

# ATLANTIC SPATIAL DEVELOPMENT PERSPECTIVE



CONFERENCE OF PERIPHERAL MARITIME REGIONS OF EUROPE  
Forward Studies Unit for the Maritime Peripheries



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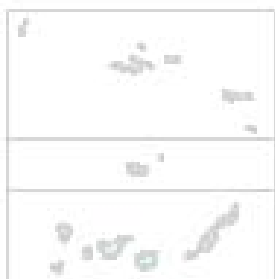


ESPAÑA ESPACIO ATLÁNTICO  
FRANCE ESPACE ATLANTIQUE  
IRELAND ATLANTIC AREA  
PORTUGAL ESPACIO ATLÁNTICO  
U.K. ATLANTIC AREA

## PARTICIPATING REGIONS

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ALENTEJO  
ANDALUCÍA  
AQUITAINE  
ARGYLL AND BUTE  
ASTURIAS  
BASSE-NORMANDIE  
BRETAGNE  
CASTILLA Y LEÓN  
CENTRE  
CENTRO  
CORNWALL  
GALICIA  
GOBIERNO DE NAVARRA  
LIMOUSIN  
LISBOA E VALE DO TEJO  
MID-WEST  
NORTE  
PAYS DE LA LOIRE  
POITOU-CHARENTES  
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## **FOREWORD**

In the light of cooperation experiences under the Interreg II C programme and in the run-up to the Interreg III B “Atlantic Area” programme, the Atlantic Arc Commission decided to take a closer look at the Atlantic Area’s place and role in the way the European territory is organised. With the firm belief that that the development of the Atlantic regions needs to be considered within a European perspective, the Atlantic Arc Commission decided to put spatial planning in the Atlantic Area at the top of its agenda.

This gave rise to the idea to develop an Atlantic Spatial Development Perspective (ASDP) with the participation of three quarters of the Atlantic Arc Commission’s members, under the coordination of the CPMR as project leader. Eighteen months on, we are pleased to present the findings of the work led by the 20 partner regions in the project.

The study was written by a team of experts from the UK, France, Spain and Portugal, who regularly discussed their findings and recommendations with the regions. The work that is presented here is quite remarkable in that it presents a highly detailed diagnosis of the relative strengths and weaknesses among our Atlantic regions and with regard to the rest of Europe. This makes it a rather unique work providing a valuable aid for our regions in their territorial development strategies.

Drawing on the guidelines identified by the experts and described in the second volume of the report, the regions now need to adopt these proposals as their own as part of their spatial planning policies, since the actual implementation of these guidelines depends on political will and decision-making capabilities. It is important to step up or indeed develop certain partnerships between local authorities (regions, counties, cities) as part of an integration process extending in some cases beyond national borders. This gives the regions a reference that allows them to look at and consider their social, economic, cultural and territorial development in the most relevant way, over and above a purely national outlook.

Moreover, this study confirms the need to concentrate future Atlantic-based cooperation actions on the maritime dimension in its broadest sense, and to think in terms of more operational projects. Safety and transport and coastal management are indeed issues that can only be addressed at transnational level. The Atlantic Arc Commission therefore intends to further develop these aspects with a view to preparing operational cooperation projects for the 2007-2013 period.

**President of the Atlantic Arc Commission**



Alain ROUSSET

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## **SYNTHESIS**

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### **Introduction**

The Atlantic Area is defined by the very thing that gives it its obvious unity, the presence of the ocean. However, even a cursory examination of the contours of this area raises the question of its heterogeneity. For centuries, the “Atlantic-ness” of these regions has kept them together despite their fundamental differences. Today the Atlantic regions are united by their marginalisation from the most dynamic areas of the continent and they are very aware of this peripherality in relation to the “heart” of Europe.

For centuries, its maritime-related prosperity was a prime common denominator for all Atlantic regions. Many large towns and cities are situated along the Atlantic seaboard including Bristol, Bordeaux, Nantes, Brest, Bilbao, Glasgow, Liverpool, Lisboa and Dublin. Furthermore in the realm of economic activity North/South short sea shipping partly originated in the transport of salt from the Atlantic towards the North Sea and Baltic Sea. At a cultural level the Celtic legacy of the 6th century has left an indelible mark in the shape of an architectural heritage and inherent identity now exploited by the tourist industry.

The first objective of the ASDP report is to offer a summary of the conclusions emerging from the analysis of the current territorial set-up of the Atlantic Area. The second objective is to present a vision for the development of this area, which will help to define a possible and desirable framework for the future.

