

PROJECT FINAL REPORT

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FINAL SUMMARY REPORT FOR PUBLICATION

Executive summary

The work described is the EuroBroadMap project, performed by an international consortium of research teams (France, Belgium, Portugal, Sweden, Malta, Romania, Turkey, Brazil, Cameroon, China and India) of various research fields (Geography, Sociology, Anthropology, History, Political Science, Economy). Its target is to elaborate three types of non-Eurocentric visions of Europe in the world (subjective, political and functional) and to derive integrated visions from these analytical results.

⇒ **The subjective vision** aims to explore 'how Europe exists in the mind'. The originality of the EuroBroadMap project is to explore the variation of the representations of Europe through an in-depth analysis of mental maps of the world inside and outside the European Union. A major piece of work is the analysis of mental maps of students (quantitative survey on 9300 undergraduate students in 43 cities and 18 countries). It relies on an analysis of the perception of migrants (qualitative socio-anthropological survey on changing representation in different migratory channels toward Europe).

⇒ **The political aspect** of the project aims to answer 'how Europe exists in relation to political discourse'. It tries to develop the institutional visions of Europe produced both by states (national political visions) and by supranational or transnational organizations (international political visions) with the complementary approach of norms transmitted to children through education (textbook study).

⇒ **The functional approach** aims to analyse objective regionalization of the world according to functional flows and networks and to check the position of Europe in this regionalization. It tests different types of flows (trade, finance, migration, diplomatic relations) and applies different methods that reveal the various images of Europe in the world.

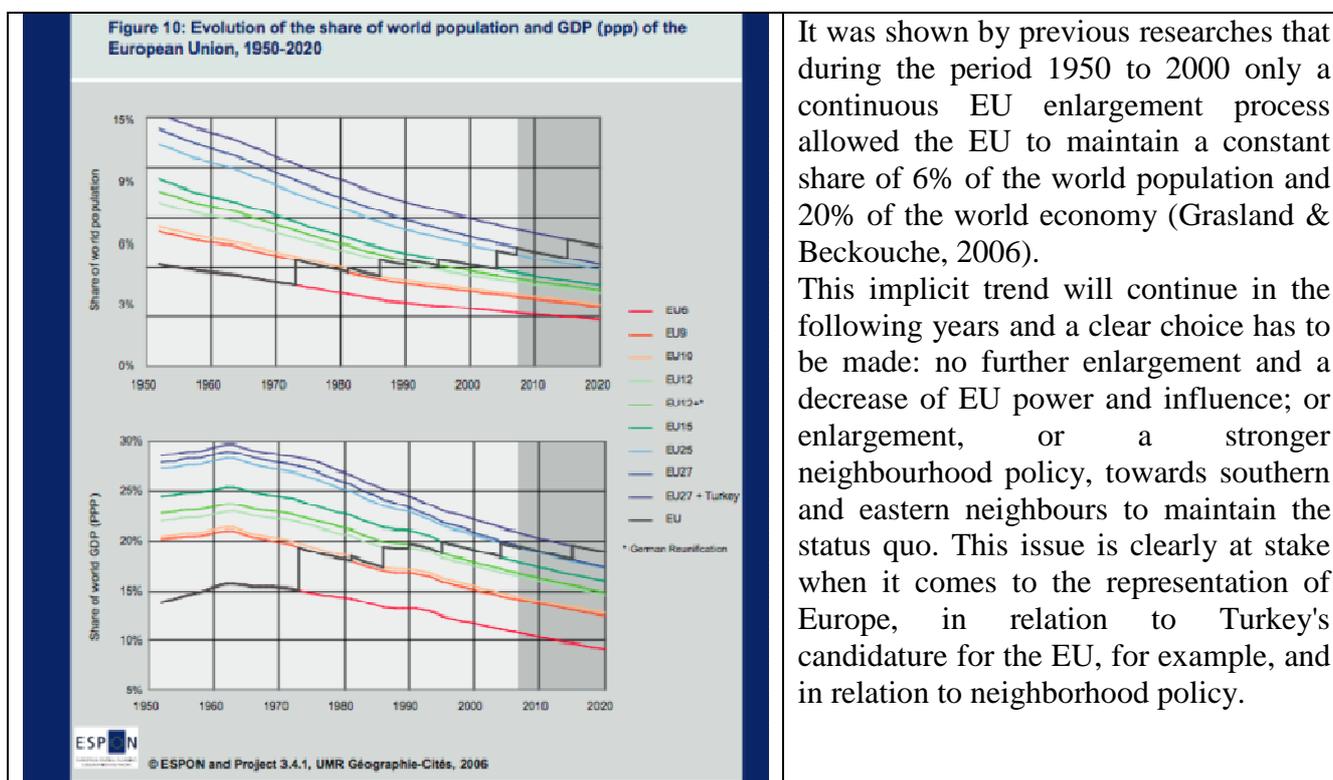
All this material allows exploration of the differences between the mental, functional and political aspects of Europe in the world from a critical perspective. When doing this assume that some of our approaches are Eurocentric but, at the same time, insist that they are essential because (1) they cross different visions of Europe and reveal contradictions between this approach (e.g. the impact on mental maps of the fact that the functional Europe is larger than the political Europe) and also because (2) each vision is presented from various points of view according to the concentric circles defined at the beginning of the project. In other words, the project is 'critically Euro-concentric' rather than 'non-Eurocentric'. Finally, we place more emphasis on mental visions than political and functional ones, because they constitute the area of work in which all partners are involved and where this critical approach is the most likely to be efficient.

Summary description of project context and objectives

Political and social context

The EuroBroadMap project is based on the idea that the European Union (EU) could succeed better on the world stage (in terms of diplomacy, finance, trade, etc.) with a coherent and shared vision of its place in the world, both inside and outside Europe. Unlike other world powers, the European Union faces the major difficulty of combining the different visions produced by each Member state with a different historical, political and cultural heritage. Two interlinked objectives, strongly linked to the political demands of both EU stakeholders and citizens, are targeted by the EuroBroadMap project. First, it intends to demonstrate that different visions of Europe in the world currently exist, which implies different strategies in respect of different groups of external countries producing different impacts and outcomes on EU territory. Second, we aim to examine the place allotted to Europe in the visions of the world inherent in non-European countries and to chart the implications of these external visions for the future development of European societies. In addition, the various representations of Europe in European countries chosen according to the date of their accession to the European Union and their spatial position in Europe are analysed. A question closely related to the mental representation of Europe concerns the EU boundaries and the enlargement process that is a sensitive issue in the media context.

Figure 1 : Evolution of the share of EU in world population and economy (1950-2020)



Scientific context and objectives

As the EuroBroadMap project objective is to analyse the representation of Europe in the world, the project is implemented in the general scientific background of social representations and more precisely in the geographical background of spatial representations. This section presents the general scientific context of social representations and particularly the geopolitical and migration issues linked to them. Then it focuses on the specific spatial representation aspects called 'mental maps'. Finally, the scientific context of the analysis of flows and networks in relation to world regionalization is presented.

Subjective Europe: representation of Europe in the world

Social representations are usually defined as a set of knowledge and beliefs on objects and concepts which help us to cope with the world around us (Dortier, 2002). They have an individual dimension but also a collective one. As they are shared by a community, they are one of the bases of the collective consciousness that contributes to the community's consistency. They are usually durable and shared by many generations although they can vary significantly in time and space.

Collective representations of the world can constitute geopolitical issues. For example, the visions of the EU in Russia and former Soviet republics have recently become a major topic of research: some authors undertake interesting investigations of the mainstream geopolitical visions in Russia. An important volume of literature exists in political science and in the humanities related to the visions of the world that are produced in major countries of the past (Russia), present (the USA, Japan) and future (China, India, Brazil). Each of these major countries can rely on institutional or academic 'think tanks' that are directly in charge of the elaboration of strategic visions of the world. The forms of elaboration of this national strategic vision can differ (democratic, bureaucratic, lobbies, etc.) but the result is always one or several visions of the situation of these countries and their relations of conflict or complementarities with other major world players. Moreover, these countries also explore the visions of the world adopted by their perceived major challenger and an important part of current research on Europe in the world or European visions of the world is thus elaborated in non-European countries. For example, Chinese researchers are publishing more and more papers about Europe on a number of topics: for example, the political foundations of the EU (Ma Runfan, 2005; Luo Zhigang, 2007) and the declining influence of the European economy on the world scale (Wang He, 2002; Yang Weiguo, 2002), especially when compared with China (He Ping, 2006).

Collective representations are also an interesting issue in the context of migration analysis. Specific work has been undertaken in respect of combining representations of the world and/or a world region and the topic of migration. O. Farah Arreh (1995) highlighted the importance of the mental representations of the young scholars of Djibouti in their desire to migrate. In the same vein,

a survey was launched in 2004 by the European Commission's Directorate for Education and Culture on the perception of European higher education in third (non-European) countries (ACA, 2005). The aim of this project was to 'acquire an in-depth understanding of the current perception of European higher education in third countries' in comparison with its competitors and to make recommendations designed to improve the diffusion of information about higher education in Europe. The final aim of course for the European Union was to attract high-level third-country students. On this specific topic of research into the mental maps of migrants, it seems that the surveys that have been done thus far do not take into account the evolution of the cognitive representation of the space of migration at each stage. One of the objectives of this part of the project is therefore to produce an evolving picture of the perception of migrants in respect of the place to which they have decided to migrate.

Finally, in the general framework of social representations, spatial representations are mainly analysed by spatial psychologist and geographers. Psychologists usually focus on the distortions between real space and representations and on the factors that could explain those distortions, whereas geographers generally focus on how spatial representations influence spatial behaviour and practice (Saarinen, 1987; Gould & White, 1997). If at the beginning the first researches in geography mainly focused on local space (town or borough scale) (Lynch, 1960), they quickly moved on to larger spaces: regions, countries and even the world. Saarinen's research on world-scale sketch maps was often undertaken with a view to demonstrating the variety of countries' perspectives on the world or to test the geographical knowledge level on a certain sample of the world's population (Saarinen, 1998; Saarinen & MacCabe, 1995). The material gathered during these surveys is analysed in two main approaches. The first focuses on the 'centring' of students according to their place of residence (Saarinen, 1987). The second, and more frequent, approach analyses the quality of mental maps, i.e. the number of countries mapped, their relative proportions, their location, etc. That being so, in the literature we can source many authors and numerous places or surveys following this approach; see, for example, Saarinen and MacCabe on Finland (1989), Germany (1990) and the USA (1995), Pinheiro on Brazil (1998), Boyowa on Africa (2003), etc. Beyond the descriptive approach some authors seek to explain the frequency of place representations via statistical approaches based on the gravity model. Even if they posit hypotheses on the factors that could explain differences in perception and knowledge, the link with scholarly or media knowledge produced (on the world) is rarely deepened and explanatory factors are often simply considered individually without any linkage. Moreover, although such research may be very fruitful from a theoretical perspective it is often disappointing from a methodological perspective: the rich vein of material accumulated is actually often underused. Beyond the setting-up of statistical models, authors have never produced a world map synthesing their results which allows them to provide a global picture of the world. A further field of analysis emerged at the beginning of the twenty-first century, with researchers focusing on distortion in cognitive maps while exploring the explanatory factors (Friedman & Montello, 2006; Battersby, 2009; Battersby & Montello, 2009; Friedman, 2009). In the framework of the project we have chosen the world perspective because one of our objectives is to assess **the representation of Europe in a non-Eurocentric way**. Moving beyond classical approaches our aim is to analyse how places are clustered when interpretative maps (Didelon & al., 2011) are made. We focus therefore on the analysis of world mental regionalization in order to check if a 'Europe' world region exists in mental representations and what constitute its spatial (how people draw it on a world map) and semantic definitions (the names given to that portion of space).

Flows and network analysis and world regionalization

Since the eighteenth century, many divisions of the world have been proposed by the emerging social sciences as well as by the natural sciences (the geological plate). Most of the initial divisions of the world were however based on structural facts like climate, population density, GDP per capita, level of development, etc. It was only in the second half of the twentieth century that growing interest was manifested in divisions of the world based on flows and networks, precisely when the world economy started to experiment with the increasing globalization of trade, migration, etc. Divisions of the world based on flows can be understood as a reaction to the simple divisions of the world that existed before the Second World War (the five or six 'continents') or those that were produced immediately after the War in the context of the cold war ('West/East') and decolonization ('North/South'). It is probably the development of the centre-periphery model (Amin, 1990; Wallerstein, 1980; Reynaud 1981) and the reactions that this produced across the social sciences that gave the initial impulse to the research on new innovative methods of world division based increasingly on global flows.

