Furthermore, although the number of cities in the world involved in these flows during the four year period has fallen progressively from 192 cities in 2007 to 110 cities in 2010, the largest fall occurred between 2007 and 2008 (from 192 to 139 cities). This means that After a large fall in average transaction prices between 2008 ($33,69) and 2009 ($20,99), there has been a modest rise between 2009 and 2010 ($22,05).

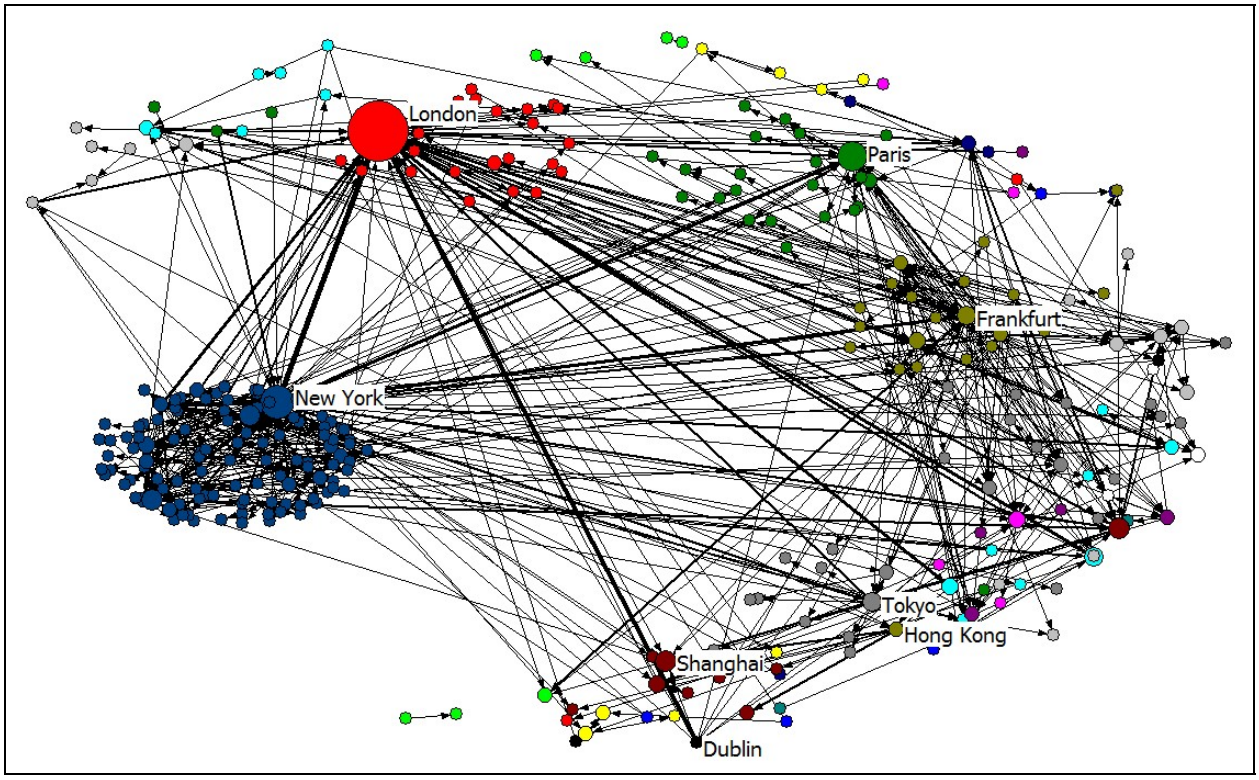


Figure 24. Global office market inflows, 2007-10

Fourth, the surprising feature of the crisis is that the dominance of leading international financial centres, globally and within Europe, has increased rather than decreased, despite their exposure to global capital market volatility and overall sharp capital value falls. The liquidity of dominant internationally constituted real estate markets which is a feature of the world's top ranking global cities seems in practice to have been a key investment driver. Capital has flowed to higher value locations which interlock investors spatially in a small number of financial centres that are functionally interlinked, as evidenced in the correlation between GaWC financial connectivity scores and aggregated real estate investment flow volumes.

Finally, comparison between investment in- and outflows makes Europe look strong by comparison with the US in spite of the clear drop in overall investment levels in the immediate aftermath of the crisis. Europe and London in particular have proved *more* attractive for real estate investment in 2010 compared to the US which has suffered more severely from the impact of the crisis. This contrasting picture for real estate

investment for the US and Europe may reflect trends in the global business network connectivity of US cities, apart from New York, identified for advanced business services.

Stock exchanges (WP10)

To examine the reality of the European space of financial flows concerning stock markets, cross-border listings have been used as a key indicator of local and global relations. A listings database of all issuers whose shares were listed in (or prior to 2010) which were active in 2011, has been compiled using DataStream software available from Thompson-Reuters, together with information from market operator official Internet websites, and stock exchange data officers. The final dataset includes 2763 cross-border listings, with issuers' operational headquarters located in 112 countries. The shares are listed on 66 stock-exchanges and in 79 listing places with some market operators have several listing locations, i.e. NYSE Euronext and Nasdaq OMX Group. Incorporating the location of listed issuer operational headquarters allows us to develop an understanding of listing functioning, economic partnership and spatial preferences, as these are the places in networked firms where major strategic decisions are made concerning the allocation of raised capital. The results from our analyses show that international finance capital raising and listing activities retain strong geographical patterns reflecting proximity, cultural, institutional, specialization and political economy relations which continue to structure the global and European spaces of flows in spite of predictions of a de-territorialization of stock market flows.

First, very few listings show a global pattern. Outside Europe, the only examples are the two New York stock markets - Nasdaq and NYSE Euronext - however Europe attracts issuers from all over the world with just a few exceptions. We can affirm the global profile of the highly liquid London Stock Exchange market. But, in contrast, listing places with a less well-established reputation, such as the Warsaw Stock Exchange in Eastern Europe, have a smaller (macro-regional) area of attractiveness and quote European equities almost exclusively. Mixed profiles are those that are largely regional in character but also include some more geographically distant "proximities" due to established cultural links (historical, linguistic etc.) and economic familiarity, leading to mutual confidence between issuers and investors. For example, the preference of United Arabian Emirates firms for European markets reflects strong links established with London which has become a de-facto standard for Islamic finance in Europe.

Second, a distinct European macro-regional pattern of globalized capital raising activity can be identified. European issuers prefer to have their shares listed on European markets, especially firms from North and Eastern Europe. The influence of institutional "environment" may be a factor because the European and MiFID "passport" creates a wider pool of investors and makes the trade of shares more coherent within Europe. The consolidation process, merger and mutual agreements between European stock-exchanges, increase the potential of the European financial market and increase corporate issuer confidence. North American markets represent the second most preferential listing places for Western European firms, whereas European shares are virtually absent from the Asian stock-exchanges, perhaps reflecting a lack of confidence in these stock-markets and/or in their regulatory environments and quotation systems (European issuers are not yet permitted on the Chinese stock-exchanges listing).

Third, cross-border listing choices illustrate the unequal attractiveness of stock-markets. There is also a spatial effect associated with specialization which reflects issuer confidence in country economies experienced in specific economic fields. World cross-listings are dominated by the two major stock-markets, London and American listing places, which attract issuers from many countries. In Europe, secondary nodes, the German, French, Italian, Swedish, Spanish and Luxembourg exchanges, also stand out, attracting at least 10 issuers from two different origins. The key points of connection in Europe are London, Paris, Frankfurt, Luxembourg and also exchanges in Stockholm,

Oslo, Zurich, Milan with participation also from Madrid, Vienna and Warsaw. However integration of actors from Czech Republic, Denmark, Finland, Hungary, Iceland and Portugal remains lower.

Finally, examining cross-border links within Europe and globally, also reveals the connections between specific cities in stock exchange financial flows. The most broadly-connected European financial centre is London which has its greatest number of links with US cities, especially New York and Houston TX (for hydrocarbon firms), as well as with ex-Commonwealth cities (Vancouver, Toronto, Calgary, Johannesburg, West Perth) and "family" members e.g. Dublin and British Crown Dependencies. But Paris follows in the wake of and is interlinked with London, for example French equities of firms Saint-Gobain or Total S.A are listed on LSE. Thus, within Europe, London's main connections and interactions are with Paris, Amsterdam, Oslo and Stockholm. An East-West gradient identified is not surprising since the stock-markets of East-Central Europe have only entered the free market economy recently.

Air services (WP17)

The main results on the evolution of the position of Europe and its cities in world airflows show Europe to be a highly integrated and interconnected air space, whose most important connections are internal. In 2008, 83.3% of all air connections are between European cities, a moderate increase since 1991 when this share was 80.9%. The share is even higher when immediate neighbourhood is considered. The figure reaches 90% if neighbourhood (former USSR, Northern Africa, Turkey and Western Balkans), are included. Proximity evidently still matters greatly in the intensity of air connections.

At a city level, we can observe a huge concentration of air gateways into a just few major cities, at a level even higher than that in the US. Also, as far as intercontinental flows are concerned, the concentration process has increased between 1991 and 2008, notably to the benefit of the London airports (see table 1). The major hubs show the most global geographical profile of air supply but we do observe specializations between them, for example the role of Paris as a hub for Africa, and Madrid as the main hub for flights to Latin America. Less important European airports are generally far more specialized in their extra-continental supply.

Maritime gateways (WP15)

Analysis of global maritime flows provides fresh insights into the position of European gateway ports and of Europe as a whole compared with ports in other world regions, as well as the external influence of Europe in the world through the vector of shipping.

Port traffic evolution and concentration dynamics - ESPON as a whole has experienced a similar evolution to NAFTA (a decline of its relative weight in world traffics) due to the rapid growth of other regions through the catching-up of container dynamics, as well as a continuous increase of port traffic concentration internally. This stands in contrast with ASEAN+3 where traffic concentration occurred in parallel with a rapid and regular increase of its relative weight in world totals; according to port system evolution models, reaching high concentration levels provides a chance for secondary ports to catch traffic from congested load centres, so there is a need to verify whether the Motorways of the Sea strategy will fulfil this objective to make the European port system less concentrated, while carefully checking whether greater port concentration always means greater port competitiveness, and whether de-concentrating the port system (and in which ways) would benefit both larger and smaller ports.

Global maritime flows are polarized by a small number of dominant port cities acting as hubs. The geographic coverage of their influence points to the fragmentation of Europe amongst relatively small and scattered "nodal regions" compared with the dominant

Asian region and with other maritime ranges showing more spatial continuity (figure 25). Although results vary throughout the years and according to specific commodity groups, they somewhat reflect several key factors such as the strong continental character of Europe (i.e. importance of landward connectivity, hinterlands, inland cities that are not included in the analysis), its morphology that influences vessel circulations (peninsula) and results in a variety and multiplicity of circulation patterns, with northern ports and southern ports belonging to distinct groupings. Another possible factor behind the results is the maintained mosaic of trade orientations among European countries and regions, but this factor could not account for the comparatively less integrated Asian region, which appears much more homogenous. This has a lot to do with the fact that Asia is using dominantly maritime transport while in Europe, land-based transport is vital and the implementation of short-sea shipping policies remains rather limited. Rotterdam appears as the pivotal hub for many commodities as it extends its influence towards a majority of northern European ports: this directly reflects its dual role as both maritime hub and load centre (continental gateway). Barcelona acts as the second dominant port within a Western Mediterranean nodal region, followed by other secondary poles (Lisbon, Venice, Belfast and London). In comparison, Asia appears more integrated (i.e. around Singapore) with a longer-range influence. The case of sole containers in fact shows that most African and Mediterranean ports are included in the dominant Asian subsystem.