### **Summary of the results of the strategic evaluation of the Atlantic Area**

The Atlantic Area, is made up of variations in development levels, wide differences in competitive advantage, fragmentation and the absence of links. The question is, which scale should take priority in the development of polycentrism within the Atlantic Area? Should priority be given to the macro scale (the European continent), the meso scale (groups of Regions) or the micro scale (towns and Regions)? Results lead us to believe that priority should be given to developing polycentrism at the meso (groups of Regions) and the micro (towns and Regions) levels.

It must be clear that this is not contradictory to the idea that the Atlantic Area as a whole can also be considered as an area within Europe whose regions share a certain number of interests and common problems calling for a set of common responses to be jointly implemented. In order to better explain the complexity of the territorial organisation along the Atlantic seaboard two types of characteristic sub-areas have been identified “Motor” sub-areas and “Integration” sub-areas.

#### *“Motor” sub-areas*

Have specific resources, notably linked to the proximity of the sea, whose exploitability has already been proven. Five “Motor sub-areas” have been identified as follows:



- Greater Dublin and the South east of the Republic of Ireland
- The Cardiff-Bristol-West Midlands-Liverpool-Manchester axis
- The North-western part of the French Atlantic Area
- The cross-border area between the North-East of Spain and the South-West of France
- The West Iberian Atlantic Area

*“Integration” sub-areas (both high potential and weak)*

In-between these five areas there are large intervening spaces where the population density and relative level of development are lower, the distance-time relationship between cities is much greater, there are fewer international connections, cities have less influence and the economy is much less diversified. These are regions that need to be included in a more balanced development of the Atlantic Area because they lag very far behind other areas and suffer from an accumulation of handicaps. Within this category some have greater inherent weaknesses than others, particularly caused by the more serious phenomenon of depopulation and geographical isolation. It is therefore vital to differentiate between “high-potential integration sub-areas” and “weak integration sub-areas”.

It is not necessary, to trace the precise outline of the sub-areas belonging to each of the three types of sub-areas due to the fact that the boundaries separating them are blurred, they remain highly interwoven and overlap.

*Atlantic inter-regional co-operation*

The Atlantic regions adhere firmly to inter-regional cooperation. Qualitative analysis, undertaken via a set of case studies has allowed the identification of the impact of inter-regional cooperation, within the INTERREG III B programme. This has also confirmed the added value of inter-regional cooperation for the development of the Atlantic regions and the structuring of the Atlantic seaboard.

- Many of the projects deal with maritime issues. These projects prove that as an area of co-operation, the Atlantic Ocean is a special case.
- Certain themes for co-operation projects and relative networks need to be developed with a long-term view, and even for permanent co-operation structures to be created.
- The partners of the INTERREG programme have gained the opportunity to develop new networks and new development possibilities.
- Inter-regional cooperation projects give “European ambitions” to players in the territories involved.
- Cross-fertilisation between the networks might be particularly propitious in the future.

- However some projects lack critical mass and should be developed. Some networks are incomplete, particularly on such important topics as integrated coastal zone management.

#### *Conclusions:*

- The Atlantic Area does not in itself represent an “integrated development zone” in the European Spatial Development Perspective (ESDP) sense of the term.
- The structuring of the motor sub-areas and their links with integration sub-areas is a vital objective that has to be achieved if their operational independence from the national capitals is to be strengthened.
- The priority level for developing polycentrism in the Atlantic Area is the *meso* (national) level.
- Development areas inside the Atlantic Area should be defined on the basis of motor sub-areas with an examination of how high potential integration regions or weak integration regions can be integrated into them.
- Inter-regional, cross-border and transnational co-operation plays an important role in the structuring of polycentric sub-areas and the seaboard as a whole.

#### **Strategic guidelines for the development of the Atlantic Area**

Bearing in mind the results of the the ASDP’s proposals analysis, the development strategy pursues two main objectives, at two levels:

- The strengthening of projects and development areas to be set up on the basis of gradual linkage between motor sub-areas and integration sub-areas, particularly via territorial and sectoral policies aimed at: improving their competitiveness (overcoming their main identified weaknesses and/or exploiting their comparative advantages with regard to other areas); internal territorial structuring (strengthening networks in such fields as transport and collective infrastructures, which demands new pro-active territorial co-operation); improving accessibility and connectivity with regard to other outside areas, both nationally and internationally. In this respect, the links between motor sub-areas and integration sub-areas (mainly those that are weakest according to the strategic evaluation) become a very important objective.
- The promotion of inter-regional co-operation at the Atlantic level, to be constructed around stronger pro-active inter-regional co-operation based on a set of themes and structuring projects that bring together the common interests of the Atlantic regions and incorporate the specific features that define and assert the identity of the Atlantic Area inside Europe as a whole. The cities must also necessarily be involved in this initiative, through a partnership with the Regions.