In contrast with geographers and economists who were strongly influenced by the effect of distance and the related spatial interaction models (Fotheringham & O'Kelly, 1989; Sen & Smith, 1995) developed at the beginning of the twentieth century by Stewart, Zipf and Reilly, the sociologist/political scientist who was interested in the verification of the assumption of the centre-periphery model made no particular assumption about the geometry of flows and was ready to adopt new methods derived from graph-theory that were likely to produce non-contiguous groups of states, i.e. clusters of countries linked directly or indirectly by flows and networks but not necessarily neighbours in terms of physical space. The quantitative revolution and the elaboration of new databases on a world scale in the 1960s and 1970s thus offered two very different paths for the elaboration of world divisions based on flows associated with two very different theoretical backgrounds. Since the fall of the Iron Curtain (1989) and the increase in trade flows and migrations that took place in the 1990s, theoretical positions have been significantly revised and many concepts have been amended between the various disciplines of the social sciences, in some cases with complete inversions of the initial position. The geographical pattern is dominated by networks. This constitutes Manuel Castells's (1996) 'space of flows' rather than 'space of places'. Owing to the primary importance of capital flows, the prominent territory is the Global City (see Sassen, 1991, 2002; Taylor, 2000, 2005). The multidirectional connection of global territories is the main feature of this archipelagic vision. For P.J. Taylor (2001) 'globalization represents a metageographical moment, a time when the taken-for-granted way in which, collectively, we organize our knowledge of the world as spatial structures is being eroded'. For J. Levy and M. Lussault (2003) borders and distance are considered as residual realities in a new world based on places and networks. The network approach is also related to progress in the analysis of gender status, particularly in studies of migrant women (Boyd, 1989; Curran & Saguy, 2001; Fawcett, 1989; Matthei, 1997).

Therefore, studying flows' matrixes in order to produce a world regionalization cannot be considered as a scientific innovation. What remains a strong plus-value of the EuroBroadMap project is first of

all the importance of its dataset construction; second, the emphasis placed on a systematic analysis involving different methodologies; and, finally, the importance of the comparative approach for answering a single question: on a world scale, using different methods for different flows' matrixes, what is the regionalization produced, and does something like Europe and/or the European Union appear? Building such a dataset is not a trivial task and if technical aspects apply (data collection, coding, format, etc.), strong scientific reflection is implicit. Although the EuroBroadMap project uses existing matrixes (trade, stock exchanges, migration flows), it has also produced some new and valuable ones (diplomatic representations, United Nations General Assembly voting patterns, foreign direct investments) that should be available on the internet in the near future.

In order to answer our two questions (which regionalization and is Europe/the EU in it?), three main approaches were used: dominant, centre-periphery and alternative (Intramax and structural equivalence). The first one assumes that the world can be divided between dominant and dominated states. The centre-periphery approach shares this view of dominance and dependence by supposing the existence of asymmetric and unequal relations between core and peripheral states within a unique world system. Finally, the third approach supposes the existence of intermediate levels of organization between the states and the world. This is not the place to recall the theoretical foundations and empirical involvements of these methods (all developments can be found in Van Hamme & Grasland, 2011).

Main ST results / foreground

Introduction²

In this report we have tried to propose an integrated vision of the results of EuroBroadMap projects, thanks to the various syntheses realized during the last year of the project. The international scientific colloquium (*'Europe seen from here and elsewhere'*, Rouen, 1 to 2 December, 2011) and the political event of dissemination to stakeholders (*'Mapping the European Union in the World'*, Brussels, 6 March, 2012) were two crucial milestones in the internal and external debate of project results. On the basis of the debates induced by these two events, we propose to organize the document around three interlinked questions of major interest:

1. **Does 'Europe' exist?** The answer to this question is not so obvious if we adopt a perspective of the division of the world in 'regions', without any preconceived ideas on the pieces of the puzzle to be identified. According to the criteria (mental, functional, political), do we necessarily obtain a piece of the world called Europe? and is it always the same piece?
2. **Focus on internal/external perceptions of 'Europe'.** Using a reverse approach, we can start with the word 'Europe' and examine how this fuzzy notion is associated with various geographical definitions and discourses, and, more generally, visions depending on the characteristics of the observer. Benchmarking internal and external visions is a major priority here, but without neglect of the diverse points of view inside and outside the EU.
3. **From static representations of 'Europe' to dynamic visions of the European Union.** Moving the focus from 'Europe' to the European Union requires significant modification of the previous perspective because it makes it possible to take into account the historical dimension. Contrary to 'forever-existing Europe', the European Union is a dynamic political reality with changing borders, as well as changing internal and external representations. Unlike 'Europe', the EU is an object of science and not a subject of metaphysical speculation.

1. Does Europe exist?

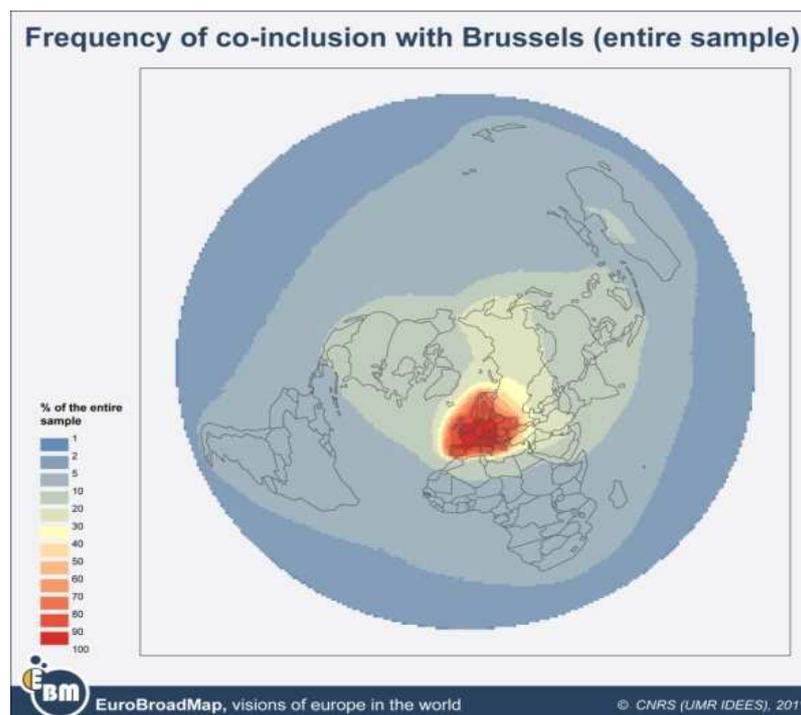
One of the main approaches chosen in the project is the adoption of a non-Eurocentric method to analyse the mental representation and the relative position of Europe in the world. This implies acceptance of a certain level of risk in terms of finding that people have developed a mental

² Like all syntheses, what follows must be read with caution as it presents an overview as some of the main results. Precise reference is made to the EuroBroadMap working paper wherein the reader will be able to find details regarding the sample, tools and methodology used.

This vision is the expression of the collective representation of the world shared in all the countries surveyed. Although the world representation in continents presents some fuzzy characters (Didelon & al. 2011) it is quite well-rooted in people's minds, as stressed by Lewis and Wigen (1997): continental representations of the world are taught very early in school and have been for a long time. Therefore, in this continental vision of the world, the existence of Europe is not in doubt. Considering the whole sample, the second most commonly used single word to describe world regions after 'Africa' is 'Europe' (used 3633 times; 5.71% of the expressions used). This value does not take into account expressions like 'Western Europe' or 'Eastern Europe'. Europe, however, is not always identifiable in the world representations; for example, when students use specific kinds of regionalization. Indeed, the second most important way for students to draw world regions is according to economic and development perspectives or geopolitical perspectives. In this context the coupled categories north / south or west / east, developed / undeveloped, rich / poor, exploited / exploiters are very much used, but students can use more precise categories. These visions of the world also reflect very commonly used 'mosaic meta-geography' (Beaverstock et al., 2000) to perceive and describe the world (Lexis & Wigen, 1997). In those visions, Europe is included among the rich, industrialized, developed, northern and western, and exploiter world regions but has no individual existence.

To test the spatial existence of Europe we can also represent the region drawn by students that includes Brussels (Figure 3). The spatial pattern obtained assesses the spatial existence of Europe at the world level even if the considered co-inclusion region extends to the entire world. This is because of the binary regionalization (north / south) and one-world regionalization sometimes described by students. The maximum level of inclusion in the region, however, shows a core around Brussels that includes European Union countries, plus some Eastern European countries like Ukraine. The level of inclusion drops when we cross the Mediterranean Sea, the Russian western border.

Figure 3: World regions including Brussels

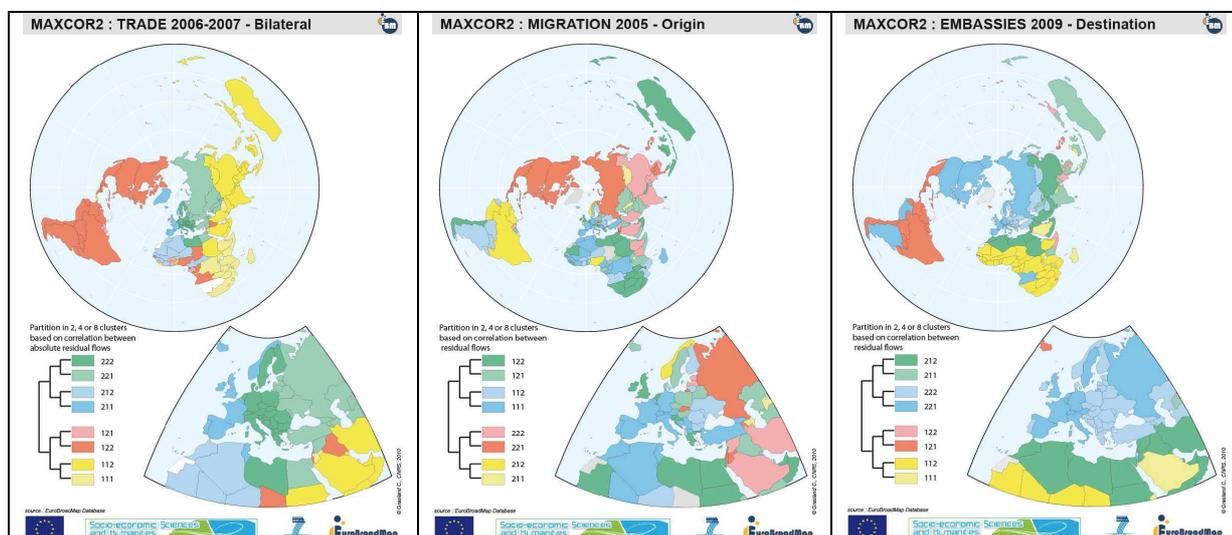


The analysis of mental representation of the regions in the world assesses the existence of a piece we can identify as 'Europe'. This piece is rather large in spatial terms as it includes Ukraine and Belarus, and extends into Russian territory. It corresponds to a vision of Europe common in geography textbooks, which often define Europe using physical criteria like the Ural Mountains.

1.2 Does Europe exist from a functional perspective?

In the era of globalization, flows have dramatically increased across the world. Trade and FDI flows have reached unprecedented levels, beyond those achieved after the first wave of globalization before the First World War (Chase-Dunn, 1999). This new wave of globalization is also characterized by the growing importance of financial flows across the whole world since the 1980s. We cannot be sure that migratory flows have reached higher levels than in the past but mobility has been increasingly complex and globalized. Hence, the literature points to different structural changes marking a break with the past: flows have become more global, connecting all parts of the world more visibly; they have become more complex, notably in their spatial configuration. Through the analysis of different kinds of flows, we aim at highlighting spatial structures and more precisely at checking if we can identify a spatial configuration that can be associated with the Europe usually defined? If yes, what are the characteristics of this part of the world according to different approaches and themes? We focus here on three different types of flows describing three thematic fields: economy (trade), migration and diplomacy (embassies).

Figure 4: Comparison of three functional divisions of the world



As can be seen in Figure 4, the divisions of the world based on functional criteria appear to be rather similar and our different analyses have certainly highlighted a spatial structure that can be associated with what is commonly named 'Europe'. It means that we have identified a coherent area which gathers together core countries in structural terms, with intense flows between them.

The limits of Europe differ, however, according to the method used. At the minimum level, we identify only a few powerful and/or prosperous countries that might be associated with the core of

Europe: Germany, France, Benelux and a few other countries. At the maximum level, we identify a large area of influence associated with the European core that includes not only Central and Eastern countries, but also Balkan countries, the former USSR area, North Africa, and the Near Middle East. As regards the rest of Africa, its inclusion in Europe's area of influence depends on the type of flow: large parts of Africa – Western and Central Africa – still have strong human links with Europe, whereas the trade area of influence toward sub-Saharan Africa has completely shrunk in these last decades. Moreover, in most cases, we observe first of all a clear opposition between an area covering EU27, and its eastern and southern neighbours, and the rest of the world. The further division reveals internal divisions of the pan-European regions between a western part generally associated with northern Africa and an eastern part more connected with Turkey and Russia. At the same time, the 'rest of the world' is clearly divided between an American part and an Asian-Oceania part. Only sub-Saharan Africa remains difficult to allocate as functional associations are changing from one country to another.