The extent to which such fragmentation is a strength or a weakness, compared with other regions remains to be demonstrated. Yet, one may argue that European ports may extend their influence in the global network based on further impetus given to the maritime and ports sector, not only within Europe itself but in relation to nearby partners as mentioned earlier. An "extended maritime policy" may well reduce the overwhelming influence of Asia and the fragmentation of Europe. This is also based on the overwhelming concentration of ESPON-related flows in Europe's vicinity (e.g. North Africa, Mediterranean and Black Sea areas) (figure 26). Such policies, however, depend on macroscopic factors such as production location and trade routes, as well as on the established trucking industry, but there is room for rethinking the role of sea transport in European economic development beyond sole demand-driven arguments. In particular, the further development of intra-European liner services could strengthen European integration and limit environmental impacts, as well as land-based detours caused by over-concentration at large gateway ports: more than 40% of French exports still shift towards external ports such as Antwerp and the Benelux instead of passing through Le Havre or Marseilles, thereby increasing road traffic and negative environmental impacts.

In many analyses over time and across commodity types, Rotterdam appears as the most central port either in the world or in Europe. We identified a recurrent higher centrality of northern ports in the global network compared with southern ports, which remain bound to more localized traffics despite their comparable performance in terms of total tonnage. Thus, many southern ports handle large tonnages but are not well positioned in the network. In addition, the number of links (K) to other ports does not always reflect upon the true centrality (BC) on the level of the entire network(s).

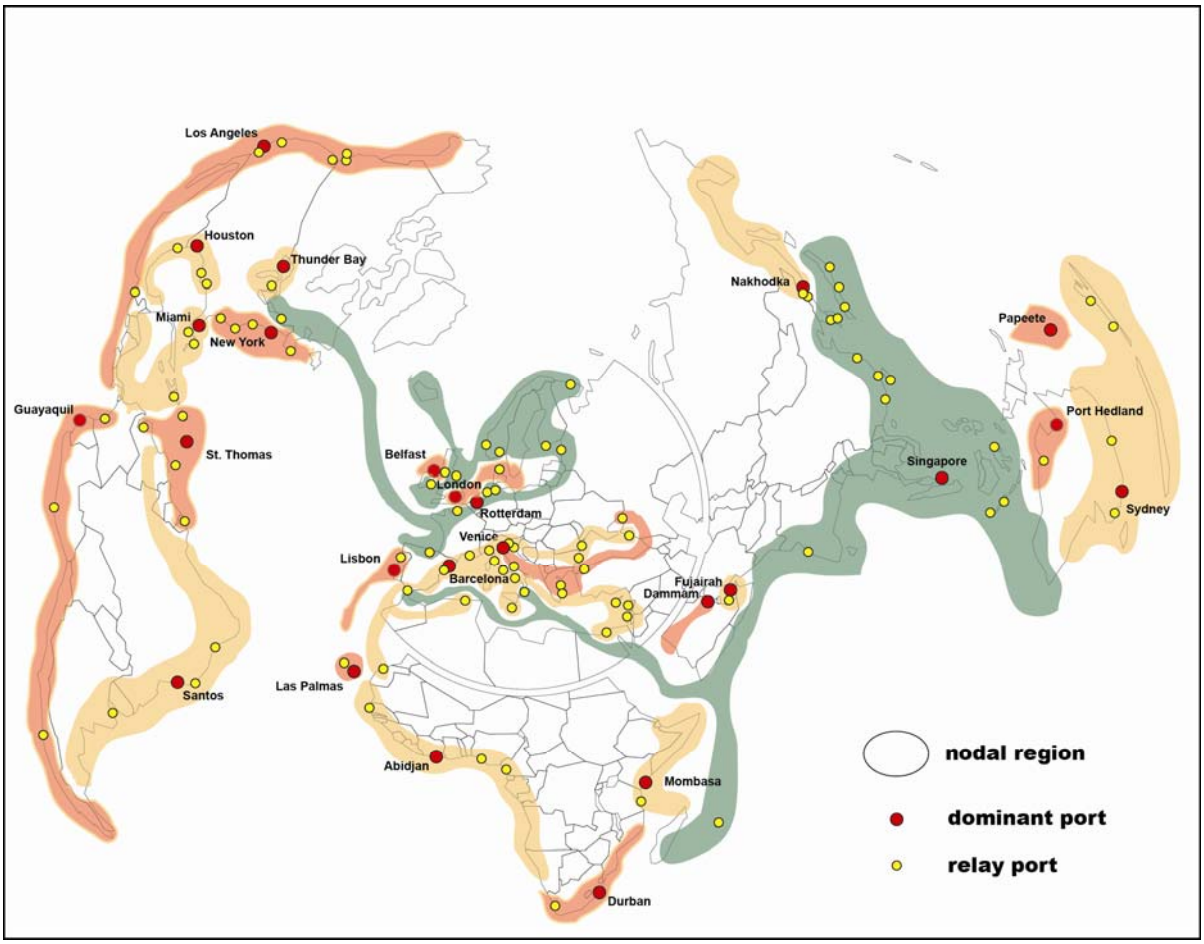


Figure 25. Nodal maritime regions of the world in 2004 (all commodities)

Port traffic specialization and regional socio-economic specialization - The last analysis clearly underlined the functional linkages between types of traffics and types of regional economies in Europe and Japan. Urban regions with higher GDP per capita than the national average, and higher concentration of tertiary activities (notably the financial sector) concentrate more valued, larger, and diversified traffics (i.e. traded vehicles, containers) on average, such as Hamburg, Lisbon, London, Oslo, Stockholm, Genoa, Rome (Civitavecchia), Bremen, Copenhagen, and Piraeus (Athens). This is opposed to a profile of "traditional" and "peripheral" regions where the primary sector (and to a lesser extent the industry and construction sectors) as well as bulk commodities (e.g. agricultural products, minerals, metals) dominate both economy and flows. This is the same trend in Japan, with the main poles of the megalopolis handling higher valued goods and concentrating economic wealth, financial activities, and population.

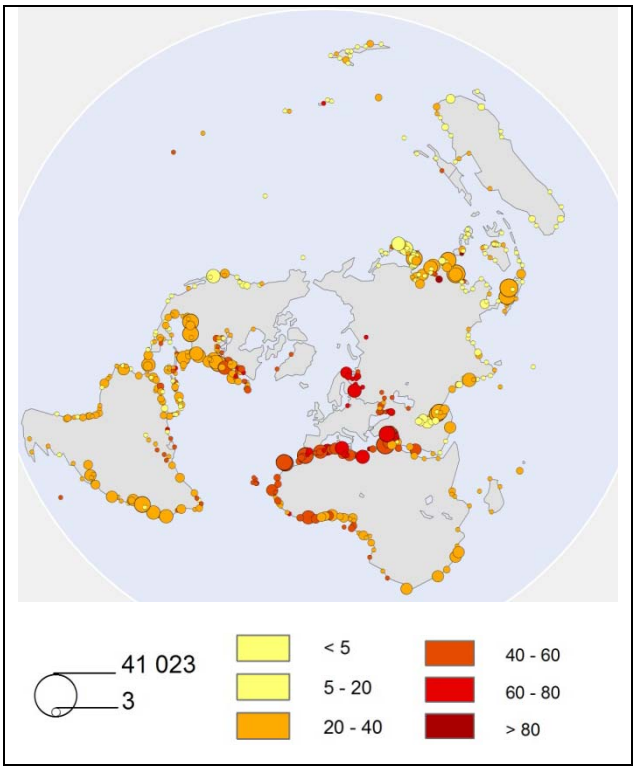


Figure 26. Weight and share of ESPON-related flows at external ports in 2004 (all commodities)

Classification of cities by their functional position in global networks

By integrating the results of the network and flow analyses, it is possible to create a typology of cities which brings together data on the intensity (an index synthesizing connectivity derived from network analysis) and the nature (types of services, types of gateways…) of their connections with the rest of the world. The objective is to classify cities according to the nature of their links in European and global networks.

The classification here is based on six different types of network and hence six indicators. For all types of networks studied, we measure both the total connectivity and also the extra-continental connectivity of each city in order to focus on global cities that really provide gateway functions for the European space. The network data used are as follows:

- firms in advanced producer services (GaWC) for the year 2008;
- air connections for 2008;
- containers connectivity of ports for 2006;
- foreign quotation on stock exchanges for 2010;
- investments in office real estate between cities (average for 2007-2010).

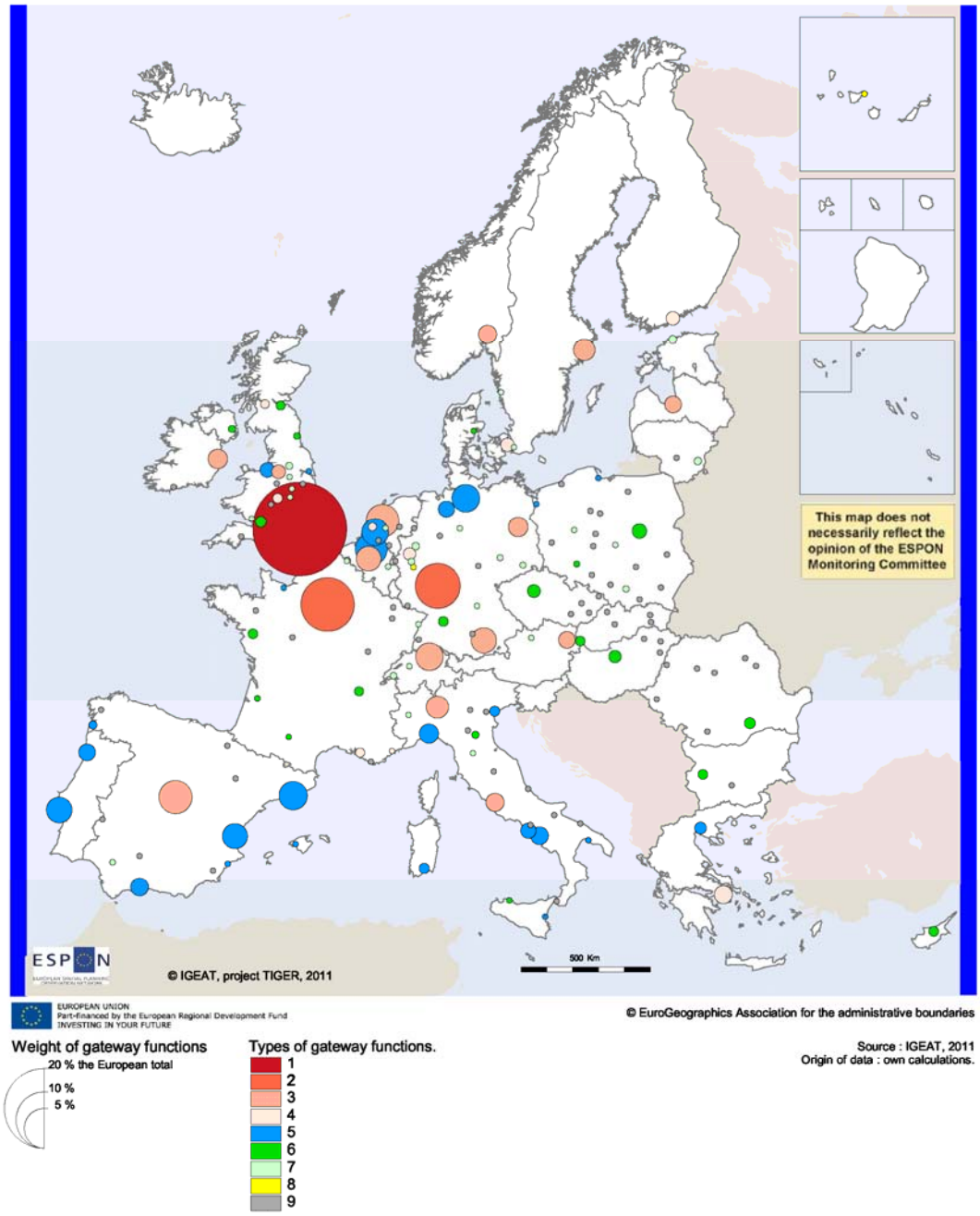
An indicator of city commanding functions - the location of corporate headquarters (2008) – has also been added.