Both of the above guidelines refer to the introduction of policies at two different levels: at the level of Atlantic sub-areas, targeting regional, cross-border and national policies in particular, and at the level of the Atlantic Area as a whole, essentially relating to policies of inter-regional co-operation and to some national sectoral policies.

### *Future projects and development areas inside the Atlantic Area*

The objective is not to replace one scale (sub-areas) with another (Atlantic Area), but rather to reflect in concrete terms the need to consider action (and cooperation) on two distinct, complementary levels.

The chosen breakdown is the result of a double requirement: to ensure greater solidarity between coastal areas and the hinterland, and to help improve the integration of fragile areas and to respond to the need to structure development areas which are less dependant on the capital cities.

The strategic vision clearly identifies five major projects and development areas:

- The British Atlantic Area: The main issue here is the need for the Irish Sea and its coasts to be jointly managed.
- The French North-West Area: This area is strongly connected to Paris and also includes the adjacent high potential integration sub-areas.
- The French-Spanish Area: The major challenge is to create proper links between the two national components by strengthening cross-border co-operation. For adapted solutions, which take into account the environmental constraints specific to the mountain environment.
- The Western Iberian Area: This zone is characterized by its role as a “transition point” between three worlds – Latin-America, Africa and Europe. In fact, all the Atlantic regions are destined to play an increased role as an interface between Europe and the overseas continents of America or Africa in the context of ever-deepening globalisation.
- The Southern Iberian Area: This area is a particular case because it has a dual Atlantic and Mediterranean identity.

These areas must be considered as components in their own right of the total unit formed by the Atlantic Area and must under no circumstances be regarded as suggested boundaries defining new areas for implementing structural funds. Three main categories of policy recommendations\* have been put forward for each of these projects and development areas:

Territorial ones; envisaging new polycentric urban territorialities inside the regions. On the one hand, these involve advising the mesh of relatively average-sized towns in each of these sub-areas to cooperate and create ties with one another, with a view to developing the synergies to help them improve their international exposure. It is also the role of the EU, the States and the Regions to help the cities to carry out the actions that are necessary to improve the networking of the Atlantic Area in general, as well as within the sub-areas. On the other hand, the need to fight against the depopulation of rural areas and its effects calls for proposals adapted and specific to each individual context.

Sectoral ones, particularly on accessibility and transport, research-development-innovation, the environment and risk protection.

Recommendations concerning linkage with other sub-areas. Here again, the five main zones are not to be considered as separate closed-off areas. Rather, the idea is to specify recommendations on wider co-operation and particularly on transport (for example, cross-channel links), that will

lead to the greater integration of the Atlantic Area overall. Furthermore, measures concerning the development of relations with other large European or global geo-economic entities must also be considered.

### *Reinforcing Atlantic inter-regional co-operation*

The ASDP's proposals come in complementary forms at two territorial levels, one at the level of the Atlantic Area in its overall context, and the second at the level of the development sub-areas. The proposals hereafter refer to the Atlantic Area in its entirety. However, there is no conflict whatsoever between these two levels and certain of these proposals can be taken up more locally ...

These proposals revolve around three main themes: the maritime dimension, a fundamental theme of identity for the Atlantic Area; the promotion of sustainable development for Atlantic rural areas and the strengthening of networks through the increased exchange of experience.

Maritime dimension where four main issues have been identified as follows: maritime transport and safety; sustainable management of the Atlantic coast and marine environment; research-development-innovation in the field of marine resources; and promotion of the Atlantic culture and identity.

Promote the sustainable development of rural Atlantic Areas where five main issues have been identified as follows: many fragile rural areas are exposed to the risk of depopulation, association between the hinterland and the coastal seaboard is necessary, inspiration must be drawn from new common agricultural policy, research should be based on the Atlantic Area's natural resources and links between public services and the needs of the population should be examined

Strengthen the exchange of experience and co-operation networks where three main issues have been identified as follows: environmental management, development of research, innovation and centres of competitiveness and strengthening of towns that are transport nodes

## Introduction

L'Espace Atlantique se définit par l'élément même qui lui donne son unité évidente : la présence de l'océan. Toutefois, même un examen superficiel des contours de cet espace soulève la question de son hétérogénéité. Pendant des siècles, « l'Atlantité » de ces régions a entretenu leur unité en dépit de leurs différences fondamentales. Aujourd'hui, les régions Atlantiques sont unies par leur marginalisation des régions les plus dynamiques du continent et elles sont très conscientes de leur caractère périphérique par rapport au « cœur » de l'Europe.