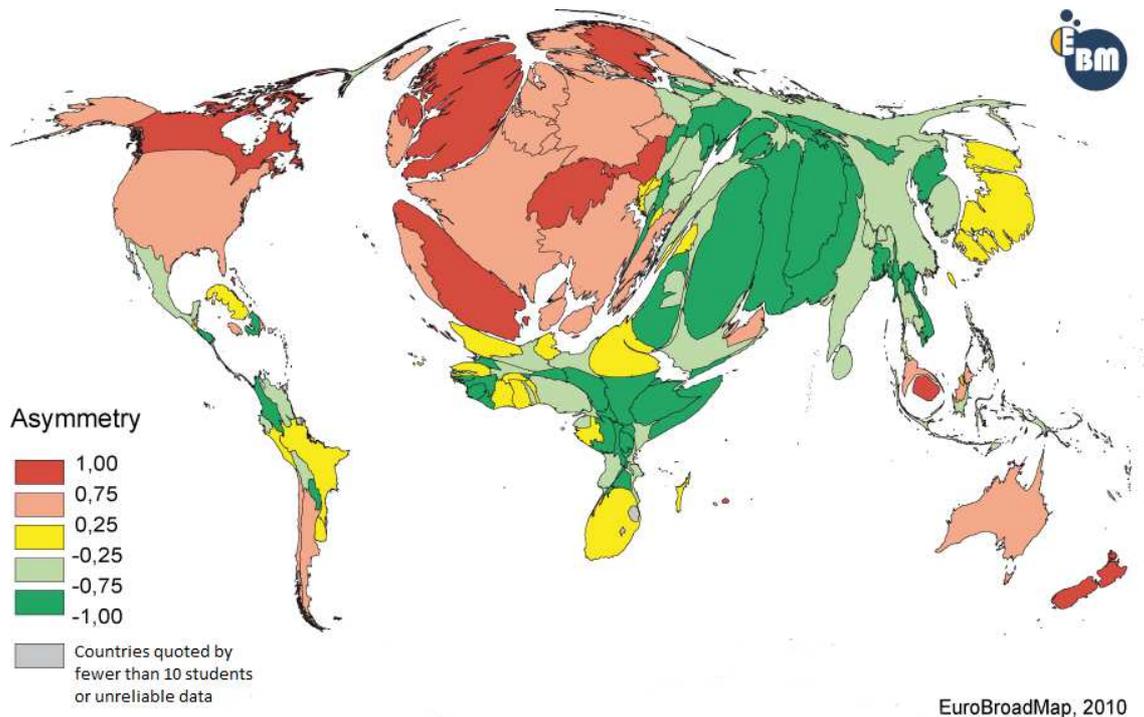
Systematically obtaining a cluster corresponding to 'something like Europe' is therefore a result of particular interest, especially when it is the result of a different algorithm based on a different theoretical assumption. It was also important to observe how the limits of the clusters change according to the three components of (1) nature of flow, (2) time period, and (3) the algorithm used. None of the divisions of the world produced by the project is interesting in isolation. What is very interesting is the difference observed when one parameter is modified: for example, the comparison of world divisions obtained for the same method at the same period but for different criteria.

1.3 Attractive countries and cities in the world: does Europe have a place?

According to the Lisbon Strategy, it is certainly of the utmost importance for the EU to evaluate its degree of attractiveness to external migrants (especially young graduate students) who can offer valuable inputs in terms of research, innovation, culture, and the arts. In the project, following the decision to implement a non-Eurocentric approach, we asked the students where in the world they would like to live or not live in the near future.

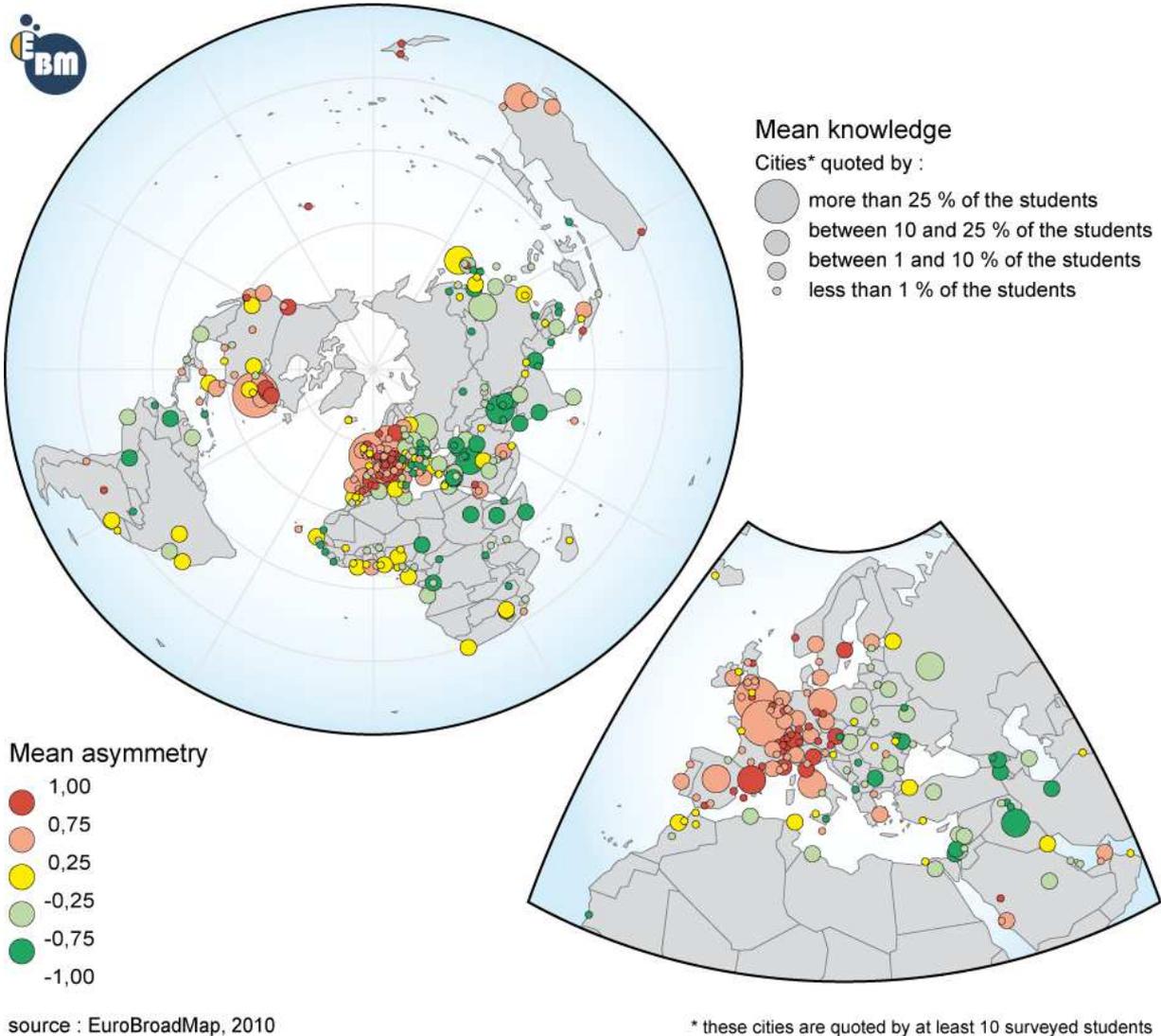
On the whole (Figure 5), we can see a very large cluster of attractive countries in northern and western Europe which appears bigger than the equivalent cluster in North America (the USA and Canada) and eastern Asia (Japan). This 'Great Triad' is completed by a symmetrical 'Small Triad' of relatively attractive countries in the southern hemisphere (Brazil, Argentina, Chile, South Africa, Australia and New Zealand). The most unattractive part of the world for our sample of students is located in southern Asia, the Middle East, sub-Saharan Africa, and Central America. The countries often mentioned by the global media (newspaper, TV channels) as places riddled with crisis or war, are particularly visible (Israel, Pakistan, Iran, Iraq, Afghanistan). We can see that poverty is related to ignorance, except in the case of natural disaster. Most countries of sub-Saharan Africa are simply ignored and only the biggest ones are mentioned. It is important to observe, however, that these results are biased in the sense that they can certainly not be considered as representative on a world scale as the EuroBroadMap survey was limited to 18 countries selected in a specific way.

Figure 5 : An attractive Western Europe



The results are rather similar when we look at the cities described by the students as places they would like to live or not live (Figure 6). Cities worldwide are well cited and overall the knowledge rates follow the hierarchical structure of the population. Nevertheless, as in the case of states, there is a significant concentration of the most quoted cities in Europe and especially Western Europe where the descriptions are largely positive. The margins of Europe (the Mediterranean basin and Eastern Europe) are less cited and then almost completely negatively. On the whole, the three cities that appear to be the most attractive are Paris, London, and New York, because they have at the same time a high recognition level (respectively 50%, 47%, and 45%) and a clearly positive asymmetry (Paris: 0.6, London: 0.7, New York: 0.4).

Figure 6: Attractive cities in the world



Analysing the descriptions of countries and cities as places student would like to live or not we can definitely identify the attractive part of the world as Europe, but interestingly the spatial configuration of this attractive Europe is smaller than the visions of Europe obtained previously. It includes mainly north and south European Union countries and Eastern European countries are described negatively and therefore appear less attractive.

2. Focus on internal / external perceptions of Europe

We have seen in the previous section that when we adopt a non-Eurocentric approach, i.e. when we analyse the world without any assumption of the existence of Europe, we can identify in the majority of cases – almost without exception³ - a spatial object that can be identified as 'Europe'. But the geographical extension and the borders of what can be recognized as 'Europe' are quite different, depending on the approach chosen (mental maps, functional flows, diplomatic relation, attractiveness). The object 'Europe' is therefore fuzzy and unclear: but is it a property of the object

³ This lack of exception makes the result suspect, as we will discuss in section 3.

itself or a property of the observer ? In this second part we assume without discussion the existence of Europe (a nominalist point of view ...) and focus on it to explore how its spatial extension varies in mental representations, the qualification of this space by students and migrants and the variation of its internal spatial structure according to the functional flows linking European countries with the rest of the world. Contrary to section 1, this approach is now clearly Eurocentric as we assume the existence of Europe, but we remain critical, as in most of the analysis we confront the visions of different countries located inside and outside the European Union.⁴

2.1. Subjective limits of 'European' territory

When we analyse the most popular name for the regions drawn, including Brussels (Figure 2), 'Europe' is a clear winner (44 %), followed by 'Eurasia' (2.2%), Western Europe (2.2%), and the 'European Union' (2%). This suggests that in mental representations at the world level the European region is seen more as an objective natural fact, a continent rather than a political object. This frequency of usage of 'Europe' as a name for this region allows us to focus on the name. We then select all the regions named 'Europe' by students and map them. Regional drawings are gathered according to the place of survey: students from old European Union members (France, Belgium and Portugal), new members (Malta, Hungary, Romania and Sweden), neighbouring countries (Moldova, Tunisia, Egypt, Turkey and Azerbaijan) and remote countries in a European perspective (India, Brazil, China, Russia, Senegal and Cameroon) (Figure 7).

The shape and membership values of the region 'Europe' vary significantly depending on the place of survey. The new member state drawings seem the most restrictive and least fuzzy as the extension is smaller and discontinuities sharper in the inclusion of Europe. The old EU members have rather a similar mental representation, even if it extends further. Conversely, neighbouring countries and remote countries have a larger vision of the possible extension of 'Europe'. The 'Europe' region also appears fuzzier here, particularly in the east, as the inclusion value decreases slowly and Russian territory can be significantly included in Europe, particularly the remote countries. To deepen those differences of representation, four places of survey have been tested to compare their co-inclusion in 'Europe': Brussels, Moscow, Erzurum (Turkey) and Sfax (Tunisia) (Figure 7). The figure confirms the trend observed on the maps as far as the variability inside the sample is concerned. The inclusion rate of Moscow grows according to countries' distance from the core of Europe: the students from remote countries are those who include it most often. The figure is quite similar for Erzurum.

⁴ The reader will notice the use of the term 'European Union' instead of 'Europe' here. We are indeed unable to allocate a precise limit to Europe and we use European Union as a *proxy* of Europe in order to obtain a *provisional* definition of what is inside and outside 'Europe'.