Indicators of total or extra-continental connectivity for each network have been calculated for each city, resulting in five indicators. To make these indicators comparable, the share of each city in the total connections has been calculated. The volume (intensity of connections) and the specialization of cities have then been combined to derive the

city classification. The volume indicates the total importance of the cities in each network and is essential because this highlights the active role of a few cities in each type of network. The specialization of cities complements this measure by highlighting which gateway functions a city is specializing in. Focusing only on indicators of volume would have resulted in a weak classification highlighting urban hierarchical relations because big cities tend to concentrate most global functions. Incorporating only specialization indicators would have resulted in a confusing classification because many medium size cities only have one or two gateway functions. A principal component analysis and then a hierarchical ascendant cluster analysis on the four main components finally produced the classification shown in figure 27, where only extra-European connections have been considered to focus on global gateways.

The first four groups are characterized by cities which have diversified types of gateway function, with high values in many indicators. These groups are represented in a red colour gradient with London which has the highest score, in darkest red (type 1), and London alone accounts for more 20% of all extra-European connections. The next groups can be considered as having diminishing importance yet diversified types of gateway role: type 2 groups Paris and Frankfurt, type 3 consists in a few cities such as Brussels, Amsterdam, Munich, Stockholm, Madrid etc.; finally, type 4 groups cities have much less importance in networks but are still characterized by their diversification in the nature of the gateway functions they are specializing in.

The four next groups, from 5 to 8, are distinguished by a marked specialization in just one type of gateway function. Type 5 groups together rather important cities that are mainly specialized in harbour functions, for example, Hamburg, Rotterdam, Barcelona, Bremen and Antwerp. The sixth type (green) is, in turn, specialised in advanced producer services: it groups together most eastern capital cities characterized by their role of national gateway in advanced producer services. Type 7 and 8 are exclusively specialized in respectively the advanced producer services city network or flight connections. Note that “specializing in” does not mean that cities have a larger absolute value in the indicator. Indeed, types 6 to 8 show small cities that are specialized in one gateway function because it is the only function for which there are nil data as confirmed by the low value in weight of gateway functions for these groups (in the figure 27 table). The final group includes cities for which there is no data.

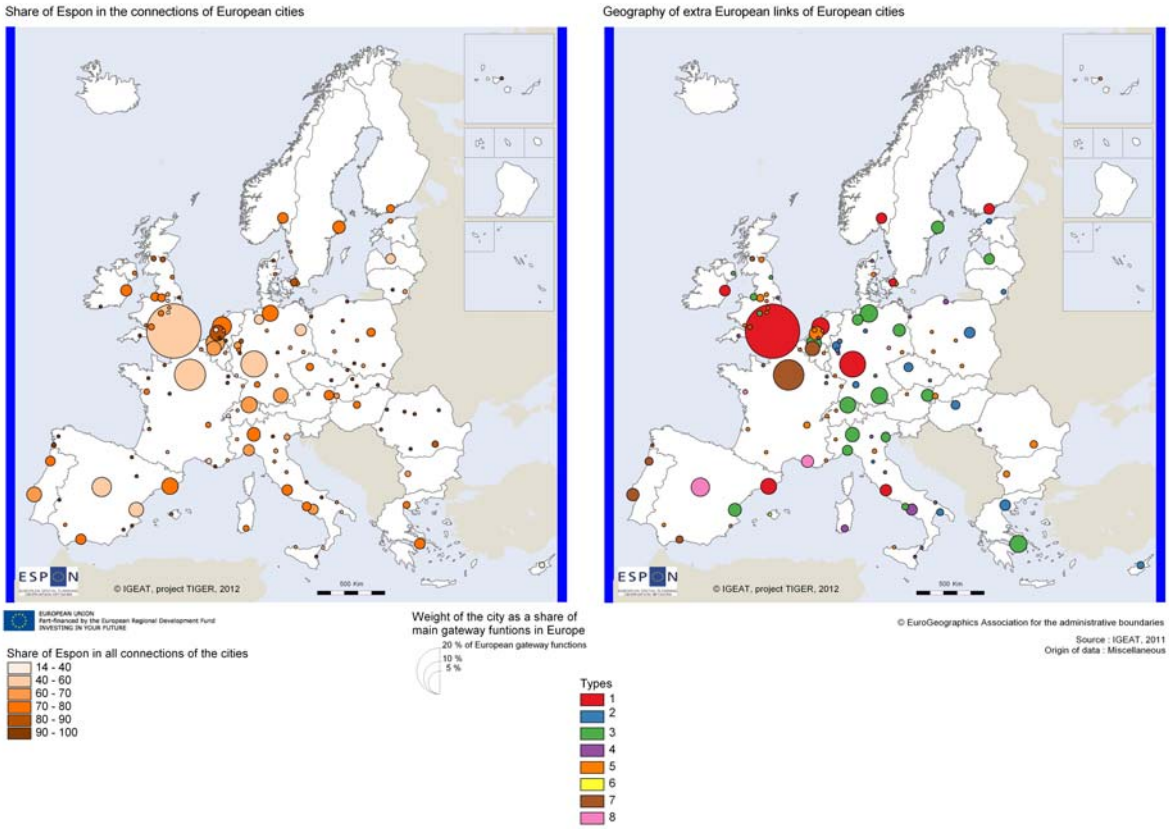


	Number of cities	Weight of gateway functions	Relative specialisation (1=average specialisation)				
		Part of total EU	GaWC	Flight	Ports	Stock exchange	Real estate
Type 1	1	27.63	0.18	1.00	0.12	1.96	1.74
Type 2	2	15.29	0.40	1.87	0.00	1.02	1.72
Type 3	14	23.02	1.58	1.39	0.01	1.13	0.89
Type 4	9	3.74	2.77	1.26	0.22	0.04	0.70
Type 5	25	22.15	0.30	0.09	4.54	0.00	0.07
Type 6	20	5.35	3.97	0.30	0.48	0.03	0.22
Type 7	28	2.82	4.95	0.03	0.02	0.00	0.00
Type 8	2	0.01	0.00	5.00	0.00	0.00	0.00
Type 9	70	0.00	null	null	null	null	null

Note: Cities of the neighbourhood regions (former USSR, Northern Africa, Western Balkans and Turkey) are also excluded.

Figure 27. Classification of cities according to the nature of their links with non European cities

Finally, we classify cities according to the geography of their functional links with the rest of the world in the five networks examined in this chapter: advanced services, stock exchanges, real estate investment flows, maritime links and air connections (figure 28).
On the left, we highlight cities that can be described as “uneuropean” compared to the others. Not surprisingly, global cities are “less European” with around half of their links being with non European cities. Amsterdam is distinguished from other global cities by its higher share of links with other European cities in the networks considered here. On the right, we classify cities according to the regions they are linked to in the various networks, excluding links with other European cities. The red type is the most “global” in its geography, with more intense links with North American cities. In contrast, other major cities shown in brown also have worldwide relations but most specifically with Africa. The pink type mainly relates to Madrid, the main European gateway for Latin America. The blue type is specific to the former USSR and the Middle East, while the green type shows few specific links with any part of the world.



		Share of the world regions in the links of the different types																		
	Number of cities	Former USSR	Western Balkans & Turkey	Central Asia	SE mediterranea	Middle East	Central Africa	Eastern Africa	Western Africa	Southern Africa	Northern America	Central America & Carraibian	Southern America	Eastern Asia	Southern Asia	South-East Asia	Western Pacifica	South-Western Pacifica	Oceania
Type 1	9	18	5	0	7	3	0	1	1	1	32	5	2	8	3	2	3	6	2
Type 2	16	22	29	1	7	3	0	1	1	1	15	4	3	4	3	1	2	2	2
Type 3	19	12	10	1	11	6	0	1	1	1	29	5	3	4	3	1	3	5	5
Type 4	19	34	28	0	29	0	0	0	1	0	1	1	6	0	0	0	0	0	0
Type 5	37	8	6	0	20	3	0	1	1	2	25	9	4	5	5	1	3	3	3
Type 6	1	43	0	0	4	0	0	0	0	0	0	0	0	26	13	0	4	9	0
Type 7	8	3	4	0	13	3	2	1	12	8	29	4	8	4	2	0	2	3	2
Type 8	4	2	3	0	18	2	0	6	1	1	16	21	13	3	2	1	2	2	8
Moyenne	113	16	13	0	16	3	0	1	2	2	20	6	4	4	3	1	2	3	3

Figure 28. Classification of cities according to the geography of their global links

Global cities and competitiveness

The results from the analyses described in this chapter have critical importance for longstanding policies to strengthen the economic position of Europe in a global context by setting out to make it "... the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth …" the central objective of the Lisbon agenda (2000) which is taken forward in Europe 2020 strategy. So what conclusions can be drawn about the implications of the flow-place interactions studied for the European territory in a global context?

It is clear that within the European territory there is a marked specialization between cities, which have different roles and functions. However, we highlight the scale rather than functional specialization of cities (WP2). All global functions examined here are present in European major cities, and are correlated between them. This is because positionality in advanced services networks and global financial functions relies notably on air connectivity and real estate investments that provide the necessary infrastructures for global cities. Only port functions are not quite related to the other global functions, being mainly present in specialized cities such as Rotterdam. Just one city, London, is the dominant global gateway in Europe for flows in the important networks studied here. London's connectivities worldwide make it appear "uneuropean" in our city classification and typology however its global linkages are of vital importance for Europe given world geo-political changes which are leading to the global shift in network connectivity. Furthermore, we have seen that London is highly interconnected with other European gateway cities so all that makes it seem uneuropean is its very high overall level of external linkages. Behind London, we find a limited number of cities with high volume of global functions (Paris, Amsterdam, Zurich, Milano, Frankfurt, Brussels, Madrid). We then find a number of national capital cities where all functions are present though with lower volume and geographical reach. Besides this scale specialization of intensively interconnected European cities, we also highlight their geographical specialization: global cities have by nature the most global geographical profile, while some major cities are gateways to different parts of the world. Both scale and geographical specialization of European cities highlight their importance for the European economy as a whole allowing connections between European territories and the global economy.

The London working paper (WP6) shows the importance of taking into account the complementary functional network relations between European cities of different sizes and at different geographical scales. Policy to promote territorial cohesion needs to take the network specializations and complementarities of cities described in this chapter into account and this necessitates the creation of nuanced spatial policies which do not simply focus on territorial rebalancing of urban population and functional distribution. The global analysis of cities in networks demonstrates that not all large cities are equally globally well connected but high network connectivity for specialized global functions such as advanced business services and associated international airport gateway functions is necessarily associated with major agglomeration.

However, having examined the relation between cities' connectivity and their economic performances (WP4), we found no impact of cities' connectivity in advanced producer services or in other functions. The relation between better connectivity and city growth is not as automatic as sometimes assumed it is to be. This has important implications in policy terms. They mean that while global networks are certainly important for a few global cities, we don't know the exact impact of improving connectivity for the others. For example, London has been able to concentrate more gateway functions and to have higher growth. But path dependence and this capacity to capture higher share of added value created is specific to some global cities like London and New York. It does not work this way for all the other European and US cities for which we do not know how their position in networks impacts their economic performances. Hence, policies that focus on

improving cities position in global networks are highly problematic because both the difficulty to impact on this structural feature (path dependence again) and the uncertain impact it will have on economic competitiveness for the city as a whole. That being said, these results do neither demonstrate the unimportance of cities' connectivity as a source of economic performances for national and continental developed economies, as illustrated in analyses above.

Chapter 3. European territories in global flows: synthesis, policy implications and policy options

Globalization has been defined as the integration between economies across the world that result in the growth of flows and increasing interdependencies. We briefly characterize the nature of these flows which have been described in more depth in chapter 1 on the key drivers of globalization and in the scientific working papers.