Pendant des siècles, la prospérité liée aux activités maritimes a été le principal dénominateur commun de toutes les régions Atlantiques. Beaucoup de grandes villes et de métropoles se situent le long de la façade maritime atlantique, telles que Bristol, Bordeaux, Nantes, Brest, Bilbao, Glasgow, Liverpool, Lisboane et Dublin. De plus, en matière d'activité économique nord/sud, le cabotage est en partie né du transport du sel de l'Atlantique vers la Mer du Nord et la Mer Baltique. Au niveau culturel, l'héritage celtique du 6<sup>ème</sup> siècle a laissé une marque indélébile sous la forme d'un patrimoine architectural et d'une identité propre désormais exploités par l'industrie touristique.

Le premier objectif du rapport du SDEA est de proposer un résumé des conclusions issues de l'analyse de la situation territoriale actuelle de l'Espace Atlantique. Le second objectif est de présenter une perspective pour le développement de cet espace, qui aidera à définir un cadre possible et souhaitable pour l'avenir.

## Résumé des résultats de l'évaluation stratégique de l'espace atlantique

L'Espace Atlantique présente des variantes en termes de niveaux de développement, de grandes différences d'avantages concurrentiels, une fragmentation et l'absence de liaisons. La question est : quelle échelle est prioritaire dans le développement du polycentrisme au sein de l'Espace Atlantique ? Doit-on donner la priorité à l'échelle macro (le continent européen), l'échelle méso (les nations) ou l'échelle micro (les villes et la nation) ? Les résultats portent à croire que la priorité doit être donnée au développement d'un polycentrisme aux niveaux méso (national) et micro (villes et nation).

Il faut entendre que ceci n'est pas contradictoire avec l'idée que l'Espace Atlantique dans son ensemble peut aussi être considéré comme une zone au sein de l'Europe dont les régions partagent un certain nombre de centres d'intérêts et de problèmes communs qui appellent une série de réponses communes devant être mises en œuvre conjointement. Afin de mieux expliquer la complexité de l'organisation territoriale le long de la façade atlantique, on a identifié deux types de sous-espaces géographiques : les sous-espaces « moteurs » et les sous-espaces « d'intégration ».

### *Les sous-espaces "moteurs" :*

Ils possèdent des ressources spécifiques, notamment liées à la proximité de la mer, et dont le caractère exploitable est avéré. Cinq « sous-espaces moteurs » ont été identifiés comme suit :

- L'agglomération de Dublin et le sud est de la République d'Irlande
- L'axe Cardiff-Bristol-West Midlands-Liverpool-Manchester
- Le quart nord-ouest de l'espace atlantique français
- La zone transfrontalière entre le nord-est de l'Espagne et le sud-ouest de la France
- L'espace atlantique de l'ouest de la Péninsule Ibérique

### *Les sous-espaces “d’intégration” (à fort et à faible potentiel) :*

Entre ces cinq espaces, se trouvent de larges espaces d’intervention où la densité de population et le niveau de développement relatif sont plus faibles, le rapport distance-temps entre les grandes villes plus important, il y a moins de connexions internationales, les villes ont une moindre influence et l’économie est bien moins diversifiée. Ce sont des régions qui doivent être incluses dans un plan de développement équilibré de l’Espace Atlantique car elles se trouvent loin à la traîne d’autres régions et souffrent d’une accumulation de handicaps. Au sein de cette catégorie, certaines possèdent de plus grandes faiblesses inhérentes que d’autres, en particulier dues à un phénomène accentué de dépeuplement et d’isolement géographique. Il est par conséquent vital d’établir une différence entre les « sous-espaces d’intégration à fort potentiel » et les « sous-ensembles d’intégration à faible potentiel ».

Il n’est pas nécessaire de tracer le contour précis des sous-espaces appartenant à chacun des trois types de sous-espaces car les frontières qui les séparent étant floues, ils demeurent fortement entremêlés et se chevauchent.

### *La coopération interrégionale atlantique :*

Les régions atlantiques adhèrent fortement à la coopération interrégionale. Une analyse qualitative, entreprise via une série d’études de cas a permis d’identifier l’impact de la coopération interrégionale dans le cadre du programme INTERREG IIIB. Elle a aussi confirmé la valeur ajoutée de la coopération interrégionale pour le développement des régions atlantiques et la structuration de la façade atlantique.