Figure 7: Extension of the 'Europe' region in world mental maps

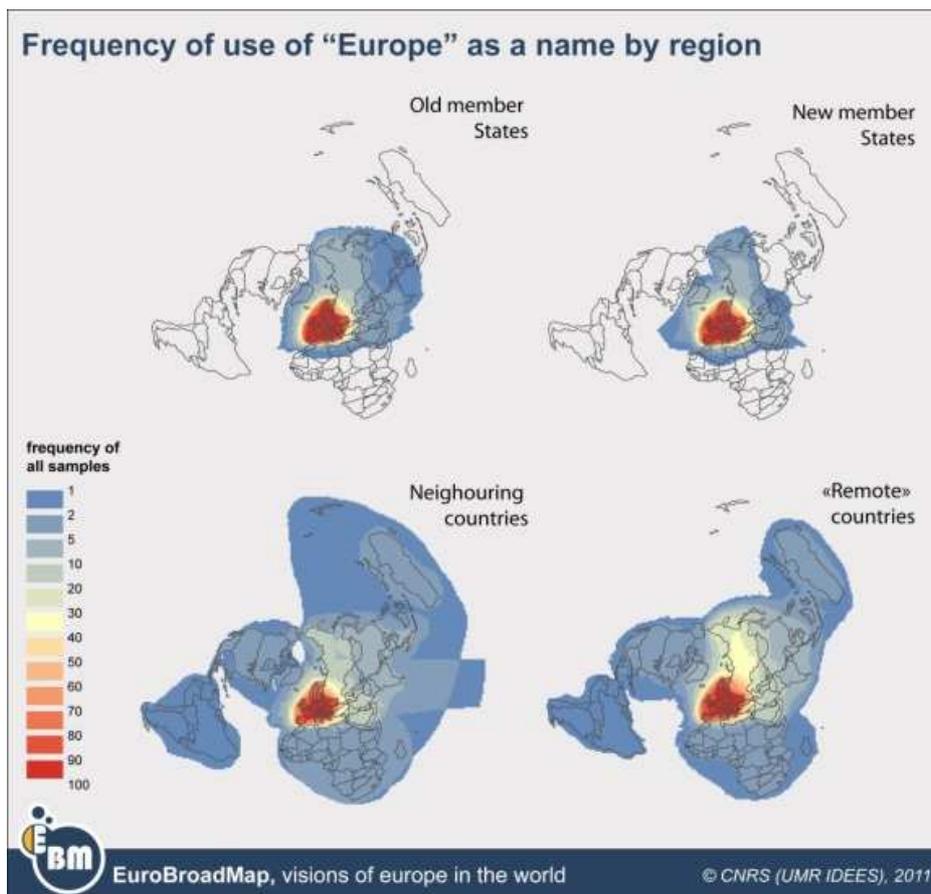
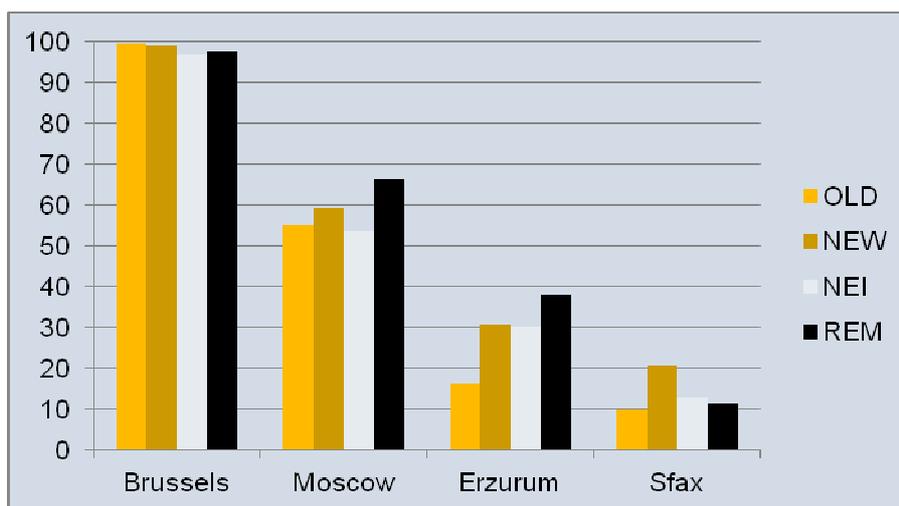


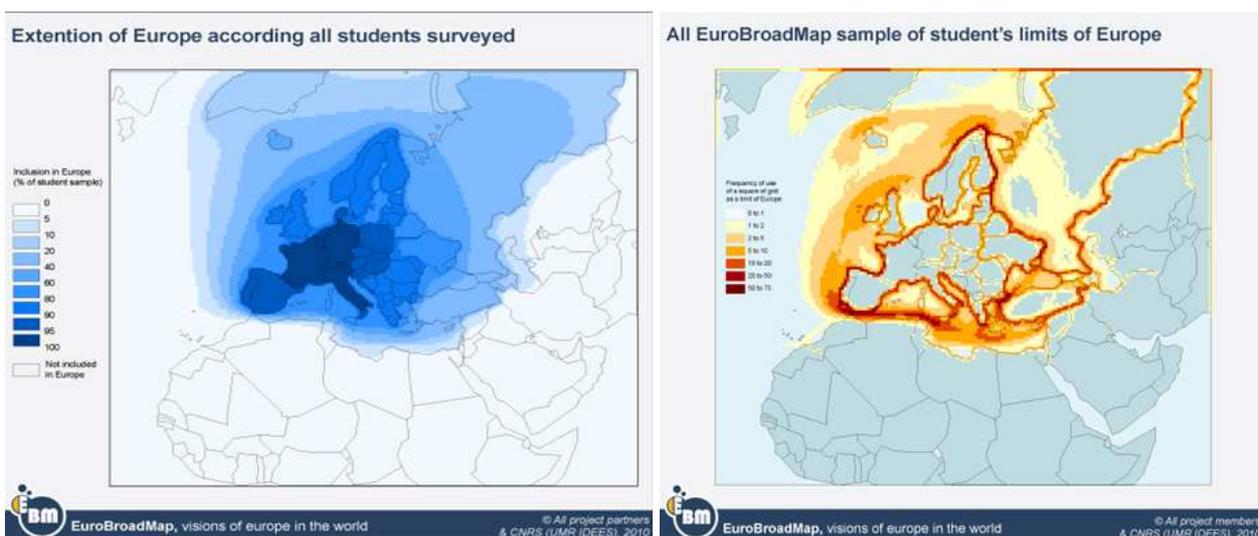
Figure 8 : Variable inclusion of four cities in 'Europe' according to students' place of survey



We deepened the focus on Europe by asking students to draw the limits of Europe on an enlarged Europe map. Figure 9 shows the frequency of inclusion in Europe of each square of the grid for the entire sample. The modalities of the extension of Europe are quite different, depending on the direction. This map shows a clear gradient of inclusion-in-Europe that could be interpreted as a kind of gradient of 'europeanity' (Lévy, 1997). It covers mainly Western Europe and particularly the six

founder states of the European Union (France, Germany, Belgium, Luxembourg, the Netherlands, and Italy), for which the inclusion frequency is 95%. It extends toward the Iberian Peninsula and some countries from Central Europe (Poland, the Czech Republic, Slovakia, Austria, Hungary, and Slovenia). Then it weakens slightly to the West (Ireland and the UK), to the North (Scandinavia) and especially to the East, where many new EU members are in an intermediate situation (with an inclusion frequency between 60% and 80%). This configuration shows a distinction between an inner circle and a more distant periphery, which strangely enough includes Greece at the same level as Bulgaria or Romania. The Russian Federation and Turkey are included less often in the vision that the students have of Europe, with a frequency level of inclusion between 20% and 40%. The analysis of the limits drawn by the students provides another vision of the same phenomena (Figure 9) but it stresses that the mental representation of European limits is quite different, depending on the directions. The Mediterranean Sea is clearly perceived as the southern European boundary. If the Atlantic Ocean is a clear barrier, its inclusion is frequent for the UK, but less so for Iceland. In the eastern direction, the Russian Federation and Turkey clearly divide our sample of students. This corresponds with the textbooks as regards both inside and outside the EU.

Figure 9: Average extension and limits of Europe drawn by undergraduate students from 18 countries



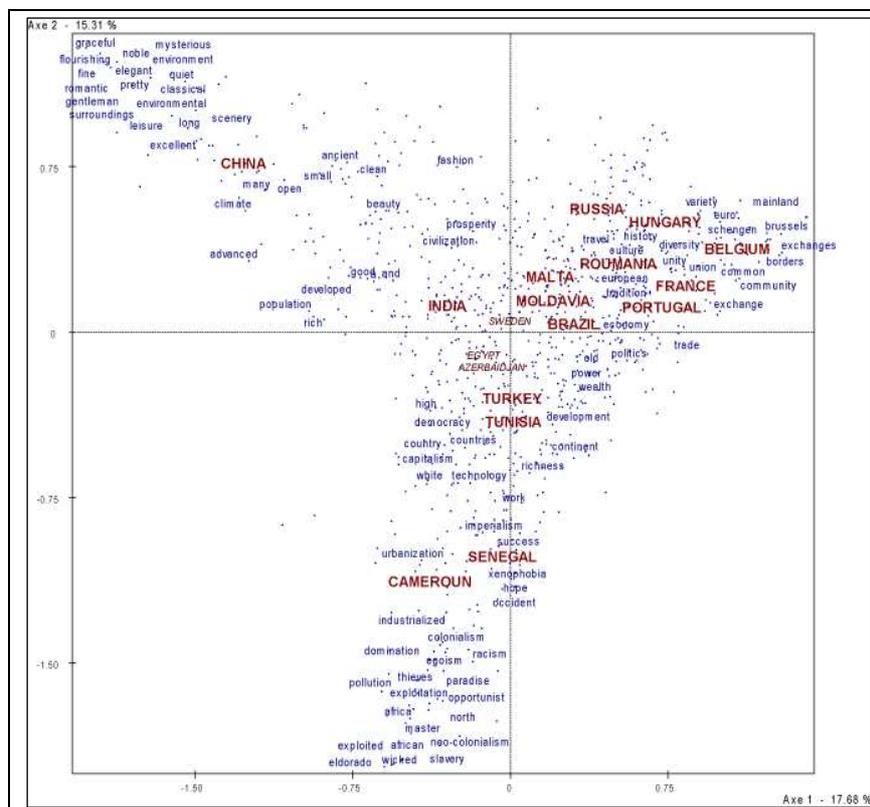
2.2. Discourses about 'Europe'

As seen previously, the mental representation of European territory's shape and extension varies. The words associated with 'Europe' also vary according to the place of survey, but the representation of Europe varies according to the position of migrants in the migration path.

The general attractiveness identified before is clearly highlighted when we analyse the words chosen by students to qualify Europe. Although some specificity exists regarding academic fields, socio-economic background, gender or place of survey, on the whole, Europe is perceived as a rich, wealthy, powerful and pleasant place.

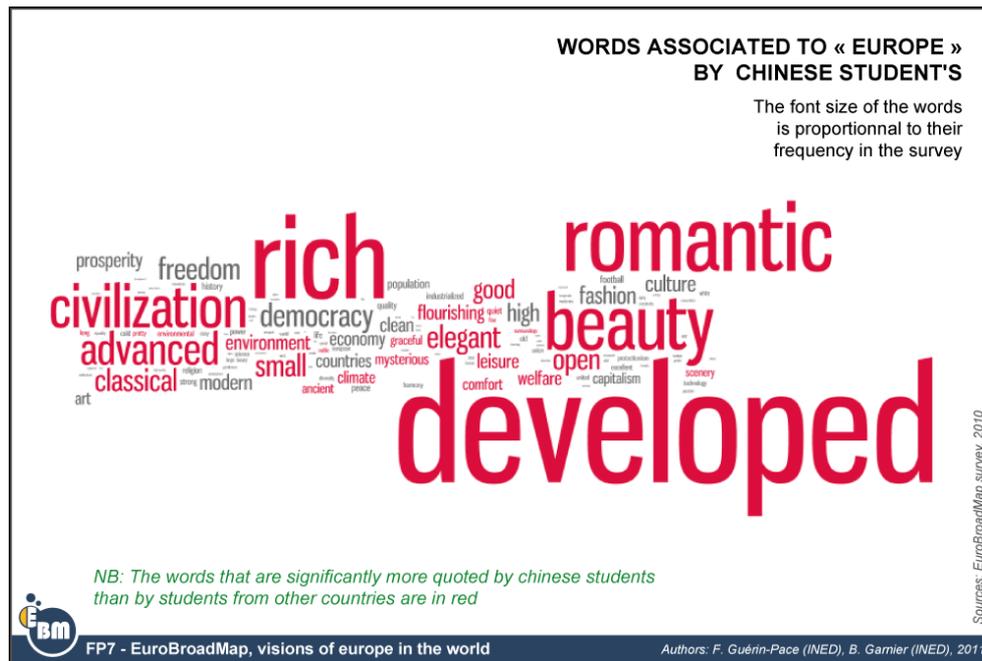
Some strong common semantic fields in the Europe definition can be observed both in the vocabulary used to describe Europe and in migrants' discourse on Europe. Analysis of this common pattern shows that three main schemes of interpretation may be distinguished regarding the representations of Europe: A 'European-institutional' one, a 'developmentalist' one, and an 'imperialist' one (Figure 10). The 'developmentalist' and 'imperialist' themes also recall the historical position of Europe in the world. Some references to 'freedom' can also be seen as both a reference to the current situation of the European people and as a reference to the philosophical and political past of some European countries (Britain's habeas corpus; Enlightenment Age, French Revolution, etc...). The 'institutional' vision of Europe is a dual one, however, and the emergence of Europe as an institution is a recent event. Moreover, students express it differently according to the place in which they live: students from Belgium and France clearly refer to the European Union institution (Schengen area, Euro, etc...), whereas non-European students and migrants refer mainly to the migratory policy of the European Union. Indeed, a gap exists between inside and outside perceptions. Inside the EU countries surveyed, Europe is mostly described in positive terms, and the frequency of words related to political construction seems to indicate that Europe and the European Union are almost synonymous. Outside EU countries, the picture is more balanced. Racism and xenophobia clearly appear in sub-Saharan representations; Europe suggests a museum to Chinese students or an economic power to Indian ones, and the European Union as a political object is rarely mentioned.

Figure 10 : Factorial plan derived from the vocabulary analysis



As regards the results of the undergraduate student survey, words associated with Europe can be positive or negative but are certainly not related to power. 'Power', when it is mentioned, is related to economy, development and wealth and generally carries negative perceptions (imperialism, colonialism). In an outside country, the term 'European Union' or 'power' may simply be absent. The words most frequently used by the Chinese students show the 'political acting' of the EU largely remains an internal discourse (Figure 11).