First, the shrinking of distance through the diminishing costs of transportation for goods and people has been critical to processes of globalization. These processes remain deeply integrated in large infrastructures located in cities, notably in major gateways, which concentrate hub functions in maritime and air networks. Although this has been a continuous trend since the industrial revolution, it has been a specific condition for the increasing volumes of flows of different kinds across the world in recent decades. The so-called information and communication technologies have also been considered central in the current era of globalization (Castells, 1996; Veltz, 1996). For many authors, their development has contributed to financial globalization and the emergence of more horizontal corporate management structures supporting more transnational and cooperative business networks. Second, though we do not observe a major break in the trends of the recent decades compared to the post-war period, flows of goods and services reached unprecedented levels up until the recent financial crisis when trade in goods was around 28% of world GDP and trade in services around 7%, far beyond the peak of the so-called "first wave" of globalization in 1913. Third, though flows of knowledge are not easy to measure and are disseminated through very different channels (the movement of qualified people, technological transfer, scientific collaborations etc.), they are often considered decisive in stimulating economic growth. The capacity to generate knowledge, or to absorb knowledge to generate innovation, are considered vitally important factors of competitiveness. Through different indicators, these flows have been shown to increase considerably in the last decade, even though the EU still lags behind NAFTA and Japan in many areas of knowledge (WP11). Fourth, nor are migratory flows a specific feature of the recent wave of globalization in terms of their intensity. However, some decisive changes associated with globalization processes can be identified: though proximity still matters, the geographical reach of human flows has increased in recent decades; in addition to classical migrations from poor to rich countries, there has been growth in the mobility of qualified labour at a global level, as indicated by the increasing mobility of students and highly qualified labour embedded in global city networks. Fifth and finally, the most distinctive feature of the recent wave of globalization lies in the importance of financial flows which have exploded as a result of liberalization, and the emergence of global financial actors able to relocate capital to the most profitable lines of business almost instantaneously. Hence, the increase of FDI at a global level has been accompanied by the increasing mobility of capital on financial markets, notably stock exchanges.

Firms and global financial actors have therefore been playing a major role in globalization processes. Major firms act on a global scale through the integration of global production

networks. This means that the production of goods and services is controlled by major economic actors that have global strategies for the location of functions within integrated value chains. The resultant investments across the world, give rise to increasing flows of goods, people and knowledge within major firms. In brief, the increasing flows across the world do not only result in increasing exchanges between economies endowed with different types of resources but are mainly embedded in global value chains controlled and dominated by major economic actors who are deeply connected within and between them.

Finally, on a political level, the nation state remains a decisive actor, the only one that really seems able to regulate the economy on a large scale. Of course, its regulatory power has been diminished by the "bordering" of its regulatory power compared to the "debordering" strategies of economic actors. As underlined, this is also a result of political decisions associated with liberalization taken notably by the most developed nation states in the three last decades. Moreover, the power of states is also hampered by a re-scaling process of policy toward supra-national forms of decision making at global/macro-regional levels and at regional/local levels.

When the focus is on territorial development, the major question raised is how these flows as well as the strategies of public and private actors, are spatially organized around the world. We distinguish two functional levels at least to consider the place of Europe and European territories in the world: *cities* and *macro-regions*.

3.1 The city as a functional level of the global economy

In the global economy, (large) cities play a major role by connecting actors through complex global networks within and between cities (Rozenblatt, 2010) and by playing an interface role between the global and regional/national/continental economies (Friedmann & Wolff, 1982). Increasing flows across the world result in the growing importance of cities that concentrate gateway functions, notably benefiting from agglomeration effects in various domains. Thus the movement of goods and people is highly dependent on major infrastructures located in gateways. We demonstrate this process in maritime as well as air connections. Concentration in major gateways does not only result from the importance of fixed capital but also from the "size effect" which allows economic actors, such as air companies, to have the necessary flexibility to adapt to unstable market conditions.
Moreover, global advanced business (producer) services firms with offices worldwide, operate through cities which are the vital locations for concentrated international sources of talented labour and knowledge crucial for innovation (Taylor *et al.,* 2003; Pain 2008). As Europe's leading global city (working paper 6; chapter 2.2.2), London has developed a very deep business infrastructure resulting from the agglomeration of multiple global service providers who require close proximity to engage in cooperative interrelationships and tacit knowledge exchange upon which competition in global markets is dependent. The capacity of these clustered tertiary services to add value to trade in production sectors with diminishing returns in the world economy gives Europe's global city gateways a specialized function recognized in European policy (working paper 6; Pain 2011). Europe's global city office real estate provides the physical infrastructure through which such firms operate in cross-border networks which, as we have shown, include a great many less "global" cities than London which have nevertheless become more functionally well connected in the past decade, especially in the Pacific Asia region but also in Eastern Europe. As a high-value financial asset held and traded by major international investors (Lizieri, 2009) we have also found that real estate transactions have "locked" value to London in the financial crisis reflecting market confidence in its stability as a world hub for major global service economy functions. Finally, cities remain the main attractive poles for labour at both ends of the social spectrum. At the upper end, qualified labour is attracted by major cities for career advancement opportunities,

and a non negligible part of these movements (labour churn) is made within global firms, notably in the advanced business services discussed (Beaverstock, 2004), but also at the lower end, cities provide jobs for unqualified labour and moreover provide the necessary networks for migrants' strategies of survival. As a result, migrations toward cities often reinforce their social polarization however economic mobility associated with city mobilities are difficult to capture quantitatively.

The functional and gateway role of cities in the global economy raises a number of issues which have important political implications:

Cities and the regional scale

The functional role of cities first raises the issue of the role of regions with regard to two major ideas:
- cities are the functional entities through which economy operates and may be the motor of regional and national growth;
- regions are normative powers and the basic divisions for territorial policies in Europe and do not fit the functional areas of major cities.

If cities must now be recognised as the key networked nodes for the functioning of the world economy where does this leave the regional scale which has been the main focus of Regional European policy? This question was central to the 2003-06 INTERREG IIIB Polynet*: Sustainable Management of European Polycentric Mega-City Regions* study (Hall and Pain 2006) which examined a global city expansion process first identified by Scott (2001) that is extending beyond metropolitan administrative boundaries in eight functionally interconnected areas of North West Europe. Such functional regions are becoming the world's dominant locations for human population and economic production, especially in rapidly urbanizing and developing economies such China (Pain, 2011). Main conclusions were that regional policy scales did not fit functional spaces in any of the study areas which were found to have a democratic deficit. Regions were found to reflect normative power structures as opposed to emergent spaces that require joined-up governance. A further key conclusion for policy was that, even if a more balanced spatial distribution of population and employment can be achieved, the gateway role of Europe's global cities remains functionally specialized in relation to the international scale. Thus such cities are the motor of regional and national growth but this does not counter the development of complementary roles of other cities at sub-national scales. Furthermore, in the present *Tiger* study it has been found that after Paris, London's top advanced business services links in the EU are with Milan, Madrid, Brussels, Frankfurt, Warsaw, Amsterdam and Zurich and as far as office investment deals are concerned, seven out of the top ten cities benefiting from flows *out of* London are European cities while only four top European cities are providing *flows into* London. These findings demonstrate that the London agglomeration process cannot accurately be described as *un*European.

The ESPON FOCI project also studied the relationship and linkages between large metropolitan areas and their hinterland. Results were diverse, and highly dependent on national contexts. Generally, however, similarity of economic structure and labour markets, but also intra-regional accessibility seem to favour co-evolution of the two spaces. The project also highlights the very diverse, and often limited nature of inter-urban (or "polycentric") cooperations. Generally, only very concrete and down-to-earth cooperation, notably across borders, seems to meet with a certain level of success, while many factors, such as differences and limits in competencies, distrust, competition and imbalance in weight often hinder the evolution of such links.

Cities do not only compete, they also cooperate

On the one hand, city governments compete to attract labour, events, consumers and investments. Hence cities have been more and more influenced by "entrepreneurialism" aiming at providing the best possible environment for business (OECD, 2007; for a critical approach see Harvey, 1989; Malecki, 2004; Knox and Pain 2010). This is highly related to the re-scaling process of governance from the state toward sub- and supra-national levels. However, because of limited competences in economic regulations, governments of cities and regions opt for providing the best environment for business while at the same time trying to deal with the possible social negative impacts of these evolutions (Van Hamme, Strale, 2011).

On the other hand, as already discussed, major cities *as a process*, are specialized in various functions and have complementary roles in their European and global networks (see chapter 2.2.2 and point 4 below). The importance of cooperation and complementarities between city economies has been highlighted in this project by the diversity of gateway functions of urban areas in Europe (see chapter 2.2.2, WPs 2, 3, 9, 15, 17). This diversity is functional but also geographical. As far as the functional specialization of cities is concerned, we observe a strong correlation between the different types of functions: the cities' role in advanced business services, as commanding centre for firms, as major hub for air connections or as nodes for real estate investments are strongly correlated with each other. However, in Europe, port urban areas are distinguished as hubs in the transportation of goods but seem to be very specialized in this type of function. Also, some medium size cities still remain the commanding centres for large firms without playing an important role in the wider networks related to the activities of those firms. Overall, the result is a complex urban system in which cities seem to have intermediary roles at different levels (global, European, national, regional), rather than being specialized in one specific function (WP2, Figure 27). This might be called a scale – instead of a functional – specialization of European cities. Of course, this conclusion has to be qualified since more refined analyses in advanced business services show that below a certain size, cities are more specialized in certain areas than others. This is particularly evident with regard to sectoral specialization in morphologically polycentric city regions whereas, as a functionally polycentric urban region, the specialization between South East England centres proximate to London seems to be more functional in nature, reflecting scale specialization. In addition to this scale specialization of cities, strongly linked to their position in the European urban system, we certainly observe a geographical specialization of cities in their gateway functions. Of course the most important cities have the more global geographical profile but still show specialization (figure 28): London is the most global European city in the geographical scope of its networks but still shows specializations toward Northern America, the Middle East and Eastern Asia; Paris is a global city, nevertheless showing specific linkages with Africa; Madrid is the European gateway for Latin America in nearly all types of networks we studied; Nicosie plays a gateway role with both former USSR and the Middle East. Here again, the lower the size of gateway functions, the most exclusive its geographical specialization in non European links.

As a result of these interrelated processes, "globalization intensifies socio-economic dependencies of territories" (EC, 2011b), and we may add that these interdependencies play at different scales between European cities and territories as well as between European cities and global city networks. However, these strong interdependencies go hand in hand with a persistent division of labour, notably marked by the unequal geographical distribution of functions within value chains (Hopkins & Wallerstein, 1986; Gereffi & Korzeniewicz 1994; Gereffi & Memedovic, 2003). At the top level of these value chains, global cities benefit from cumulative processes of accumulation and are able to catch value because of the strategic positions of the actors embedded in these places. Such a division of labour has been highlighted in this report by the analysis of regional trade as well as the specific studies on clothing and automotive value chains (see chapter 2.2.1). At the bottom of the value chain, economic actors embedded in regions endowed

with poor resources (unqualified labour, peripheral position etc.) do not have the capacity to move up in the value chain and hence catch a larger part of the added value.

How city size, connectivity and functional specialization impact on growth?

The issue of cities and competitiveness is a very complex one, which has relevance at two different scales: what is the relation between competitiveness (in an economic sense), size and connectivity at the level of cities; and how does the functional role of major gateway cities impact on the growth of Europe as a whole? We discuss both questions separately though they are of course strongly linked.