- Beaucoup de projets traitent de questions maritimes. Ces projets prouvent qu’en tant qu’espace de coopération, l’Océan Atlantique est un cas particulier.
- Certains thèmes pour des projets de coopération et des réseaux s’y rapportant doivent être développés avec une vision à long terme. Il en est de même des structures de coopération permanentes à créer.
- Les partenaires du programme INTERREG ont eu l’opportunité de développer de nouveaux réseaux et de nouvelles possibilités de développement.
- Les projets de coopération interrégionale donnent des « ambitions européennes » aux acteurs des territoires concernés.
- Les apports croisés entre les réseaux pourraient s’avérer particulièrement propices à l’avenir.
- Toutefois, certains projets manquent de masse critique et devraient être développés. Certains réseaux sont incomplets, en particulier sur des thèmes importants tels que la gestion intégrée des zones côtières.

### *Conclusions :*

- L’Espace Atlantique ne représente pas en soi une “zone de développement intégrée” au sens du Schéma de Développement de l’Espace Communautaire (SDEC).
- La structuration des sous-espaces moteurs et de leurs liaisons avec les sous-espaces d’intégration est un objectif crucial à atteindre si l’on souhaite renforcer leur indépendance opérationnelle vis à vis des capitales nationales.

- Le niveau prioritaire pour le développement du polycentrisme dans l'Espace Atlantique se situe au niveau *meso* (national).
- Les zones de développement au sein de l'Espace Atlantique doivent aussi être définies sur la base de sous-espaces moteurs en étudiant comment y intégrer les régions à fort potentiel et les régions à faible potentiel d'intégration.
- La coopération interrégionale, transfrontalière et transnationale joue un rôle important dans la structuration des sous-espaces polycentriques et des zones côtières dans leur ensemble.

### **Recommandations stratégiques pour le développement de l'espace atlantique**

Sur la base des résultats de l'analyse des propositions du SDEA, la stratégie de développement poursuit deux objectifs principaux, à deux niveaux :

- Le renforcement des projets et des zones de développement à établir sur la base de la mise en liaison progressive entre sous-espaces moteurs et sous-espaces d'intégration, en particulier au moyen des politiques territoriales et sectorielles ayant pour but : l'amélioration de la compétitivité (en éradiquant les principaux points faibles identifiés et/ou en exploitant leurs avantages comparatifs au regard d'autres espaces) ; la structuration interne des territoires (par le renforcement des réseaux dans des domaines tels que le transport et les infrastructures collectives, qui exigent une nouvelle coopération territoriale concertée) ; l'amélioration de l'accessibilité et des connexions au regard des autres espaces extérieurs, qu'ils soient nationaux ou internationaux. A cet égard, les liaisons entre sous-espaces moteurs et sous-espaces d'intégration (principalement ceux qui sont considérés comme les plus faibles du point de vue l'évaluation stratégique) devient un objectif primordial.
- La promotion de la coopération interrégionale au niveau de l'Espace Atlantique, à construire autour d'une coopération interrégionale renforcée et concertée et d'une série de thématiques et de projets structurants de nature à rassembler les intérêts communs des régions atlantiques en prenant en compte les spécificités qui définissent et affirment l'identité de l'Espace Atlantique au sein de l'Europe dans son ensemble. Les villes doivent aussi être nécessairement associées à cette initiative, par le biais d'un partenariat avec les Régions.

Les deux recommandations ci-dessus ont trait à l'introduction des politiques à deux niveaux différents: au niveau des sous-espaces atlantiques, en ciblant tout particulièrement les politiques régionales, transfrontalières et nationales, et au niveau de l'Espace Atlantique dans son ensemble, essentiellement en lien avec les politiques de coopération interrégionales et certaines politiques sectorielles nationales.

#### *Futurs projets et zones de développement au sein de l'Espace Atlantique :*

L'objectif n'est pas de remplacer une échelle (les sous-espaces) par un autre (l'Espace Atlantique), mais plutôt de réfléchir en termes concrets au besoin de considérer une action (et une coopération) sur deux niveaux distincts, mais complémentaires.

Le plan choisi est le résultat d'une double nécessité : assurer une plus grande solidarité entre les zones côtières et l'intérieur des terres, et contribuer à améliorer l'intégration des zones fragiles ; et répondre à la nécessité de structurer des zones de développement qui soient moins dépendantes des capitales.