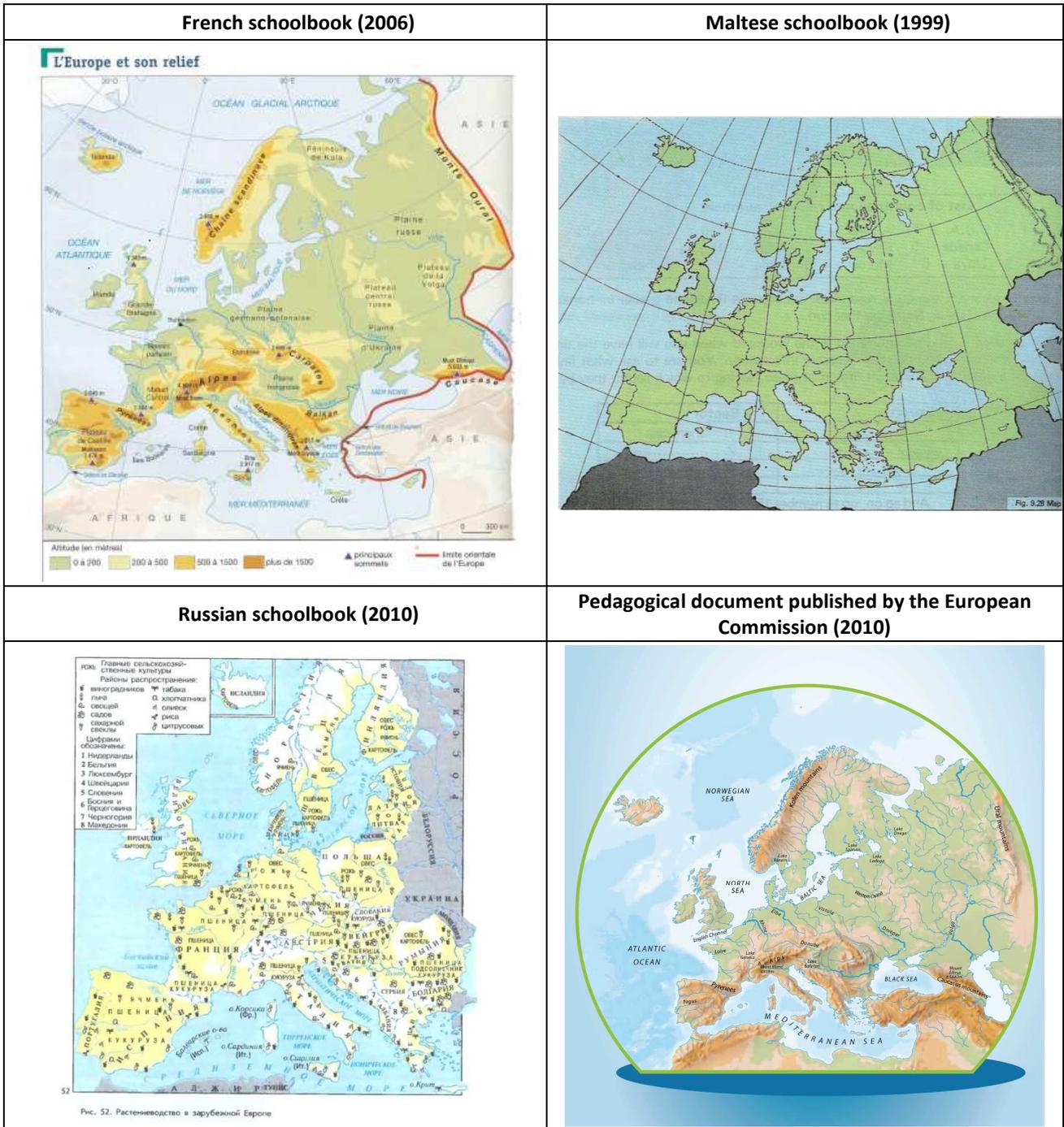
Figure 11: Words associated with 'Europe' by Chinese students



2.3 Teaching Europe

When textbooks from both the EU and outside it, are examined (Brennetot, 2011), Europe is classically seen as a 'natural continent' and/or as the cradle of civilization. Maps and figures exclusively focus on a natural perspective (climate, relief, etc.). The European Union on the other hand is mainly presented and studied in European Union member states (Figure 12). The analysis performed, especially on figures and maps, shows that EU is mainly considered as a collection of states and attractive places. Although its economic power is frequently cited, its political role remains evasive or absent.

Figure 12 : Europe in school books from different countries



3. From static representations of 'Europe' to dynamic visions of the European Union

At this point of the demonstration it is necessary to modify completely our initial point of view and to replace the static and fuzzy notion of *Europe* with the dynamic and precise political object called the *European Union*. Up to now we have been looking for 'something like Europe' in the mosaic of world regions (part 1) or have tried to delineate and qualify what was associated with the word 'Europe' (part 2). Through this kind of approach, we adopted a non-historical perspective wherein Europe was considered as a kind of forever-existing reality in past, present or future, something like Huntington's civilization.

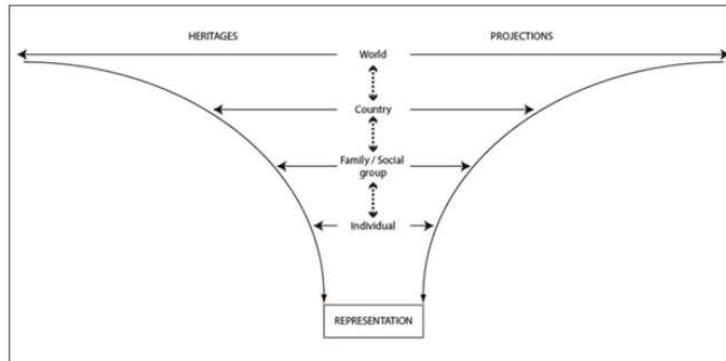
Moving our focus from Europe toward the European Union has reintroduced time in a static approach because the European Union is a historical object whose definition changes through time, both in geographical and in institutional terms. It is difficult to analyse changing representations of 'Europe' through time because this notion is at the same time fuzzy, not precisely defined but considered as beyond debate in terms of existence. We have seen in part 1 that, whatever the methods or criteria we used, it was always possible to define a piece of the world called Europe. We therefore suspect that the assumption of the existence of Europe is unfalsifiable (Popper, 1959) and that it is more a subject for metaphysical research programmes than positive science. It would be more difficult to prove that all geographical objects assimilated to 'Europe' in part 1 really fit with the European Union, and we could easily propose objective criteria to measure the correspondence between a given region of the world and the limits of the EU at different periods of time.

The enlargement of the EU from six members to 9, 10, 12, 15, 25 and 27 between 1959 and 2007 offers a fascinating basis for the analysis of internal and external representations because we can evaluate the differences between old members and new members, and more generally evaluate the impact on mental representations of concrete policies related to border issues like control of illegal migration, cooperation with neighbours, external trade policy, etc.

3.1 Changing mental maps of the European Union through space and time

Mental maps and representations are social processes with their own slow temporality. To try to take into account the multiplicity of 'social' factors that contribute to explaining the variation in the representation of Europe in the world in terms of both knowledge and appreciation we developed a strong hypothesis: the variation in the representation of European Union can be explained by the different 'socio-spatial positions' of the individuals investigated. These 'socio-spatial positions' are not reduced to one's socio-economic status but are understood here as the multiple interactions between the four levels of social reality: the world level, the country (collective) level, the family (or social group) level and the individual level (Figure 13). For each level, the timescales of phenomena that influence the representation are quite different but these should be considered in terms of both the past (heritage) and future (perspectives).

Figure 13: Space-time scales of elaboration of social representations



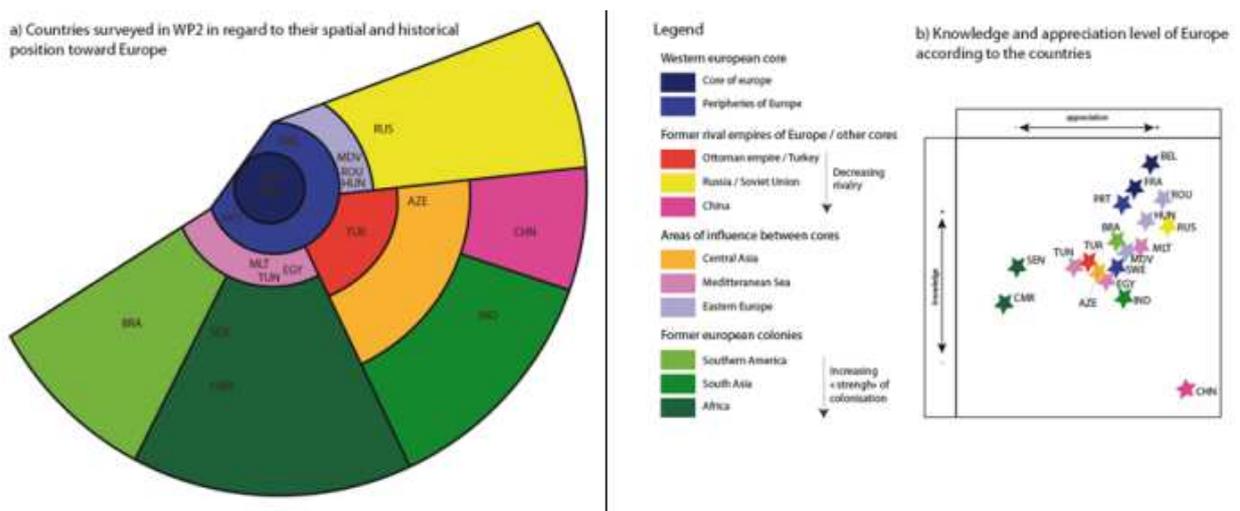
Changing perception of the European Union at individual level: the 'Migrants and borders' survey analysed the evolution of the representations accompanying migrants' trajectories, from potential migrants to migrants in transit countries to settled migrants in the European Union. Three migratory roads have been investigated: the Mediterranean one, from Africa to Europe; the eastern one, from India to Italy and in Romania; and the Atlantic one, from Argentina to Spain and France. This method allows us to see the visions of the European Union as continuously evolving in connection with the concrete social situations in which they are embedded. Representations evolve from a blurred vision of the European Union (where the words used by migrants can be imprecise and where they sometimes use names of countries or towns to refer to the European Union as a whole) to a more precise vision alongside the migration trajectory, correlated with contacts with friends, relatives, associations and other migrants and with the experiences of institutions and administrations in charge of the regulation of migrations. In many cases the Schengen area rather than the European Union is the area of interest for migrants. The image of the European Union as part of a rich continent governed by effective social policies changes significantly between a migrant's initial departure and his/her settlement in the country of destination. This image and how it evolves centre on a comparison between the living conditions in the country of departure, those that the migration candidate imagines prevail in European Union, and those that he or she ultimately experiences as an immigrant.

Changing internal perception of 'Europe' according to anteriority of EU membership: the EuroBroadMap survey on undergraduate students is not directly able to provide information on the evolution of mental maps through time because it was realized for a single time period (October 2009 to February 2010) and could not be repeated during the lifetime of the project. It does, however, offer indirect clues to the historical dimension, for example when we analyse the difference of perception of students of EU countries according to the length of membership of their country. Looking, for example, at students' choice of five words associated with 'Europe', we noticed strong differences between students of the oldest member states (France and Belgium), who display a rather institutional vision of Europe, and students from the newest member states (Malta and Romania), who rely much more on historical and cultural dimensions in their choice of words associated with Europe (Figure 14). The situation is less clear for countries that became members in the meantime: the vision of students from Sweden (member of the EU in 1995) is closer to that of old member

(the richest and biggest countries are the most attractive), geographical distance (students are more attracted by near than by distant countries) and other forms of social proximity (common languages). The fact that these models provide relatively good predictions of the situation observed in 2009-10 suggests that mental maps are certainly more resilient than expected and not likely to change very quickly. If our assumption is correct, it implies that the effect of policies trying to promote external images of the EU are not followed by immediate effects. The reverse is true for negative external images: the dramatic images of migrants dying in Mediterranean Sea will not immediately modify the image of EU but can adversely affect its attractiveness at long term.

A model of EU perception based on a centre-periphery hypothesis has been elaborated in the synthesis report on mental maps perception (Didelon et al., 2011). In Figure 15, the countries surveyed are represented by a star coloured according to their spatial and historical situations in terms of the European core. They have been positioned on the 'knowledge and appreciation' graph on the basis of the main results of the analysis of the vocabulary used to describe Europe. In this synthetic figure, we can observe more clearly what was stressed in the various analyses, and more precisely how the relative positions of countries are influenced by their spatial and historical positions.

Figure 15: Knowledge and appreciation of the EU according to geographical and historical distance



3.2 Changing limits of the functional and diplomatic areas of influence of the EU

Differently from mental maps where the survey was available at a single point of time, the analysis of world divisions based on functional flows (air, trade) and diplomatic links (embassies, common vote at UNGA (United Nations General Assembly)) could be repeated at three different time periods in 1985-89, 1995-99 and 2005-09. It is therefore possible to compare the evolving influence of the EU in the world during a period characterized by major political events (collapse of the socialist bloc and USSR in 1989-91) and also the deep structural modification of demographic and economic equilibrium with the growing importance of big emerging countries like China, India, Brazil or

Southern Africa at the beginning of the new century. Such major transformation of the geopolitical map of the world has necessarily had an impact on the perception of the EU, especially if we consider the fact that this period was characterized by major shifts in enlargement from 12 to 15 members in 1995, 15 to 25 in 2004 and 27 in 2007.