At the city scale, the metropolitanization hypothesis (Sassen, 2001; Castells, 1996; Beaverstock *et al*., 2000; Scott 2001; Hall and Pain 2006) has played a central role in the debate on the role of (global) cities and their urban regions in the world economy as well as being key to understanding how cities contribute to competitiveness. On the competitiveness issue, the metropolitanization hypothesis argues that in the context of globalization, (global) cities have a decisive competitive advantage (for a full discussion see Lennert *et al.,* FOCI, 2010). However, going back to Sassen, metropolitanization should not necessarily be understood as global cities performing better than the others but rather as concentrating more and more those strategic functions related to advanced producer (business) services. Another main issue is the size and/or level of connectivity a city should reach to benefit from agglomeration effects and boost its economic performances. Initially, Sassen's view only related to the top few global cities. Looking at Europe during the last two decades, we certainly observe the increasing role of London as the most important global gateway for Europe. In this case, the concentration of strategic functions and the global connectivity of London certainly boost its economic performance and that of the UK. However, the processes described seem to go beyond the small circle of global cities (see also Pain 2011). Evidence from previous studies seems to demonstrate not only the ability of global cities but also first national cities to benefit from these processes, in the European context at least. In this context, the re-concentration of activities and strategic functions does not only occur at a global scale but also at a national scale, even within the integrated European market. This has certainly proved true during the 1990s, while this process has seemed to slow down after 2001. Indeed, few empirical studies have actually demonstrated the existence of a re-concentration of activities to the benefit of large cities (for a reflection on this see DG Regio, 2009; Lennert *et al*., 2010; OECD, 2007b). Albeit we have found evidence of increasing connectivity in advanced business services networks, this process still has an unequal geography. The precise reasons behind the unequal and geographically uneven strength of re-concentration are likely to reflect specific development paths of cities across time and space. Moreover, in-depth analyses have highlighted the complex links between cities' economic growth and connectivity (WP 4). On the one hand, we demonstrate the relation between size, connectivity and GDP per inhabitant of European cities. This is in no doubt a long term consequence of agglomeration effects but does not explain the underlying direction of causality between the economic wealth of cities and their connectivity. On the other hand, we found no significant impact of cities' connectivity (and size) on their economic performances in the year 2000.

This has important political implications. Though some cities have clearly benefited from their position in networks at European and global levels, there seems to be no direct correlation between city connectivity and competitiveness (when measured by GDP) in the recent period. The emphasis of some local governments on increasing their network position in different areas therefore not only raises the issue of their capacity to promote connectivity in such networks but also uncertainty about the direct impact on territorial economic performance.

At the EU/ESPON scale, it is argued that "Metropolitan areas play an important role in sustaining the EU's global competitiveness" (EC, 2011b, pp. 16-19). The functional role of (major) cities in the European and global economy has been widely illustrated in this project. This raises the question whether the territorial structure of Europe, and in particular the concentration of urban functions, impact on its economic competitiveness. The idea is that in the context of globalization, the wealth of global/major cities is of decisive importance for Europe as a whole, since these cities are the main gateways with the global economy. In a way, the hypothesis is that European wealth now depends on the connectivity and economic wealth of major European cities.

Though the importance of major cities for Europe is in no doubt, based on our findings, there is a lack of evidence to show that further strengthening of major gateways would enhance the competitiveness of the EU territory as a whole. We believe it is not possible to answer such a direct question in an unambiguous way. The only possible comparative cases are Northern America and perhaps Japan, because of their similar level of development but, as we have discovered, scale distinctions make such direct comparisons dangerous. There are many different parameters other than urban structures and hierarchies, which are likely to explain relative territorial economic performances and these are of major importance for territorial cohesion (see WP5). Finally, the way policy could strengthen European gateways is another difficult question. This is because agglomeration effects at global and European scales to the benefit of some cities are largely the result of decisions of economic actors in a very broad sense and public decisions have probably poor impacts on this, other than through global economic regulation and investment in the upgrading of transportation infrastructures for example.

3.2 Macro-regions as a functional intermediate level between the global and national/regional levels

The process of regionalization has been widely illustrated in this project. Hence, globalization should not be understood as undirected interconnections of all territories across the world. Global flows are first spatially structured by the persistence of unequal relations between core regions, which still benefit from cumulative processes of accumulation, and peripheral regions (Myrdal, 1957; Krugman, 1991; Wallerstein, 1974; Grasland, Van Hamme, 2010; Van Hamme, Pion, 2012). Global flows are also deeply structured by intense interrelations within macro-regions. In all types of flows studied, distance plays an essential role in the intensity of these relations: trade, migrations, flows of students or air connections (see chapter 2.1, WP7, WP13, WP 14, WP17, WP18). This results in an intermediate level of organization notably from the economic point of view: we call these **macro-regions**. Nevertheless, the importance of distance in structuring human and economic flows should not be understood as a pure geographical distance effect as this also relates to strong historical links, that public as well as private actors have established, and that distance helps to keep alive. Moreover, the process of regionalization is also a policy-driven process through what might be called "regionalism", or politically driven integration at a macro-regional scale (WP 19). Most of these regional agreements have mainly focused on economic relations, and especially on free trade agreements. Hence, the intensity of economic relations between countries belonging to the same macro-region has been strongly boosted by political decisions in terms of the free circulation of goods and capital. By far, the European Union appears as the most advanced territorial assemblage in this process of *regionalism*, notably because its economic integration has been accompanied by a unique process of political integration.

In contrast to fears expressed in the 1990s (Krugman, 1991; Bhagwati, 1992; Frankel *et al*., 1995), the dual process of regionalism and regionalization has not resulted in a

slowing down of multilateral relations related to globalization (Anselin & O'Loughlin, 1996; Poon, 1997; Poon *et al.*, 2000; WP19). Rather, it has been shown that the growing intensity of relations at the global and macro-regional levels are simultaneous processes: between 1986 and 2007, the internal trade of the EU increased from 27% to 42% of total GDP, while external trade developed from 15% to 21% of total EU GDP (chapter 1; WP18). This development is so pronounced that regional integration is now considered by world institutions as a necessary step in the direction of multilateral free trade (World Bank, 2009). That being said, big economic ensemblages of the EU and NAFTA can still be considered as relatively closed economies, with a ratio between trade and GDP of respectively 20.6 and 14.6%. As a consequence, large developed economies mainly rely on their own markets and producers, even in integrated global sectors such as the automotive industries (WP8c).

If we turn now to the functional relations of Europe, it has been shown that they largely go beyond EU borders to include European Union non members (Iceland, Norway, Switzerland, Western Balkans) but also the Eastern, South-Eastern and Southern "neighbourhood", respectively former USSR Republics, Turkey and the near-East, and Northern Africa. All these areas have intense functional relations with the EU in terms of human flows, FDI, trade of goods and services, or air connections. However, these relations are not balanced and can be described as core/periphery relations: while core European countries mainly sell services and goods with medium and high technological content, they buy raw materials (Russia, Algeria, Libya etc.), notably energy, and low added value manufacturing goods (Morocco, Tunisia, Egypt, Turkey); human flows, notably students and qualified labour, are attracted toward West European countries, still perceived as lands of opportunities, while touristic flows take the reverse direction. As a result, Europe appears more important to its neighbourhoods than the reverse. Overall, adopting a functional approach, the borders of the EU may generally be considered as fuzzy, in the way that the influence of Europe beyond its borders largely decreases with distance, but they are also asymmetrical in the way that human and economic flows across these borders are unbalanced (Grasland C., Van Hamme G., Eurobradmap, 2011).

Yet, because the European neighbourhood is *de facto* part of the functional Europe, the EU should (and does) pay attention to what happens there. In the EU2020 strategy, neighbourhood is only briefly mentioned in a rather "paternalistic" way: "The Europe 2020 strategy is not only relevant inside the EU, it can also offer considerable potential to candidate countries and our neighbourhood and better help anchor their own reform efforts. Expanding the area where EU rules are applied, will create new opportunities for both the EU and its neighbours" (EC, 2010a, p.23). It is also true that the territories for which Europe matters are not necessarily those that matter for Europe (see chapter 2.1). The influence of Europe certainly goes beyond the EU borders yet at the same time while the neighbourhood regions are important, they are not the main partners of the EU in its economic relations. As a result, in its relations with the neighbourhood, the EU focuses on strategic issues such as energy, security and immigration (WP19). Also, the EU tries to deepen its economic relations by signing free trade agreements with neighbouring countries, and more generally, as mentioned in the EU 2020 strategy, by trying to apply EU rules in order to create "new opportunities for both the EU and its neighbours". However, this is not part of a full development strategy for the neighbourhood though neighbouring countries do receive large shares of EU development aid (WP18).

If we turn to world territories that matter for Europe, EU 2020 strategy states that "A part of the growth that Europe needs to generate over the next decade will need to come from the emerging economies as their middle classes develop and import goods and services in which the European Union has a comparative advantage. As the biggest trading bloc in the world, the EU prospers by being open to the world and paying close attention to what other developed or emerging economies are doing to anticipate or adapt to future trends." (EC, 2010a, p.22). In this report, we have shown that the US – and more generally NAFTA – is the main partner of the EU in nearly all types of relations:

trade of goods and services, exchanges of qualified labour including student, or FDI. Also, the US plays a major role in extra-European networks of European cities, notably in advanced business services. While much less important than the US, Russia, China and Japan are essential economic partners of the EU in terms of trade, knowledge exchanges, investments and/or networking in advanced services. However, the relatively weak position and declining influence of the EU as a whole in the so-called emerging economies (Brazil, India, China) might be considered a weakness in attempts to benefit from the development of emerging economies which are the major new world arenas for globalization.

In this context, Sub-Saharan Africa appears to be greatly ignored by the EU being considered neither part of the neighbourhood nor a major partner of the EU. Certainly, Sub-Saharan Africa has become more and more marginal in the world economy even though some signs of recovery can be identified in the last decade. Moreover, Europe's influence in this part of the world has been shrinking as illustrated by trade and other types of economic relations (chapter 2.2.2., WP7) while in the meantime the US and China have increased their relations with many parts of Africa, and South Africa has been able to polarize a large area in the southern part of Africa. However, for this increasingly disputed area of the world, with such a dramatic growth of population, Europe remains a major partner

Finally, our observations have shown the extent to which external policies of the European Union must address a diversity of interests among the member states. In particular, studies in the field of the sociology of organizations have highlighted internal divisions and conflicts between different components of the European Commission as well as between European institutions and member states. Such studies have taken the view that understanding internal complexity is necessary to comprehend the position of the institutions of the EU and global polity. Since the 1990s, anthropologists have focused more on power relations between the European Commission and its members (Abelès, Bellier, & Mac Donald, 1993; Mény, Muller, & Quermonne, 1995). As a matter of fact, member states and territories have different functional relations as underlined in chapter 2.2, highlighting the differentiated intensity in the trade of services (figure 16) and goods (figure 19) and also in the daily relations illustrated by air connections (WP17) or the geography of the network relations European cities have with the rest of the world (figure 28). To take an example, when it comes to neighbourhood policy, a clear asymmetry can be noticed in the perception of the Southern and Eastern neighbourhood of the EU, well illustrated by the debate between EU member states when France proposed to launch a "Union for the Mediterranean" (Eurobroadmap, 2012, forthcoming). On the one hand, Germany refused the first project where only countries located on the Mediterranean coast were invited to participate, considering that North European countries are also strongly involved in Northern Africa by economic or human flows. On the other hand, new member states of Eastern Europe claimed that a focus on the Southern neighbourhood should not be a priority and that the European Union should focus on the Eastern dimension, toward countries such as the Ukraine. The foreign minister of Poland, R. Sikorsky, declared for example that "*In Poland we distinguish between the EU's southern and eastern neighbours: in the south we have neighbours of Europe, in the east we have European neighbours of the EU that-if they fulfil the criteria-will one day be able to apply for membership*".

3.3 Towards a synthesis of global relations of the EU and European territories

In this section, we synthesize major facts and figures concerning Europe's relations to the world and its impact on territorial development (figures 29 and 30, table 7).

In figure 29, we distinguish between several types of territories regarding their vulnerability to globalization or their capacity to grasp opportunities from globalization. We must underline that this map is not the result of pure quantitative analyses but builds on the many quantitative analyses in the project. It is thus a qualitative typology of European regions. It is also important to highlight that vulnerability to global financial and economic shocks have not been integrated here though the exercise helps to explain huge differences between the economic growth of countries and regions after 2007, as illustrated for example by the contrast between Poland and the Baltic countries. We believe that the ways in which crises propagate are to a great extent unpredictable and hence this project has not been able to inform this issue. We thus focus here on structural and productive features of European territories in the global economy.