La vision stratégique identifie clairement cinq projets et espaces de développement majeurs :

- L'espace atlantique britannique: La principale question est la nécessité d'une gestion conjointe de la Mer d'Irlande et de ses côtes.
- L'espace français nord-ouest : Cet espace est fortement relié à Paris et inclut également des sous-espaces d'intégration à fort potentiel.
- L'espace franco-espagnol : Le principal défi est de créer des liens propres entre les deux composantes nationales par le renforcement de la coopération transfrontalière. Il faudra en outre des solutions adaptées qui prennent en compte les contraintes environnementales spécifiques des zones de montagne.
- L'espace occidental de la Péninsule Ibérique : Cette zone se caractérise par son rôle de « point de transition » entre deux mondes : L'Amérique Latine, l'Afrique et l'Europe. En fait, toutes les régions atlantiques sont vouées à jouer un rôle croissant d'interface entre l'Europe et les continents que sont l'Amérique et l'Afrique dans le contexte d'une mondialisation accrue.
- Le sud de la Péninsule Ibérique : Cette zone est un cas particulier du fait de sa double identité : atlantique et méditerranéenne.

Ces zones doivent être considérées comme des composantes de plein droit de l'unité totale formée par l'Espace Atlantique et ne doivent en aucun cas être envisagées comme des frontières suggérées définissant de nouvelles zones pour l'instauration de fonds structurels. Trois principales catégories de recommandations politiques ont été formulées pour chacun de ces projets et espaces de développement :

Recommandations territoriales : comment envisager de nouvelles territorialités urbaines polycentriques au sein des régions. D'un côté, il s'agit d'inciter le réseau des villes de taille moyenne de chacun de ces sous-espaces à coopérer et à établir des liens les unes avec les autres, afin de développer des synergies leur permettant d'améliorer leur ouverture à l'international. Il est également du ressort de l'Union Européenne, des Etats et des Régions d'aider les villes à mener les actions nécessaires à l'amélioration de la mise en réseau de l'Espace Atlantique en général, ainsi qu'à l'intérieur des sous-espaces. D'un autre côté, le besoin de lutter contre le dépeuplement des zones rurales et ses effets appelle des propositions adaptées et spécifiques à chaque contexte individuel.

Recommandations sectorielles : concernant en particulier l'accessibilité et le transport, la recherché-développement et l'innovation, l'environnement et la protection contre les risques.

Recommandations concernant le lien avec les autres sous-espaces : une fois encore, les cinq zones principales ne doivent pas être considérées comme des zones séparées ou fermées. L'idée est plutôt d'énoncer des recommandations sur une coopération élargie, en particulier en matière de transport (par exemple, les liaisons trans-Manche), de nature à conduire vers une intégration accrue de l'Espace Atlantique dans son ensemble. De plus, des mesures concernant le développement de relations avec d'autres grandes entités géo-économiques européennes ou mondiales doivent être envisagées.

#### *Renforcement de la coopération interrégionale atlantique :*

Les propositions du SDEA sont complémentaires à deux niveaux territoriaux, premièrement au niveau de l'Espace Atlantique dans son contexte d'ensemble, et deuxièmement au niveau du développement des sous-espaces. Les propositions suivantes font référence à l'Espace Atlantique dans son entier. Toutefois, il n'y a aucune contradiction entre ces deux niveaux et certaines de ces propositions peuvent être adoptées à un niveau plus local...



Ces propositions tournent autour de trois thèmes principaux : la dimension maritime, thème fondamental de l'identité de l'Espace Atlantique, la promotion d'un développement durable pour les zones rurales atlantiques et le renforcement des réseaux, par le biais de l'augmentation de l'échange d'expérience.

Dans la dimension maritime, quatre principaux thèmes ont été identifiés, comme suit : le transport et la sécurité maritimes ; la gestion durable de la côte atlantique et de l'environnement marin ; la recherche-développement-innovation en matières de ressources marines ; et la promotion de la culture et de l'identité atlantiques.

La promotion du développement durable des zones rurales atlantiques avec cinq thèmes principaux identifiés comme suit : beaucoup de zones rurales fragiles sont exposées au risque de dépeuplement ; l'association entre l'intérieur des terres et la façade côtière est nécessaire ; l'inspiration doit venir de la nouvelle politique agricole commune ; la recherche doit être basée sur les ressources naturelles de l'Espace Atlantique ; et les liens entre services publics et besoins de la population doivent être examinés.

Renforcement de l'échange d'expérience et des réseaux de coopération avec trois principaux thèmes identifiés comme suit : la gestion environnementale ; le développement de la recherche, de l'innovation et des pôles de compétitivité ; et le renforcement des villes nœuds des réseaux de transport.