In order to evaluate these transformations, we adopted an 'EU-centric' approach by measuring the similarities for each criterion between the countries of the world and the nine West European countries that have been members of the EU since 1973⁵ (for more details, see Grasland C., De Ruffray, Didelon C., et al., 2011). Using the same classification method for each period, we define four types of relations between world countries and the EU (Box 1).

Box 1 : Type of relation with the EU

Type A: countries positively correlated with EU9 in both functional and diplomatic terms. A good example of this situation is given by Turkey or Switzerland which are not currently members of the European Union but present all the signs during the whole period of study (1985-1995-2005) of full integration with EU9 as regards their trade exchanges, air flows, diplomatic networks and voting behaviour at UNGA.⁶

Type B1: countries positively correlated with EU9 in functional terms but negatively in terms of diplomatic criteria. The best example of this situation is given by countries of Northern Africa (Morocco, Algeria, Tunisia, Libya, Egypt) that appear during the whole period as characterized by preferential trade or air relations with countries of Western Europe, even if both functional criteria are not always equally fulfilled. These functional linkages are not confirmed by diplomatic linkages because these countries develop specific network of embassies different from those of the EU (e.g. Israel) and because their pattern of voting at UNGA makes them clearly members of the 'non-Western' bloc.

Type B2: countries positively correlated with EU9 in terms of diplomatic criteria but negatively in terms of functional relations. The USA, Canada, Australia, New Zealand, South Korea and Japan are the most obvious representatives of this situation during the whole period. Despite their distance from Western Europe, they are clearly characterized by a common pattern of embassy networks and a common attitude concerning voting at UNGA. They are also engaged in other regional networks when it comes to functional relations measured by air or trade flows and therefore exhibit the opposite characteristics to North African countries.

Type C: countries negatively correlated with EU9 in both functional and diplomatic terms. This situation is typically observed in large emerging countries like China and Brazil but also more generally in remote countries with few connections with Europe like the Philippines and Indonesia. It can also be observed in countries that had strong historical link with Europe but are currently more polarized toward the competing cores of North America and Eastern Asia like Mexico and Saudi Arabia. This is the opposite situation to type A.

Western European relations in the world at the end of the Cold War (1985-86)

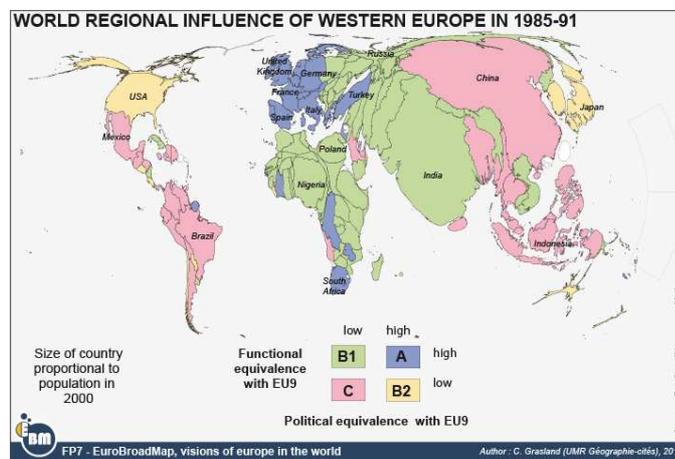
The core of the European region at the end of the Cold War is clearly determined by the political division between socialist and capitalist countries (Figure 16). The enlargement of the EU to 15 members in 1995 appears as the logical consequence of strong functional and diplomatic integration, and the exceptions of Norway and Switzerland are only apparent if we consider that their proposal to join the EU was not acceptable to their citizens. The case of Turkey is the most interesting because opposition of citizens did not apply and it is rather the opposition of existing members of the EU that has delayed its accession: the reasons are officially related to human rights but they are also strongly evidenced in the mental map and the feeling that 'Turkey is not European' despite its obvious association in both functional and diplomatic terms. In this core, we see a wide area of functional integration that covers the major part of Africa, the Middle East, and Central and Southern Asia.

⁵ France, Belgium, Luxembourg, the Netherlands, Italy, Germany, Denmark, the United Kingdom and Ireland.

⁶ In the case of Switzerland, it is of course not possible to evaluate votes at the UN before admission in 2002. Therefore the level of diplomatic correlation is evaluated only for embassy networks in 1985 and 1995.

Despite political opposition, strong commercial links still exist with the countries under Soviet influence and the colonial tie remains important in other parts of Asia and Africa. Diplomatic linkages are also important with the USA and other rich OECD countries that are both economic partners and allied against the Soviet Union. There are very few countries that can be considered as weakly linked to the European Union at this period: they are found mainly in South America (with some exceptions like Chile) and South-Eastern Asia (with the exception of the Indochina Peninsula). On the whole, **Europe has a considerable influence on the world if we consider aspects of both functional and diplomatic linkages**. This influence relates largely to the strong historical links between Western Europe and most of the world. Despite the weakness of Europe as a political actor during the Cold War, it remains a major actor in the world because of the dependence of many regions of the world on the European economy.

Figure 16: World regional influence of Western Europe in 1985-91



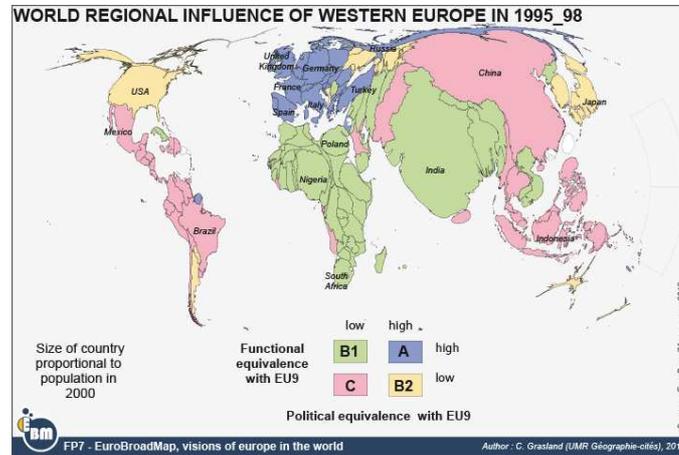
European relations in the world during the period of reunification (1995-98)

The main important trend of this period is the development of both functional and diplomatic links between Western and Eastern Europe, including Russia and former republics of the Soviet Union (Figure 17). The diplomacy of West European countries and private firms interested in relocation to low-cost countries has been very active in this period in terms of both functional and diplomatic integration, clearly visible in the extension toward the east of the previous core. In both cases, the perspective of enlargement has been a powerful tool of unification with clear effects of anticipation: private firms were attracted by the future opening of the borders and Eastern and Central European States also reoriented their diplomatic links in order to obtain a ticket of entry into the EU. In the case of former republics of the Soviet Union, many of them remained strongly linked to Russia by means of their trade relations but tended at least to develop diplomatic linkages with Western Europe, at a period when Russia also deepened its linkages with the European core. The former Yugoslavia was obviously less concerned by the trends because of the civil war.

As regards this area of strong integration, no major changes are visible at first glance. Some countries previously characterized by functional integration have moved to the group of minimal European influence but they number only a few (Angola, Gabon, Pakistan). The countries characterized by diplomatic correlation are almost the same if we ignore changes in Latin America

(exchange of position between Chile and Argentina). On the whole, **the situation of Europe in the 1990s is characterized by an extension of the core area toward the East and a relative stability of diplomatic and functional relations with the rest of the world.**

Figure 17: World regional influence of Western Europe in 1995-98

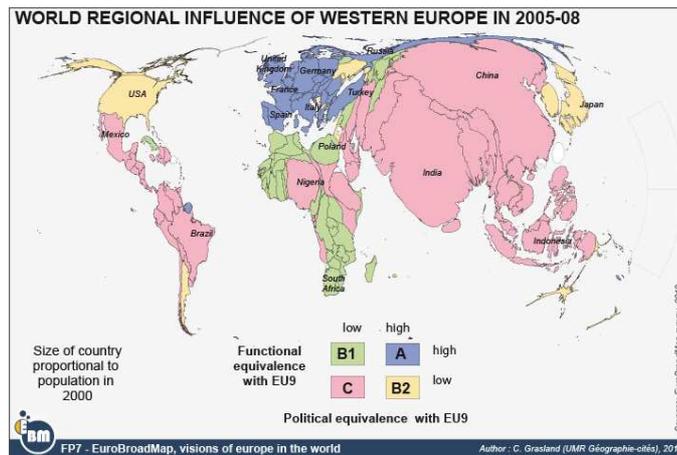


Shrinking European relations in the world in the contemporary period (2005-08)

Between the mid-1990s and the mid-2000s, we see a major shift concerning the EU’s influence in the world. Differently from the 1990s, no major changes can be observed in the limits of the core area characterized by strong diplomatic and functional links (Figure 18). This core is now clearly delimited by the Mediterranean Sea toward the South and by Turkey and Russia toward the East. Yet these latter two countries are not necessarily allied with the EU in terms of future world competition even if they are strongly linked to it by air and trade flows and by common diplomatic patterns. Russia has gained new influence with the increase of energy prices and is interested in the building of new links with China and Japan in order to reduce its commercial dependence on the EU. Turkey is growing increasingly tired of the delay in its accession to the EU and has started to develop a new geopolitical concept of autonomous core countries, taking advantage of its strategic position. Moreover, the two countries are trying to balance their relations. The map clearly demonstrates the erosion of the EU’s influence in Africa, the Middle East and Southern Asia where major countries are now classified in the group of countries weakly linked with the EU in both functional and diplomatic terms (Nigeria, India, Vietnam, Iran ...). Even if diplomatic relations are apparently more stable, this erosion of the EU’s influence is a major issue that has to be related to the questions of enlargement and neighborhood policy..

On the whole, **the situation of Europe in the 2000s is characterized by stabilization of the core area but a clear decline in its world influence in functional terms, especially in Africa, the Middle East and Southern Asia.**

Figure 18: World regional influence of Western Europe in 2005-08



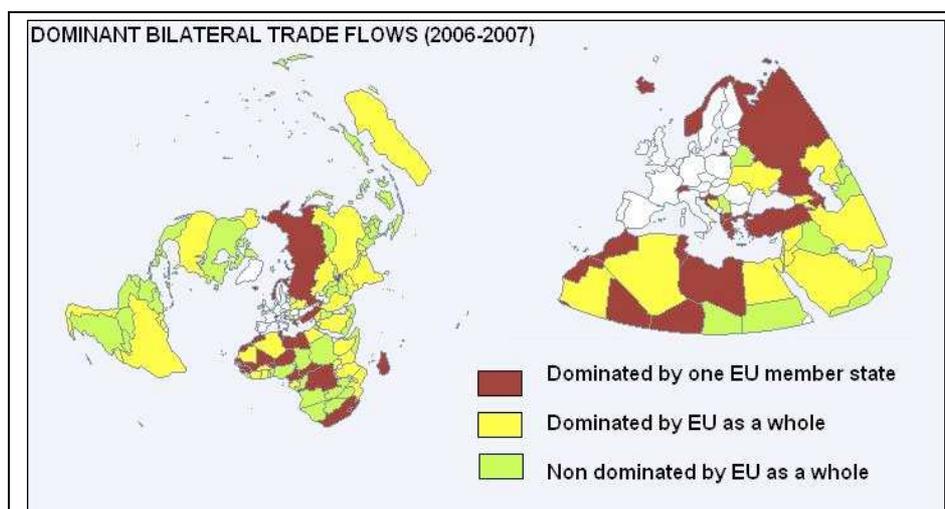
Conclusion

The previous section has focused on the past dynamics of the European Union but many of the EuroBroadMap project results can also be used for a perspective on the future of the European Union. To illustrate this point, we develop briefly some examples of potentially high political interest for the debate on the future of the EU.

The cost of a non-Europe

As a very simple but illuminating example we have applied the method of dominant flows to bilateral trade exchange in 2006-07 for the case where the EU exists (and is considered as a single economic entity) and the case where the EU no longer exists and is divided into 27 autonomous states developing their own strategy in terms of external barriers or bilateral agreements. In the framework of the dominant flow method, it is considered a major advantage to be the first partner of another country of lower status in terms of trade exchange. The main traders are therefore the nodes of a hierarchical network that forms a tree of domination. In this situation, the country size is crucial and whether the EU is unified or divided has serious consequences, as illustrated by Figure 19.