We propose a brief description of the major stereotypes:

1. *Gateway cities (figure 30)*
Global and national gateways are deeply involved in various types of global and European networks and thus generate what can be called nodal advantages that reflect their strategic positions in the service and financial economy. In particular, in Eastern Europe, capital cities have benefited from higher growth rates notably because of their increasing capacity to participate in the European and global service economy. However this has resulted in territorial polarization within central and eastern countries despite the good economic performance of most regions. In comparison, in the dense and populated area of Europe – from England to Central Italy – the growth of major gateway cities has been less evident in the last ten years. London and Paris have retained their strategic positions in global economic and financial networks and London remains the main global gateway for Europe but the growth in Eastern Europe has been spurred by political economy change, albeit this has mainly been occurring in the major capital cities, at least for the present.

2. *Manufacturing territories standing high in the international division of labour*
Because of technological know-how and their capacity to maintain a position at the top of value chains, these territories have been and may benefit further from globalization, notably from emerging markets requiring huge transfers of industrial equipment, and technologies. They are nevertheless very sensitive to global demand as illustrated by the recent global crisis, which has resulted for example in a dramatic drop of sales in the automotive and machine tool industries. We may distinguish between two types of territory within this group:

- territories with large enterprises, while not lacking small and medium enterprises highly dependent on major firms (Southern Germany, Sweden), seem stronger because of their capacity to reach the necessary threshold for research and development;
- dynamic territories characterized by well interconnected small and medium enterprises (Central North Italy, Western Flanders etc.) seem more vulnerable despite their permanent rise in the value chain: on the one hand, off shoring processes have been intense in the low added value functions; on the other hand, these enterprises do not seem big enough for large investments in R&D.

3. *Manufacturing "in between" territories*
These territories have been dynamic by attracting huge investments in medium technological segments of value chains. They include some regions of northern Spain and some areas in Portugal, as well as Central European regions. These regions have benefited - at different recent historical periods – from low labour costs though with medium/high qualified labour, proximity to European markets, and embeddedness in continental value chains, attracting major corporate investments. The Mediterranean regions of this group appear now as quite fragile due to their higher labour costs compared to Central European countries while not being able to move up in the value chain and compete on the higher technological level where agglomeration economies

benefit the most developed areas of Europe. They also depend on large non-national corporate firms which may further affect their vulnerability. The situation faced by some Spanish or Portuguese areas may affect Central European economies in the near future, due to increasing competition in these medium segments from both Eastern Asia and neighbour countries such as Turkey. Moreover, these countries may have exhausted growth resulting from catching up processes in sectors like agriculture, trade etc.

4. *Manufacturing regions in low manufacturing sectors and functions*
We exclude from this group all "entrepreneurial territories" that have been able to highly diversify and move up in the value chains on the base of endogenous development (type 2b). We group here together regions located in southern and Eastern Europe mostly located in the Balkans. These territories rely on small and medium firms at the bottom of value chain in labour intensive segments of sectors like clothing but also in some services like software. They are prevented from rising in the value chain because of the intense competitive pressure from eastern Asia, or the European neighbourhood. In Eastern Europe, they have been able to maintain competitiveness because of their position in integrated European value chains, the proximity to the European markets, both explaining greater flexibility. However, as proved by the deep crisis in Northern Portugal, the increasing competition in these functions and the difficulties of rising in the value chain strongly impact on these regions. Being "locked" in subcontracting and thus having limited access to resources, knowledge and freedom of decision-making, CEE companies of many branches have mostly instead upgraded their products and processes. They seem to have very limited ability to change their functions within particular chains. This might result in the deep crisis faced by Northern Portugal when labour cost reaches a certain level.

5. "*Non globalized" territories*
Many territories have weak economic relations outside Europe. We consider as non-globalized those regions that have weak relations with the rest of the world but at the same face weak global competition because of their specialization in the basic service economies. This notably concerns the Mediterranean regions, of Spain, Portugal, Southern Italy or Greece. We should nevertheless distinguish between the dynamic tourist areas and the others. The former are indeed more subject to global constraints. Of course, we must first underline that they almost exclusively rely on European visitors. However, they attract visitors or residents from "globalized" European territories. And also, they face competition from neighbour Mediterranean touristic territories such as Turkey, Morocco or Egypt. In other territories that are much less dynamic in the medium term, economies still rely on agriculture and basic services. Generally speaking, through these specific cases of "non globalized regions", we highlight here a major issue for all European territories: the importance of local, regional or national service (and even manufacturing) economies.

Flows	Europe in the world	European territories
Maritime Transport	- 86% of intra-European links, 95% when neighbourhood is included - Europe-related maritime flows include North and West-African coast, as well as Eastern Europe (the Ukraine, Russia, Georgia). - NAFTA and Eastern Asia are the most important external partners	- The five biggest port gateways concentrate 30% of extra-European links, far less than other parts of the world - Port gateways are very specialized cities, and do not concentrate other major gateway functions - the link between maritime gateways and regional economies has been shown as essential for European territories (WP15, 16)
Air transport	- the ESPON territory accounts for 20% of inter-regional air connections - 84% of intra-European connections, 91% when neighbourhood is included; - Functional Europe includes countries from the Maghreb and Turkey, while former Republics USSR has rather intense connections between them. - air connections are deeply structured by proximity, extra-European links are dominated by the flights toward the US with 3.6% of flight connections of European cities while no other part of the world goes beyond 1%.	- the five biggest European hubs concentrate 71% of extra-European links, more than in the US, showing how far the European airspace is unified; - long term, short term and daily mobility of the labour force is considered essential to development. Better accessibility is an essential competitiveness factor of major gateway cities but also of cities very well linked to these gateways.
Trade of goods	- the ESPON territory accounts for 22% of inter-regional trade of goods - around 70% of the trade of goods are made between ESPON countries and close associates, 79% when neighbourhood is included - the functional Europe goes beyond the ESPON area to include the former USSR, some North African and near East countries - strategic spaces of Europe include NAFTA with 7%, China with 3.9% and Japan and NIS with 2.4%.	European territories have diversified position in the international division of labour : - major cities (global cities, national capitals, port cities) mainly participate in the global economy through their service economy, but also by selling goods with high technological content; - Leading regions of North Western Europe and Northern Europe have very high positions in the division of labour, are specialized in services with a high intensity of knowledge, including finance, and still concentrate commanding functions of big transnational firms whose production is dispersed in complex value chains across the world (Western core European countries and Nordic countries). They distinguish themselves in their form of participation in the global economy, notably between service-oriented (e.g. the UK) and manufacturing (e.g. Germany and Northern Italy) economies. - Mediterranean countries have converged towards the European average in their position in the international division of labour but still significantly lag behind. They certainly suffer from their in-between position, in that they are not yet competitive enough on the most advanced segments of production of goods and services, and have also lost market shares on more intensive segments. - Central and Eastern European countries have rapidly converged to the European average since the fall of communism, some central European countries having benefited from huge investments in low, medium and even high technological goods. However, on the one hand, they keep a low position in the value chain in which they are embedded and notably lack any commanding functions; on the other hand, they increasingly suffer from the competition of extra-European countries with lower labour costs on low and medium
Trade of services, Networks of advanced producer services	- the ESPON territory accounts for 27% of inter-regional trade of services and the ESPON cities account for 33% of inter-regional cities' connectivity - 32% of links of European cities are made with other European cities, 39% when the neighbourhood is included. - Europe is a densely integrated city network and includes cities from the neighbourhood; however, functional Europe could also be defined as the entire world because of	

	privileged links between global cities from Europe, the US and East Asian cities; - NAFTA account for 19%, China for 6%, India for 5% in the networks of European cities	technological segments.
Foreign direct investment	- the ESPON territory accounts for 31% of inter-regional in or out flows of FDI - 79% of all FDI are made between European countries. - functional Europe integrates not only the neighbourhood but still also most Sub-Saharan Africa - NAFTA is by far the main partners with 15.5% of European FDI (sent or received) and Japan+NIS are far below with 2%.	Foreign direct investments have been a motor of growth in most central and Eastern European economies, explaining a part of the catching up process that has been observed. The challenge is in any case to reinforce the territorial embeddedness of large enterprises controlled by large transnational companies
Knowledge	- in knowledge flows, distance and spillover effects are essential. Intra-European flows are also of major importance. - in terms of knowledge, European flows concentrate with the other poles of the triad (USA and Japan), while China occupies a still marginal but growing share.	- Knowledge absorption capacity and innovation are quite concentrated within the European space in metropolitan areas and high level manufacturing areas (Northern Italy, Southern Germany, Finland etc.) - knowledge dissemination has been shown very affected by distance, demonstrating the importance of spill over effects that benefit to metropolitan and other advanced technological areas of Europe. Certainly the knowledge economy potentially strengthens spatial polarization at national and EU scale
Migrations, students	- the ESPON territory accounts for 21% of inter-regional migrations and 23% of inter-regional student flows. - 40% of non national migrants are European, and it goes to 64% when neighbourhood is included. - the space of intense migratory relations include Turkey and the Maghreb, as well as Southern America but not the former USSR in which migrations are mainly internal. - Strategic spaces for Europe are concentrated at the European borders	- attractiveness of European territories are very diversified: Central and East European countries remain unattractive for labour, except Baltic countries, while Mediterranean and Nordic countries have become as attractive as old immigrant countries of North Western Europe before the recent crisis - Major metropolitan areas have been the most attractive spaces, notably for qualified labour and students, reinforcing their competitive advantages in many areas such as advanced services; - Southern Germany, Ireland, Spanish coastal areas, Southern Sweden, Northern Italy have been particularly attractive for all types of labour including extra-EU qualified labour force. - Shrinking areas in demographic terms in both eastern and Western Europe have not necessarily been attractive for foreigners, with the exception of Northern Italy. At regional level, immigration does not necessarily compensate demographic decline.

Table 7 Synthesis about the position of Europe and European territories in the world flows