## **Introdução**

O Espaço atlântico define-se pelo que lhe confere a sua unidade óbvia: a presença do oceano. No entanto, mesmo um exame superficial dos contornos desta área levanta a questão da sua heterogeneidade. Durante séculos a “atlanticidade” destas regiões manteve-as em conjunto apesar das suas diferenças fundamentais. Hoje as regiões Atlânticas, pela sua marginalização quanto às áreas mais dinâmicas do continente, estão unidas e estão muito conscientes deste carácter periférico em relação ao “coração” da Europa.

Durante séculos, a sua prosperidade ligada ao mar foi um denominador comum principal para todas as regiões Atlânticas. Muitas vilas grandes e cidades estão situadas ao longo do litoral Atlântico incluindo Bristol, Bordéus, Nantes, Brest, Bilbao, Glasgow, Liverpool, Lisboa e Dublin. Além disso no campo da actividade económica Norte/Sul o transporte marítimo de curta distância provém parcialmente do transporte do sal indo do Atlântico para o Mar do Norte e o Mar Báltico. Num plano cultural o legado celta do século VI deixou uma marca indelével sob a forma de uma herança arquitectural e de uma identidade inerente presentemente exploradas pela industria turística.

O primeiro objectivo do relatório EDEA é o de oferecer um resumo das conclusões emergentes da análise da organização territorial actual do Espaço atlântico. O segundo objectivo consiste em apresentar uma visão para o desenvolvimento deste espaço, o que ajudará a definir um quadro possível e desejável para o futuro.

## **Resumo dos resultados da avaliação estratégica do espaço atlântico**

O Espaço Atlântico, é formado por variantes nos níveis de desenvolvimento, por grandes diferenças de vantagem concorrencial, pela fragmentação e pela ausência de ligações. A questão é de saber que escala

deveria ter a prioridade no desenvolvimento do policentrismo dentro do Espaço atlântico? Deveria dar-se a prioridade à macro-escala (o continente Europeu), à meso-escala (nações) ou à micro-escala (cidades e nação). Os resultados levam-nos a crer que a prioridade deveria ser dada ao desenvolvimento do policentrismo aos níveis meso (nacional) e micro (cidades e nação).

Deve ser claro que isto não contradiz a ideia que o Espaço atlântico no seu conjunto pode também ser considerado como um espaço no seio da Europa cujas regiões partilham um certo numero de interesses e de problemas comuns que requerem uma série de respostas comuns a implementar conjuntamente. A fim de melhor explicar a complexidade da organização territorial ao longo do litoral Atlântico foram identificados dois tipos de sub-espacos característicos, os sub-espacos “Motor” e os sub-espacos de “Integração”.

### *Os sub-espacos “Motor”*

Têm recursos específicos, especialmente ligados à proximidade do mar, cuja explorabilidade ficou já provada. Cinco “sub-espacos Motor” foram identificados da maneira seguinte:

- Grande Dublin e Sudeste da República da Irlanda
- O eixo Cardiff-Bristol-West Midlands-Liverpool-Manchester
- A zona Noroeste do Espaço atlântico Francês

- A zona transfronteiriça entre o Nordeste da Espanha e o Sudoeste da França
- O Espaço atlântico do Ocidente Ibérico

#### *Os sub-espços de “Integração” (tanto de elevado como fraco potencial)*

Entre estes cinco espaços há grandes espaços de interposição onde a densidade da população e o nível relativo de desenvolvimento são inferiores, a relação distância-tempo entre as cidades é muito maior, há menos conexões internacionais, as cidades têm menos influência e a economia é muito menos diversificada. São regiões que precisam de ser incluídas num desenvolvimento mais equilibrado do Espaço atlântico porque elas arrastam-se muito longe atrás doutras regiões e sofrem duma acumulação de desvantagens. Dentro desta categoria algumas têm maiores fraquezas inerentes do que outras, particularmente causadas pelo fenómeno mais sério do despovoamento e do isolamento geográfico. É vital, por conseguinte, distinguir entre “sub-espços de integração com potencial elevado” e “sub-espços de fraca integração”.

Não é necessário traçar o contorno preciso dos sub-espços pertencente a cada um dos três tipos de sub-espços devido ao facto que os limites que os separam são mal delineados, permanecem altamente entrançados e sobrepõem-se.