Figure 19: Simulation of dominant bilateral trade flows 2006-07 with or without EU



- **Countries in green are never dominated by the EU or by isolated EU countries.** This means that their main trade partner represents a bigger share of their trade exchange than the EU. Typical examples are countries like Canada or Mexico that exchange more with the USA than with all 27 countries of the EU.
- **Countries in brown are dominated by isolated EU countries.** This means that even if the EU did not exist, the main trade partner of these countries would be a former member of the EU. Typical examples are Russia and Turkey, whose main trade partner is Germany at world scale. The same is true for Tunisia and Morocco, whose main trade partner is France.
- **Countries in yellow are dominated by the EU as a whole but not by an isolated EU country.** They represent therefore the 'added value' of the EU in terms of economic power as far as trade exchanges are concerned. A typical example is China, whose main trade partner in 2006-07 was the EU (considered as a whole) but would be the USA if the EU did not exist (and would be replaced by a set of 27 independent countries). This situation is verified for the majority of dominant countries of the world (Brazil, India, China, the USA, Australia) and major energy producers (Saudi Arabia, Algeria, Iran).

Internal divisions of the EU between East and West

Using the flows and network approach, we can also take a different perspective and highlight the spatial divides within Europe. In this perspective, many analyses show the importance of an East/West divide which largely corresponds to the Iron Curtain, although Germany might act as a pivot between both parts. Central and Eastern European countries, however, do not necessarily show a strong internal coherence but are highly polarized by West European countries, though maintaining some privileged relations with their big Eastern neighbour. Many analyses also highlight the coherence of Northern countries (Denmark, Finland, Norway and Sweden). Conversely, the Euro-Mediterranean area is never identified as such in our analyses.

Finally, many analyses highlight a sort of dual Europe. On the one hand, Europe is a rather strongly integrated area in terms of economic, human, and even diplomatic flows. On the other hand, it appears as much less coherent when it comes to external flows of European countries: cultural and

historical links, economic links, and common diplomatic interests illustrate a very diverse Europe with regard to extra-European relations.

This internal division of Europe by flow seems quite coherent with some results of the mental maps of students and migrants. In mental maps of Europe it is quite clear the most integrated countries in 'Europe' are western ones and the inclusion level roughly starts to decrease at the former Iron Curtain border. Moreover, for migrants, reaching Romania in the migration path is only a first step before the final objective 'Europe'.

Does Europe exist as a political actor?

Substantial literature already exists regarding the 'acting' of the European Union on the world scene, and even a short synthesis of the discussion among scholars would overtake the purpose of this report. The number of political scientists is quite low in the EuroBroadMap project, so we chose to develop an alternative approach. We adopted an empirical approach and focused on Europe Union behaviour and perceptions in different international arenas (namely the United Nations General Assembly (UNGA), the World Trade Organization (WTO), and NATO). We also examined how national actors (states) choose to present Europe and the European Union in their textbooks. Finally, words used by students to describe Europe were also examined.

Considering Europe's perceptions in international organizations such as the United Nations General Assembly (UNGA), NATO or WTO, the situation is quite interesting. In such arenas, Europe is synonymous with the European Union. The EU is seen at the same time as an important actor, from both political and economic points of view, but not as a power (hard or soft) *stricto sensu*. The EU is mostly described as a 'would-be power'. The image of the EU is based on a self-perceived moral superiority that is clearly not accepted by external partners. One of the main teachings of these studies is that the strong political cohesiveness of the EU – even if France and UK often play *cavaliers seuls* at UNGA – tends to decrease its potential and wished-for influence. The coordination process is so hard and time-consuming that texts and decisions taken at 25 or 27 member states cannot be negotiated with external actors. The EU is clearly seen in most international institutions as an important but inflexible actor (and as a major contributor), defending positions without any ambition. Finally, results regarding European Union action and its perception by international organizations confirm previous studies and can be readily summarized:

- the internal cohesiveness of the European Union increased over time and, on nearly all subjects, it is able to 'speak with one voice';
- recent EU members and candidate states are the leaders of this cohesiveness; acting and voting as the EU appears as a strategy to show their goodwill;
- obtaining common positions on nearly every subject is a time-consuming process that prevents fruitful dialogue with other regional organizations, even when these organizations are like-minded (CANZ – Canada, Australia and New Zealand at UNGA);
- although the EU speaks with one voice, reception of its discourse remains hostile. The EU is frequently suspected of double standards, promoting acts it does not intend to adopt (human rights position versus migration policy).

In conclusion, we'd suspect that the 'political power' of the EU is mainly a narrative developed by EU institutions in order to sell the EU project to its citizens. Even if selling the EU project was first done with the 'continent without war' idea, this narrative is no longer valid for young generations. Selling the 'economic power' discourse is becoming difficult these days, so developing a narrative on 'normative influence' and 'political power' appears to be a reasonable rhetorical strategy. But facts do not always follow rhetoric...

Potential impact

In Annexe I of the EuroBroadMap project, dated 14 November, 2008 (pp.77-82), several potential impacts of the project were described. From a scientific point of view, the main objectives were to enhance the state of the art in the field with the contribution of various disciplines and area studies and to enhance cooperation between researchers in Europe and in the regions and countries under analysis. From a political and more general perspective, the main objectives were to devise and test strategies to inform the media and public debate in Europe and/or the areas under analysis, to evaluate European Union attractiveness regarding the Lisbon Strategy, and finally to determine the respective area of interest, area of influence and area of responsibility of the European Union.

Scientific impact

Progress in analysis of mental representations of the world ⁷

Moving beyond the more usually studied intra-urban (Lynch, 1960; Cauvin, 1999) and regional (Gould & White, 1997; Frémont, 1976) scales, our approach is based on the hypothesis that the world level is a subjective space. This hypothesis may, however, seem paradoxical. Indeed, one's knowledge of a space is related to the cognitive effort to make. The latter is defined as more important when the 'distance' increases (Moles & Rohmer, 1978). The world is then the most difficult level to understand. This assertion is however increasingly questionable as the world can be, at least theoretically, understood through the filters of education, television, the internet and newspapers (Paulet, 2002). Indeed, a general knowledge of the world is now as easy to gain as a general knowledge of one's own country or region. Therefore, albeit the knowledge of spaces close at hand relies mainly on experience, knowledge of remote spaces is made easier thanks to the availability of a multitude of new information sources, many of them numerical.

From a theoretical point of view the survey proves that the world scale is actually perceived as a subjective space: students seem to have a general knowledge of the world when deciding how to divide it into specific regions.

From a methodological perspective, the preliminary results obtained from the use of the fuzzy logic approach in relation to world interpretative mental maps thus appear to be quite promising. They allow the identification of 'hard' and 'soft' continents (Gataloup, 2010) where membership values for a single zone are high while also localizing and characterizing overlapping and indeterminate areas.

⁷ It should be recalled that the survey on undergraduate students' visions of the world faced many issues that delayed its realization. What is written in this section, especially regarding the scientific aspect, is therefore a minimalist version of the work done. Actually, several papers submitted have not been reviewed yet and the list of publications targeting different audiences will increase in the coming months.

This methodological approach is quite interesting because it allows us to build a world level map of regional representations that stresses that regional borders are more or less blurred in the representations. It may also prove fruitful to explore the reasoning behind the construction of world regions and to compare them with the world region patterns that already exist. Perhaps of particular interest in this respect would be a comparison of the results produced here with other rather sharper divisions such as that made famous by Huntington. As noted by Montello (2003) the setting of such regional borders is in itself an exercise that implies vagueness; the approach suggested here however allows us to identify variations in the vagueness level in space and will be further enriched to help us explore the factors that can explain this vagueness distribution. This method allows quite interesting perspectives to be developed from both a methodological and a theoretical point of view.

Another methodological point explored is the analysis of the toponyms, i.e. the name given to the region both in terms of the semantic field and the fuzziness level of the vocabulary used (Didelon, Emsellem, de Ruffray, 2012). We implemented a method to measure empirically the fuzziness level of the words used and to compare it with the fuzziness level of the corresponding region drawn that reveal quite efficient and allow assessing that some spatial representations are less fuzzy than their names suggest. This exploration, still in progress, is a clear scientific advance in the understanding of how the world is known and named.

Progress in analysis of flows and networks

Network analysis in geography focused for decades on technical networks (roads, railways) and barely used tools developed in the 1970s by sociologists (Beauguitte & Ducruet, 2011). Whereas political scientists and specialists in international relations overwhelmingly applied methods from social network analysis (Snyder & Kick, 1979), the absence of geographers from this field of research was marked. Conversely, geographers who participated in the EuroBroadMap project made great use of tools, methods and concepts in order to highlight the relational properties of states on a world scale. For example, network visualization appeared as a powerful way to reveal structures and clusters.

This does not mean that the strategy was an imitation one: an extensive review of existing literature on the subject, and a long discussion regarding relevance of the different tools, accompanied this research. Many measures developed in social network analysis are designed for inter-individual relations, and their adaptation to a state-to-state approach was first examined and tested.

The decision to use open-source software packages, and especially R (statistics), allowed us to innovate in the field of social network analysis, and Claude Grasland proposed a new method of clustering based on structural equivalence for valued matrixes (Van Hamme & Grasland, 2011). Using open-source software in this case allows other researchers to test, criticize and (it is hoped) improve the method and algorithm proposed. Several other methods were fruitfully used from a network analysis perspective (Intramax, centrality measures, principal component analysis, dominant flows...) and the comparison of results obtained with these different methods constituted a strong

empirical validation of our conceptual hypothesis regarding conflation between Europe and the European Union.

The work done to use and adapt methods developed in other academic fields represents considerable progress in terms of inter-disciplinary dialogue.

'Europe' as an epistemological and political obstacle to the EU

One of the most important outcomes of the EuroBroadMap project from both scientific and political points of view has been the exploration of the consequence of the frequent confusion between 'Europe' and the 'European Union'. In the concluding event of political diffusion of the results of the project (Brussels, RPFUE, 6 March, 2011), we demonstrated that Europe was both a political and an epistemological obstacle.

The demonstration started from the discussion of four common visions of Europe as (1) a world economic centre, (2) a soft normative power, (3) a continent with borders and (4) a cluster of attractive places that seem to be complementary. The visions are in fact contradictory because they imply different definitions of the geographical area called Europe and different strategic choices concerning political priorities. We assume that the contradiction can only be solved if we abandon references to a mythic notion of Europe and replace it with a secular concept of the European Union. In this case, the problem is no longer a question of identity or so-called 'civilization' but a question of strategy and political choice to be debated by citizens.

In scientific terms, we consider that 'Europe' is an epistemological obstacle to the understanding of the European Union. In political terms, we could say as well that 'Europe' is a political obstacle, because it is at the same time very frequently used in political debate but never clarified, which fact introduces internal ambiguities and external perceptions of double standards.

The question of enlargement (fixation of final borders, accession of Turkey, attitude toward Arab revolutions, partnership with Russia and the USA, priorities of neighbourhood policy toward East and South...) is clearly at stake here, as are the attitude of the most powerful member states (Germany, France, the UK, Italy, Spain, Poland, ...), which are more and more prone to doubts about the opportunity to maintain a common win-win strategy at EU level and to adopting selfish strategies under the assumption that the world economic crisis has introduced a zero-sum game with winners and losers. What we suggest is therefore exploring different strategic paths for the future of the European Union which are derived from the same common assumption that 'Europe' is not a relevant concept and that only the European Union has to be introduced into the debate.

We also presented at this conference different political options for the future of the EU, adducing fictive scenarios. These scenarios were considered mainly as prospective remarks to be validated by further research and analysis, but the most important point to consider was not the reality or probability of each of these scenarios but the fact that they were all based on the existence of a 'secularized European Union', not constrained by the myth of a 'forever-existing Europe'.

Our mission as researchers is not to decide between these scenarios, but simply to underline that citizens of the European Union could better decide on their future if they were aware of the different possible paths. The European Union needs a broader perspective on its position in the world and should elaborate roadmaps for a sustainable future. Our firm conclusion is that such enlargement of perspective implies a dramatic change in the current mental maps of EU citizens which will not be possible without a kind of farewell to the fuzzy and contradictory notion of Europe.

Social impact

A better awareness of the influence of gender dimension on world visions

Since the beginning of the EuroBroadMap project, the gender dimension has been explicitly taken into account, both in terms of internal governance of the project and in terms of examination of scientific results. We focus here only on this scientific dimension that has been carefully managed through a systematic gender review of documents delivered to FP7. This gender review has made possible many improvements to the results and also helped to correct formulations.

The most prominent piece of work, however, is the final synthesis on the overall gender perspective realized by IRMCo (Spiteri, Saïd & de Ketelaere, 2011) that summarized the discoveries made by the Gender Action Group of the EuroBroadmap project. This exploration of the gender perspective particularly relied on the results of the student survey conducted in eighteen countries across four continents. The results of the gender analysis outline the main differences that emerge in the answers given by both men and women. The authors argue that these differences point to the existence of a gender hierarchy based on a patriarchal hegemonic structure and provide added value to the interpretation of the discovery made in the analytical phase of research (Box 2).

Box 2: Two examples of gender interpretation of the results of the EuroBroadMap survey

Example 1: Why did women declare more 'global' feeling of belonging than men?

'The fact that a significantly larger percentage of women opted for the 'global' is hardly surprising, as Mills (2003) notes, as many women and men who provide transnational service labor are themselves pursuing globally undirected desires for class mobility and consumption (Mills 2003: 46). What this suggests is that women who feel a stronger sense of belonging to the 'global' could be expressing a desire to be more socially mobile and move away from local restrictions and restrictive domestic responsibilities, shaped by living in a patriarchal society. Incidentally, the choice of the 'global' may indicate a desire / hope for social mobility and better chances of employment abroad, or an alleviated status in their local community through employment abroad as well as a degree of independence.'