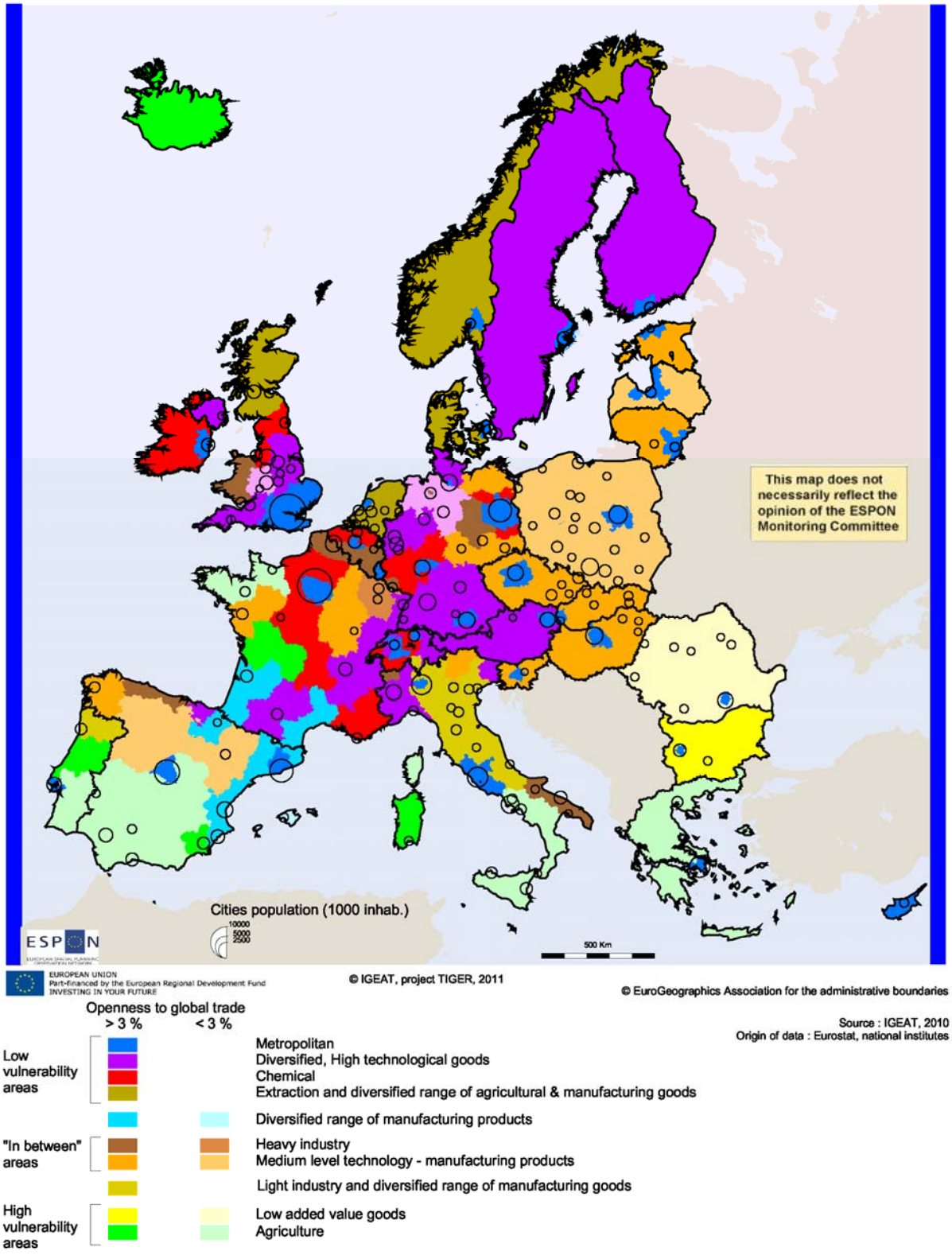


Figure 29. Vulnerability of European territories in the global economy

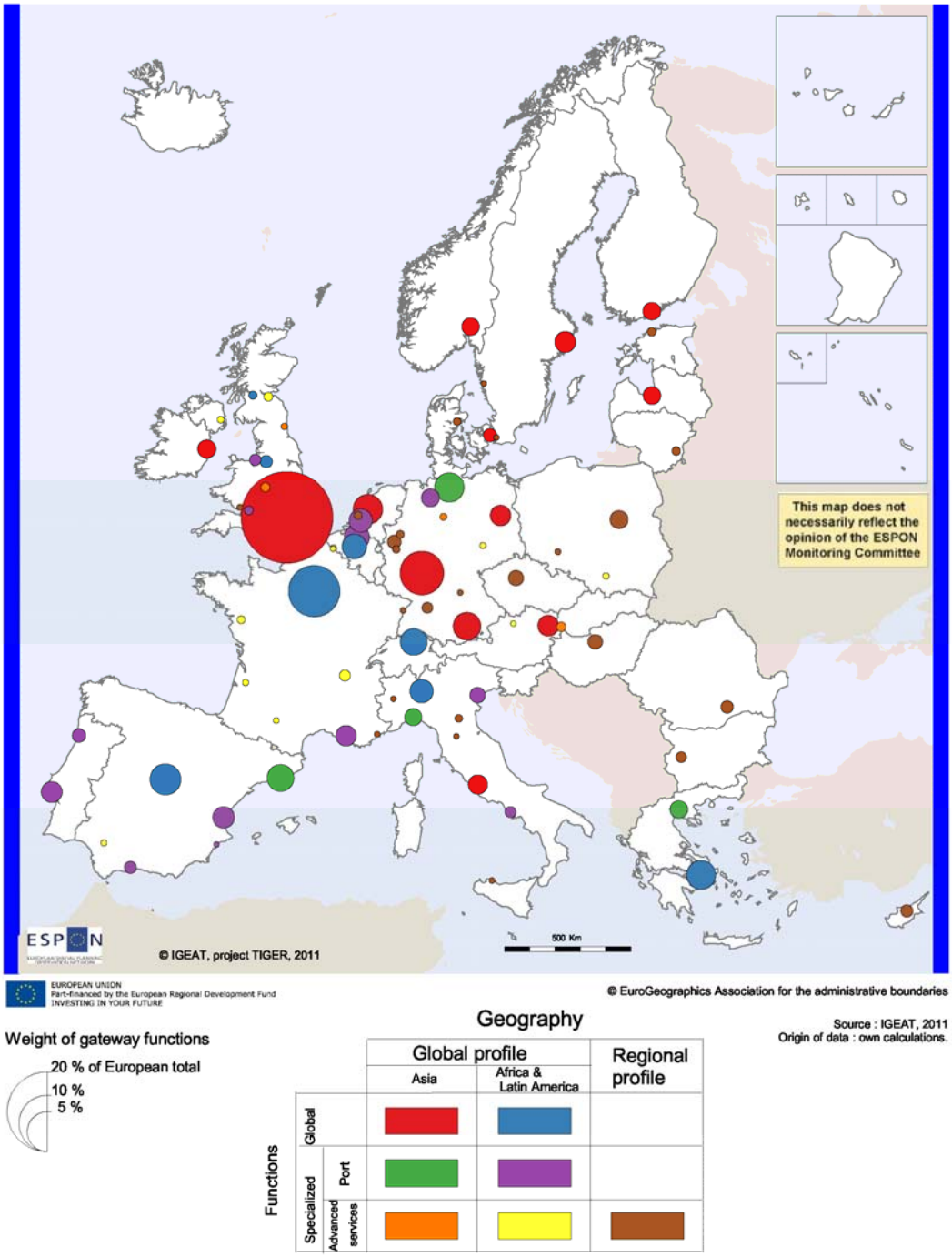


Figure 30. Typology of European gateways

3.4 Policy options

The place of Europe and European territories in the global economy can be articulated at three different levels of interrogation:

iv. How should Europe position itself in the global economy?
v. Which territorial policies can help to improve the position of Europe in the world, while at the same time improving territorial cohesion?
vi. How can European territories improve their performance in the global economy?

The policy options which derive from the answers to these questions take into consideration the main political objectives in the relevant policy documents, mainly the EU2020 Strategy, the 5th Cohesion Report on Economic, Social and Territorial Cohesion and the Territorial Agenda of the European Union (as well as the related document "territorial state and perspectives of the European Union"). The different objectives will be listed in a precise way at the three different levels identified above, taking for granted that they all relate to the general objectives of smart, inclusive and sustainable growth of the EU 2020 strategy.

The position of Europe in the world

In the main policy documents, the objective of growth gives way to different political objectives at the European level:
1. **Europe must act to avoid decline** (EU 2020);
2. **European growth will depend on its capacity to grasp opportunities from globalization** which are related notably to growing emerging markets (EU 2020, TS), to extra-European immigration (TS), and more generally to its capacity to maintain its position at the top of the value chain through innovation, or as a core in the international division of labour.
3. **The importance of neighbourhood and worldwide relationships**: "The success of the EU 2020 strategy will depend not only on the integration between Europe's regions but also on their integration with neighbours, and even with worldwide relationships" (Territorial State). The EU 2020 strategy adds that "The Europe 2020 strategy is not only relevant inside the EU, it can also offer considerable potential to candidate countries and our neighbourhood and better help anchor their own reform efforts. Expanding the area where EU rules are applied, will create new opportunities for both the EU and its neighbours".

How can this project inform these objectives?

1. **Europe will not avoid decline** in the sense that the demographic and economic weight of Europe will go on decreasing. This is a long term trend that has been documented in this report, notably by highlighting the diminishing weight of Europe in most economic flows but also the decrease of its functional influence in many parts of the world. As stated by the "Europe in the world" ESPON project, only enlargement will allow the maintaining of the importance of Europe in the world, though enlargement process may affect the EU political coherence and efficiency. The European decline should not necessarily be considered a problem since this is relative to the development of large parts of the world as opposed to its actual level of prosperity. At the same time, as illustrated throughout this report, whatever the nature of flows considered, Europe remains a major global economic actor and this is not likely to change in the near future.

2. **Opening the debate on the openness of Europe and on the role of the neighbourhood.** It is not the aim here to contradict the official political objective of an open EU. This objective is specified in the relevant policy documents with reference to the idea that Europe's growth will depend on its capacity to grasp opportunities from globalization and will benefit from wider integration with the neighbourhood and more distant parts of the world. Nevertheless, it is important to introduce elements of reflection on this issue that derive from this project, notably in highlighting the unequal geographical impacts of openness.

1. On the one hand, Europe is increasingly open to the world. Trade accounted for around 14% of ESPON GDP in 1996 and reached nearly 21% in 2007, just before the crisis. If services are included, we assess this ratio at around 27% of GDP. Europe attracts students and workers from increasingly diversified origins. Cities are embedded in global networks through transport of goods and people, but more decisively in advanced business services, notably financial services located in Europe's major global cities however the latter have not been responsible for the biggest global connectivity increases of European cities. Moreover, when looking at the qualitative position of Europe in the world, Europe as whole is maintaining a dominant position in the international division of labour, by selling goods with high technological content as well as knowledge-intensive services. In the long run, we also observe a relative convergence between European countries at the top of the global value chain. On the other hand, Europe is still a rather closed economy if we consider that the ratio between trade of services and goods and GDP largely overestimates the overall openness of the European economy, because trade is measured by total value of goods and services though GDP accounts for added value. The integration of European economies is first illustrated by the intensity of cross border trade, FDI, migrations, knowledge and human daily flows resulting in the fact that European countries mainly have intense interrelations with each other. Moreover, this functional Europe goes beyond the limits of the EU or the ESPON space and includes Northern Africa, the near Middle East and the former Soviet Republics. But the integration of the European economy goes far beyond that. It also results in very integrated and dense networks of cities in which for example firms of advanced business services use European global cities for their global operations, as well as by the existence of integrated European value chains as illustrated by the clothing and automotive industries. Here again, without doubt, the neighbourhood is a part of this integrated European economic space.

Considering this we can identify two important implications. First, degree of economic openness has been and remains a political choice, albeit independent of territorial politics, market forces act at a global scale. Due to the high level of internal integration and the restricted openness of large parts of the enlarged European territory, the EU of course has other possible political choices than the pursuit of total openness and trade liberalization. Second, neighbourhood is *de facto* a part of what we have called functional Europe. Though the importance of neighbourhood is mentioned in official EU texts, we cannot speak of an EU strategy for the neighbourhood apart from the idea that EU rules, notably EU economic rules, should apply to the neighbourhood to the benefit of both the EU and neighbouring countries. This vision will remain "paternalistic" for so long as clear and shared vision and development strategies are not deployed for the neighbourhood.

2. European openness is not territorially neutral because European territories have different capacities to grasp opportunities from globalization and some territories may be (and/or have been) affected by global competition, as illustrated by figures 29 and 30. Two main points must be raised here:

1) European territories are unequally open to external global competitive pressure

Throughout the report, we highlight this unequal openness to the global economy which reflects and is a product of uneven development. Besides the major cities embedded in European and global networks, notably in advanced business services, many territories still mainly participate in the global economy through manufacturing goods. Many of these areas are nevertheless still strongly embedded in national and European integrated value chains dominated by large European firms. Other areas rely more on local interconnected clusters of small and medium enterprises. In contrast, we also highlight that many European territories appear relatively closed to the global economy, putting emphasis on the importance of European, national, regional and local economic relations.
In general, we found no impact of (direct) regional openness to the global economy or the geography of trade on regional economic performances (WP7). Moreover, we have not found a relationship between cities' connectivity and relative economic GDP performances since 2000 (WP4). We may argue that the economic performance of cities also depends on very complex structural characteristics often inherited from long term trends. Indeed, even connectivity is largely inherited from a city's history – as illustrated by the position of London as the main European gateway in advanced services – and can be considered as one of those structural features on which urban policies probably can only have a marginal impact.
Policy implications from these observations are dual. On the one hand, the focus on the position of territories in the global economy derives from the interdependencies between the global and local which make it difficult to say that (closed) local economies are not to a certain extent globalized. For example, many European tourists in Italy will be transferring into the local economy money earned in the global cities. There is thus a need for policy to pay regard to an interpenetration of global and local economies which goes alongside an enduring importance of proximity, especially in the (high and low value) service economy. On the other hand, there is no evidence that the wealth of European territories mainly rely on their openesss and thus the EU should also pay attention to its non globalized economy, which is at the same time a source of social cohesion (local service economy) and potentially local growth.