Spiteri & al., 2011, Gender Overall perspective, p. 9

Example 2: Why are women more attracted by France and less by the USA than men?

'France featured in students' top 3 choices for women in 15 countries and men in 10 countries, while USA featured in students' top 3 choices for women in 7 countries and men in 12 countries. France's popularity with women fits in with the previous comment of the idealised image of the liberated and modern woman, with access to new and ranging commodities, which is embodied in the portrayal of France as the fashion, romance and shopping capital of the world. In the case of men the choice of USA fits the idealised image of the USA as technologically advanced, a powerful military, political and economic entity. The latter seems to be reflected in the overall tendency of men to associate Europe with words that denote power and development, a possible competitor to the US. In both cases therefore, men and women's

choices support common gender stereotypes of most likely choices based on sex segregation, very much parallel to the choices of domain of study. Thus, gender is something one 'does' rather than 'is'(Ridgeway and Correll 2004: 516).

Spiteri & al., 2011, Gender Overall perspective, p. 11

By comparing the results of the survey with the results of research conducted on migration at the southern and eastern borders of Europe, as well as an analysis of school textbooks, national visions and global trade flows, the authors single out particular aspects of gender in socio-relational contexts that emerge across most of the country case studies and attempt to provide, where possible, explanations for the exceptions. In conclusion, the authors of the report argue that the results collected and the existence of a gender hierarchy are reflective of a persistent structure of inequality that in some cases mirrors colonial structures of control, which are still being replicated today.

A pedagogical toolkit: Terra In-cognita

Implemented in the project, the online pedagogic tool Terra In-cognita⁸ has been conceived as a collaborative website, made by scholars for teachers, than can evolve progressively in response to proposals made to it. It has two main objectives. The first one is to improve dialogue between scholars and teachers. Because secondary school teachers do not necessarily have easy access to the latest advances in scientific research, Terra In-cognita provides the scientific results of the EuroBroadMap project to help them to update their teaching material. The second objective is to improve dialogue between the European Union and the rest of the world. It can be used as a tool to disseminate knowledge and to improve public debate about Europe and the rest of the world.

Just a few elements serve to illustrate the collaborative dimension of the website. The name we chose can be understood in a number of languages. The website was developed by means of *Wordpress*, a free and open-source blogging tool and content management system. The website structure has been set up by a webmaster who also trained us to use this tool. We bought the domain name in the name of CNRS, the French public research institution.

The website structure is clear and simple and the different dimensions are interlinked. The website is currently composed of various menus, but it is possible to add new functions as required. A first part is dedicated to the presentation of the website and its goals and of the people who run it at the moment. It also contains guidelines for submitting a project. A second part presents the EuroBroadMap project.

Terra In-cognita is conceived as an integrated pedagogic tool. It proposes both **resources** for teachers and **activities** that can be done with pupils. One part is entirely dedicated to scientific updates, linked to the projects involved. It offers some explanations about specific notions or important concepts such as 'continent', details about theories or methods relevant to teaching and, more generally, all the epistemological innovations contained in the research project. These updates are presented in the form of small articles, prepared by the project partners. Some illustrations can be

⁸ <http://www.terra-cognita.fr>

integrated. A **final section offers some exercises that teachers can use with their pupils**. Two types of pedagogical activities are offered:

- various pedagogical suggestions including educational materials and questions
- interactive exercises directly usable on the website, such as the one already available called 'who wants to live where'? This interactive exercise has been built from the data gathered through the survey questionnaire.

Political impact

We have mentioned in the section 'scientific impact' that one major contribution of EuroBroadMap was the criticism of the fuzzy notion of Europe and the proposal to replace it with 'European Union' in both scientific activity and political action. Apart from this significant conclusion that 'Europe' is a political obstacle to the future development of the European Union, we should briefly mention the contribution made by the project in terms of four common political discourses on the position of Europe in the world. They are presented here in the form of analytical tables but were also issued as four-page illustrated documents during the political event of dissemination on 6 March, 2012.

Vision 1: Europe as a world economic centre

Initial vision	EuroBroadMap contribution
Europe, or more precisely North-Western Europe, has inherited from the colonial period a central economic position. Of course, nobody would actually claim that Europe is currently the single core of the world, but textbooks as well as political documents are still based on the storyline of the 'Triad' which claims the existence of a corporate domination of the world by three major economic poles located in Northern America, Western Europe and Eastern Asia. According to this vision, the main challenge for Europe is to maintain its inherited economic legacy and to face the challenge of other competitors (the USA, Japan) and new emerging economic powers (Brazil, China, India, Southern Africa). This section will discuss the accuracy of this vision on the basis of EuroBroadMap results.	EuroBroadMap results support clearly the hypothesis of the existence of a world economic region including all countries of the European Union but also countries covered by the European Neighbourhood Policy (ENP) and neighbouring countries like Russia. Until very recently, the 'Triad' was not a reality and the world was rather divided between two main functional areas: the Americas, Oceania and Eastern Asia versus Europe, Africa and Southern Asia. The analysis of recent trends, however, also demonstrates that the functional area dominated by Western Europe is quickly shrinking, in particular in sub-Saharan Africa, the Middle East and Southern Asia. We can assume that without creative effort through the ENP, this decrease of influence will spread toward countries of the Eastern and Southern Neighbourhood, particularly if EU members decide to focus on only one of these directions.
<p>Van Well L. and Reardon M., 2011, <i>The EU at the WTO</i>, FP7- EuroBroadMap , WP4: Politics and Ideology, 19p.</p> <p>Van Hamme G. and Grasland C., 2011, <i>Divisions of the world according to flows and networks</i>, EuroBroadMap, WP5: Flows and Networks, 67 p.</p> <p>Grasland C., de Ruffray S., Didelon C., 2011, <i>Regional Perspective Report</i>, EBM, WP6: Synthesis , 40 p.</p>	

Vision 2: Europe as a bordered continent

Initial vision	EuroBroadMap contribution
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The vision of Europe as a continent with precise borders is present since the origin of European Union in the treaties, particularly in the protocol that proposes to 'lay the foundations of an ever closer union among the peoples of Europe' and 'to eliminate the barriers which divide Europe'. The implicit assumption of the treaties of the EU is the fact that the European Union should extend as far as the borders of the geographical object called 'Europe'. Belonging to 'Europe' is indeed a condition of membership, as stated by art. 49: 'Any European State which respects the values referred to in Article 2 and is committed to promoting them may apply to become a member of the Union'. Nowhere in the Treaties, however, is a precise definition of 'Europe' proposed. Different delimitations of 'Europe' have been proposed according to geography, history, culture, religion... but they rely on ideological perceptions without any scientific or juridical basis. The analysis of mental perceptions of borders of Europe by foreign students and migrants can help to clarify this internal debate through an external view.

EuroBroadMap confirms that Europe is internally and externally perceived as a 'geographical' continent with relatively clear borders toward the South and Africa, but more unclear toward the East with the problematic inclusion of Russia and Turkey. Yet the fuzziness of 'European borders' is not an exception and the same uncertainty regarding mental borders can be observed between North and South America and between Asia and Oceania. In both cases, the fuzziness of mental borders has not been an obstacle to the creation of international organizations (NAFTA, ASEAN), which have no particular requirement to fit mental limits exactly. Therefore, we should ask why the European Union has introduced the fuzzy notion of 'Europe' in its treaties. A political union based on the respect of values has no reason to exclude or include countries on the basis of an ideological concept like continents, especially when this concept is subject to a variety of definitions.

Blum le Coat J.-Y., 2011, *Cross-results on students and migrants surveys*, EBM, WP6 Synthesis, 13 p.
Brennetot & al., 2011, *Textbook analysis*, EBM, WP4 Politics and ideology, Vol. 4, 60 p.
Didelon C., 2011., *Socio-spatial frameworks of spatial representations*, EBM, WP6 Synthesis, 30 p.
Quiminal C. & al., 2011, *Migrants and Borders - Synthesis*, EBM, WP3, 29 p.

Vision 3: Europe as a normative soft power

Initial vision	EuroBroadMap contribution
<p>Despite or because of its military weakness, the European Union generally considers itself as a normative power supporting democracy and human rights on a world scale. This vision of Europe as a 'soft power' has been extensively studied by scholars, especially regarding diplomatic relations (network of embassies) and common attitude of vote at United Nations General Assembly (UNGA). Yet the vision of Europe as a 'normative' or 'soft' power is more general than pure international relations and is also related to a more general feeling of moral superiority inherited from Antiquity and the Enlightenment. Many terms and expressions have been proposed to qualify the so-called normative influence of the European Union. Orbie cites, and his list is far from exhaustive, magnetic power, gentle power, normative power, quiet superpower, Kantian paradise, post-modern state, middle power, responsible power... The contribution of the EuroBroadMap project is to examine whether these discourses are mainly for internal use inside the EU or if they are also shared and admitted by external actors.</p>	<p>If the EU is recognized as an influential economic power at world scale, it cannot also be considered as a normative soft power in the international arena. Despite the complacency of some scholars, the EU enjoys little 'normative' influence outside its boundaries. The discourse produced regarding its role as a leader on global warming issues, for example, is far from the reality. In international fora, the EU is one actor among others, spending more time on internal cohesiveness than on discussion with other actors. The 'normative' vision must be considered as a discourse targeting European public opinion. The major aim of such discourses is to present a nice, comfortable, image of the EU. Yet it should be recalled that this image is not taken seriously outside the EU, whatever the place or the audience (students, migrants, non-EU delegations on international institutions) considered.</p>

Beauguitte L., 2011, *L'Assemblée générale de l'ONU de 1985 à nos jours: acteur et reflet du Système-Monde*, PhD, Université Paris Diderot, (PhD supported by EuroBroadMap project), 313 p.

Smith C., 2011, *EU-NATO relations*, FP7- EBM , WP4: Politics and Ideology, 30 p.
Delcourt B., 2011, *The European Union at the UNGA*, FP7- EBM , WP4: Politics and Ideology, 42p.
Guérin-Pace F., Garnier B., Emsellem K. and Brennetot A., 2011., *Textual analysis of representations of Europe in the World* , EBM, WP2: Mental Maps, Vol 5.2, pp. 28-73.

Vision 4: Europe as an attractive cluster of places in the global network

Initial vision	EuroBroadMap contribution
<p>This vision is based on the assumption that territorial divisions (borders between states belonging to the EU) as well as geographical distance between places or inherited colonial relations are less and less important in the flat world thanks to globalization. According to the concept of 'space of flows' proposed by Castells, 'the global economy is organized around command and control centers able to coordinate, innovate, and manage intertwined activities of networks of firms. Advanced telecommunications systems could make possible their scattered locations around the globe'. This vision, which was launched with the Lisbon Strategy in 2000, considers that Europe could become a cluster of advanced global cities, firms and universities that would insure a flow of innovations in knowledge economy, able to balance the decline of traditional activities. This cluster strategy supposes that each actor develops its own comparative advantage. It appears to be in line with the assumption of a 'minimal political coordination' at EU level and recognizes the freedom of states, cities, firms and universities to develop autonomous strategies as long as they support the global EU 2020 objective of 'smart, sustainable and inclusive growth'. The contribution of EuroBroadMap to this vision is to examine which places or actors are the most likely to participate successfully in a global network strategy and how it is perceived from abroad.</p>	<p>As regards the strategy of many EU countries and cities to attract the so-called 'creative class', the results of EuroBroadMap suggest two important difficulties. First , we can see that the north-western part of the EU is most likely to attract highly qualified migrants and this strategy would probably increase internal disparities. Second, it appears that geographical, sociological, historical and linguistic proximities are always crucial factors in migrants' choice of destination, which means that the EU should probably consider developing partnerships in higher education with neighbouring countries rather than trying to attract people at a distance. Looking more generally at the external global networks, we can say that the most powerful countries and cities of the EU could certainly obtain short-term comparative advantages from autonomous and selfish strategies, but it is not clear how far such strategies are sustainable in the long term because they display a negative external image of the EU which is, in the long run, a handicap for all member states.</p>
<p>Grasland C., Saint-Julien T. & al. 2011, <i>Knowledge and attractiveness of cities and countries</i>, EBM, WP2, 45 p. Van Hamme G. & al., 2011, <i>Flows and network – Synthesis</i>, EBM, WP5, 67 p. Schmoll C., Spiteri A., Said M., 2011, <i>Visions of Europe among Somali Women in Malta</i>, EBM, WP4, 27 p. Thapan M. & Deka M., 2011, <i>A View of Europe: Perspectives from Indian Immigrants</i>, EBM, WP4, 21 p.</p>	

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Address of the project public website & contacts

- The general website of the project can be found at the following address:
www.eurobroadmap.eu
- The main reports and internal working paper have been edited and are available on the following website:
http://halshs.archivesouvertes.fr/view_by_stamp.php?&halsid=ghrg70pppeuascvcdpg49ljm13&label=EUROBROADMAP&langue=en&action_todo=home
- A synthetic presentation of the project results, including maps and text is presented on the Subjective mapper: <http://www.ums-riate.fr/mapper/>
- The internet pedagogical tool implemented in the project, Terra (In)-cognita is available at the following address: <http://www.terra-cognita.fr/>

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