2) The position of territories in the international division of labour and within integrated value chains may explain unequal vulnerability to global economic competition in both the service and manufacturing economies.

However, in this project, it has been shown how complex is the link between growth and territorial position in the global economy. The high position of territories in the international division of labour at European and global scales as knowledge-intensive or high technological urban or regional economies does not mechanically explain regional or city level economic performances.
Indeed, the picture is far more complex: in the last 10 years, convergence has been observed in the European territory, because new member states have benefited from high growth rates, as well as other "semi-peripheral" countries such as Spain, Greece and Ireland. If, as already underlined, capital cities of Eastern Europe have good economic performances that rely notably on their growing participation in European and global networks, some other territories specialized in low added value forms of manufacturing production have also experienced good economic performances. Indeed, East European regions have

remained competitive even at the bottom of the value chain (Balkans), but even more in medium segments (Central European countries), because of low labour costs, proximity to the European markets, flexibility and embeddedness in continental value chains, as illustrated by the Bulgarian clothing industry. Furthermore, the modernization of Eastern economies has also been accelerated by investments from West European firms in the basic service economy such as retail trade, allowing growth in productivity. This is typically a part of a catching up process observed in most new member states.
In contrast, Mediterranean economies have revealed structural weaknesses in the global economy (DG Regio, 2008). They suffer from their "in between" position in the European and global economy, with higher labour costs than Central and East European countries but an inability to compete with the most competitive European territories in higher added value segments of production. We have observed divergent patterns among Mediterranean economies: while Portugese and Italian regions have faced poor economic performance in the last 10-15 years, Spain and Greece have achieved good performance due to private or public debts resulting in a speculative bubble in real estate in the former case. Hence, in these two countries, economic growth has been revealed as unsustainable.

To conclude, though increasing interdependencies between European territories and the rest of the world are a powerful process, the European economy remains a very integrated continental economy. Moreover, the link between performance and the global orientation of the territorial economy is not as evident as it is often assumed. Finally, the European objective of increasing openness to the world is not territorially neutral since European regions have differing capacities to benefit from this.

3.5 Where to invest to face the challenge of globalization whilst reinforcing territorial cohesion?

In the territorial state and perspectives of the European Union, it is explicitly recognized that "Metropolitan areas play an important role in sustaining the EU's global competitiveness" (EC, 2011b). This can be interpreted as a way to achieve smart growth since "EU metropolitan areas, while being of a relatively modest size, host the most advanced worldwide services and most innovative high-tech manufacturing sectors" (EC, 2011b). A third way of saying this is that metropolitan areas are decisive for Europe to grasp the opportunities of globalization. Of course, in this report, the role of metropolitan areas has been widely illustrated as the vital gateways of globalization: Europe needs ports, airports, centres of services, knowledge production and innovation as well as financial gateways that reach necessary thresholds of concentration to benefit from agglomeration economies in these different fields (see chapter 2.2.2). However, we also discuss in section 1 of this chapter the lack of empirical evidence that can confirm a direct link between growth in GDP across the EU as a whole and the wealth-generating capacities of the major European gateways.

At the same time, the objective of inclusive growth explicitly refers to territorial cohesion in the EU 2020 strategy. In the Territorial Agenda 2020, this objective is made explicit: "Policy efforts should contribute to reducing the strong territorial polarisation of economic performance, avoiding large regional disparities in the European territory by addressing bottlenecks to growth in line with Europe 2020 Strategy".

In this framework, several general alternatives exist in the territorial policy of the EU when the challenge of globalization is taken into account:

- To invest mainly in the global cities, which are the gateways of globalization, in order to improve Europe's position in the world;
- Or, since the global/major cities are already well connected in the global networks, should we rather support second-ranked or even smaller cities to be better connected to the global and European networks?
- Or, by putting the emphasis on territorial cohesion, should the EU instead persist in a redistributive regional policy aiming at providing conditions for better performance in less developed regions?

These are crucial questions for the regional policy of the EU and we do not pretend here to provide the answers but rather we put forward elements of reflection derived from the analyses presented in this report. We reflect here on two specific options however these should not necessarily be interpreted as alternatives – a nuanced balancing of priorities is likely to be necessary to support sustainable development and growth across a diverse territory: a redistributive policy toward less developed regions; a reorientation of regional policy putting more emphasis on gateway cities.

Combining an opened up Europe with a shift toward major cities as a motor of growth in EU regional policy raises a number of issues:

1. The link between economic growth and city connectivity and size cannot be clearly established by empirical evidence;
2. The idea that the wealth of major European and national cities will benefit non metropolitan territories is not empirically proven;
3. The impact of public investments toward the most developed areas of the EU can be questioned since, by definition, it will concentrate in globally networked cities, endowed with developed infrastructures (transport, education etc.) and specialized in high economic functions already at the top of value chains;
4. The economic openness of Europe could potentially impact on the development of regions facing competition from less developed areas where labour is cheaper, both in Eastern Asia and in the European neighbourhood, which are specialized in weak functions or low added value sectors and also regions where labour costs are already high even though technological know-how is still moderate, as we observe in many non metropolitan Mediterranean regions (in Southern Italy, Northern Portugal, Greece, central Spain outside Madrid etc.). The weakness of such regions in relation to European competitiveness objectives might also be observed in many areas of Eastern Europe in the near future, once they have reached a certain development level, because of similar structural features, notably an in-between position in the international division of labour, combined with weak entrepreneurialism (endogenous development) and a weak territorial embeddedness of transnational firms that have massively invested there. In a global context of financial crisis and recession, regions still lacking the capacity to move up in the value chain would be at risk, thus a weakening of EU "territorial investments" in favour of less developed regions raises potential future problems. Hence, the historical justification of European regional policy, as a tool to help less developed regions to resist the economic shock to unequal competition due to their integration in the European market – and nowadays more and more to the global market – is still relevant today. Moreover, convergence has been the trend in recent decades (see chapter 2.1) and EU investments have produced concrete outcomes that have improved daily life in less developed regions albeit the economic impact of regional policy on competitiveness is difficult to demonstrate.

In conclusion, the vision for an open Europe combined with a wholesale reconfiguration of European policy, notably in favour of metropolitan areas as

motor of growth, is highly questionable because the openness of Europe is likely to suddenly increase the vulnerability of weaker regions. The debate on European economic openness does not seem to be politically relevant today. In other words, since increased economic openness might reinforce regional inequalities, it can be argued that regional policy should continue to act to preserve territorial cohesion. As a consequence, it is argued here that the challenge of globalization makes regional policies to support growth in peripheral and under-developed regions and their cities through redistributive funding more pertinent than ever. In section 3 we present some elements of reflection on the orientations of such a redistributive policy.

At the same time it is clear from our results on the importance of cities in a global context that gateway cities must not be ignored in regional policy as has until recently largely been the case. Cities across the EU have a key role to play in adding value to production in the wider regional and European economies. It is important not to simply focus on the major agglomerations of London and Paris or even other major business cities in the economic "core" of Europe, as having fixed positionalities in the world economy. Of course their positions are strong compared with those of capital and other cities in peripheral regions but the latter can benefit from network connectivity with existing gateways as shown in chapter 2.2.2 and working paper 3, and as seen, developed cities (for example in the US), are subject to downward trajectories in an increasingly fluid global context. At the same time, as already discussed, it is far from clear that the position of cities in networks is enhanced sustainably by public sector boosterism policies. Furthermore policies on regulation, taxation, planning controls etc. can also have unintended consequences which can compromise a city's engagement with external networks (Taylor *et al.,* 2003). So it must be ensured that policy does not inadvertently compromise the sustained functioning of gateways and also that honed direct interventions ensure that funds (increasingly in the Western world, private sector funds) are raised and used to invest in public infrastructure developments necessary to maintain efficient essential services even in successful global gateways.
In conclusion, our findings suggest that effective regional policy needs to be informed by evidence bases that engage with the specificities of place roles, functions, growth and development support needs across the territory.

3.6 Policy options by types of regions

In the territorial agenda, it is stated that (page 7) "The use of social capital, territorial assets, and the development of innovation and smart specialisation strategies in a place-based approach can play a key role… Strengthening research, human capital, the capacity for innovation and bringing ideas to the market are essential… Furthermore, integration of local endowments, characteristics and traditions into the global economy is important in strengthening local responses and reducing vulnerability to external forces" (EC, 2011a).

However, this general assessment runs up against the unequal ability of territories to face European and global competition (figures 29 and 30). For example, at the bottom of the value chains, we have highlighted the difficulties of Bulgarian firms in moving up the chains both because of the local contexts they are embedded in (low qualifications for example) and their present weak position in value chains that are controlled by West European firms.

We finally propose some policy options that reflect the territorial segmentations identified in our research:

1- *Gateway cities at a global, European and national scale.*

We have underlined the importance of these for the European economy. We have also highlighted the apparently weak relationship between city connectivity and economic performance in GDP in the last ten years with the exception of Eastern and Nordic capitals, as well as London. However, no connected gateway city performs badly and there are also signs that they have been more resistant to the recent crisis, at least in terms of inward flows of real estate investments (WP 9).

What can we draw from this in policy terms?

- Urban policies have a weak impact on city connectivity and improved city connectivity will not necessarily result in increasing competitiveness as measured by GDP. Hence, public sector policies aiming to attract investments in higher and interconnected global functions may be inefficient both at the urban and European scales. We argue here that this process is probably working largely independent of state intervention however challenges of social cohesion, infrastructure, congestion and market regulation must be addressed and dealt with even in the most globally connected cities;
- Priorities of major cities could focus on these major issues that arise from concentration and agglomeration: the challenge of increasing social polarization (Lennert *et al.*, FOCI, 2010); the problems of infrastructure and congestion, within metropolitan areas but in addition, increasingly in extended urban functional areas which do not correspond to administrative boundaries yet which present a threat to sustainable development and their position in European and global networks. The major issues here relate to matters of strategic and joined-up governance.

2 – *"In between" manufacturing areas*

These regions are characterized by specialization in medium functions and intermediary sectors in the global economy. They have been rising in technological skills during the past decades. But they have also in common their inability to upgrade beyond a certain threshold combined with the risk related to exogenous development (related to big foreign firms) they benefit from, and a weak entrepreneurial fabric. Moreover, in this context, Mediterranean territories have had to face the growing attractiveness of regions from Central European regions, with lower labour costs but qualified workforce. This may explain the structural crises faced by Mediterranean manufacturing regions while in Central/Eastern Europe, an "in-between" position may result in the near future from increasing labour costs and the rising position of some neighbour countries and Eastern Asia.

The challenge for these regions is to reinforce the territorial embeddedness of large foreign firms. There is probably no other way for these regions than "strengthening research, human capital, the capacity for innovation", allowing also to move up in the value chains which can be assisted by the development of advanced services such as financial, management consultancy, advanced logistics etc in regional gateway cities.

3 - *Low value manufacturing areas*

In an open Europe, low value functions will probably continue to decline, mainly in the Balkans, Northern Portugal and other small Mediterranean areas. However, we highlight the low capacity of these regions of moving up in the value chain

when their firms are locked into subcontracting positions. This has been illustrated by the crisis faced by Northern Portugal. We do not consider the “Marshallian districts of small and medium enterprises” to be part of this group because they have been moving up within the value chains and have been able to diversify their economy, building on endogenous capacities. But in the Balkans, this capacity is just not there and their future growth will require further massive assistance from the EU to strengthen their structural assets and reinforce their human capital as well as their basic infrastructures.

4 - *The importance of the local economy across European territories*

Europe is far from an open economy, it is very much an integrated economy. In European territories, basic services play a vital role. First, they constitute an important share of the local economy. This relates to the central paradox of globalization: while all economic sectors have become more and more open, with a sudden acceleration in the nineties, developed economies shift toward less open sectors of services, resulting overall in the moderate increase of openness of developed economies such as the EU and the NAFTA. Second, basic services are essential to social cohesion. Third, these services are in a modern economy an essential basis for long term economic growth.

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