#### *A cooperação inter-regional atlântica*

As regiões atlânticas aderem firmemente à cooperação inter-regional. Uma análise qualitativa, efectuada por intermédio de uma série de casos permitiu a identificação do impacto da cooperação inter-regional, dentro do programa INTERREG III B. Isto confirmou também o valor acrescentado da cooperação inter-regional para o desenvolvimento das regiões Atlânticas e a estruturação do litoral Atlântico.

- Numerosos projectos tratam de questões marítimas. Estes projectos provam que enquanto espaço de cooperação, o Oceano Atlântico é um caso especial.
- Certos temas para projectos de cooperação e redes correspondentes necessitam ser desenvolvidos com uma visão a longo prazo, e até para estruturas de cooperação a serem criadas.
- Os parceiros do programa INTERREG obtiveram a oportunidade de desenvolver novas redes e novas possibilidades de desenvolvimento.
- Os projectos de cooperação inter-regional dão “ambições europeias” aos actores dos territórios envolvidos.
- A trans-fertilização entre as redes poderia ser particularmente propícia no futuro.
- No entanto alguns projectos carecem de massa critica e deveriam ser desenvolvidos. Algumas redes estão incompletas, particularmente em tópicos tão importantes como a gestão integrada da zona costeira.

#### *Conclusões*

- O Espaço atlântico por ele mesmo não representa uma “zona de desenvolvimento integrado” no sentido do termo Esquema de Desenvolvimento do Espaço Comunitário (EDEC).

- A estruturação dos sub-espacos motor e das ligacoes com os sub-espacos de integracao e um objectivo vital que e preciso conseguir se tiver de ser reforçada a sua independencia operacional quanto às capitais nacionais.
- O nível de prioridade para desenvolver o policentrismo no Espaco atlântico e o nível *meso* (nacional).
- Os espacos de desenvolvimento no interior do Espaco atlântico deveriam ser definidos na base de sub-espacos motor examinando como neles podem ser integradas regioes com potencial elevado de integracao ou regioes de fraca integracao.
- A cooperacao inter-regional, transfronteiriça e transnacional desempenha um papel importante na estruturação dos sub-espacos policentricos e do litoral no seu conjunto.

### **As linhas directrizes estratégicas para o desenvolvimento do Espaco atlântico**

Tendo em mente os resultados da análise das propostas do EDEA, a estratégia de desenvolvimento prossegue dois objectivos principais, em dois níveis:

- O reforço dos projectos e dos espacos de desenvolvimento a estabelecer baseado na instalacao de uma ligacao gradual entre os sub-espacos motor e os sub-espacos de integracao, particularmente por meio de politicas territoriais e sectoriais visando: o melhoramento da sua competitividade (superando as suas principais fraquezas identificadas e/ou explorando as suas vantagens comparativas em relacao a outros espacos); a estruturação territorial interna (reforçando as redes em dominios tais como os transportes e as infra-estruturas colectivas, o que exige uma nova cooperacao territorial pro-activa); o melhoramento da acessibilidade e da conectividade em relacao a outros espacos exteriores, tanto no plano nacional como internacional. A este respeito, as ligacoes entre os sub-espacos motor e os sub-espacos de integracao (principalmente os que são mais fracos segundo a avaliacao estratégica) tornam-se num objectivo muito importante.
- A promocao da cooperacao inter-regional ao nível atlântico, a construir à volta de uma cooperacao inter-regional pro-activa mais forte baseada numa série de temas e de projectos estruturantes que conjugam os interesses comuns das regioes Atlânticas e que incorporam as características específicas que definem e afirmam a identidade do Espaco atlântico no seio da Europa no seu conjunto. As cidades devem também ser necessariamente implicadas nesta iniciativa, através de uma parceria com as Regioes.

Ambas as linhas directrizes acima mencionadas se referem à introdução de politicas a dois níveis diferentes: ao nível dos sub-espacos atlânticos, visando politicas regionais, transfronteiriças e nacionais em particular, e ao nível do Espaco atlântico no seu conjunto, ligando-se essencialmente a politicas de cooperacao inter-regional e a algumas politicas sectoriais nacionais.

#### *Futuros projectos e espacos de desenvolvimento no seio do Espaco atlântico*

O objectivo não e de substituir uma escala (sub-espacos) por outra (Espaco atlântico), mas antes de reflectir na necessidade, em termos concretos, de considerar a acção (e a cooperacao) a dois níveis complementares e distintos.

A dissociação escolhida é o resultado de uma dupla exigência: assegurar uma maior solidariedade entre os espaços costeiros e o interior do país, e ajudar a melhorar a integração dos espaços frágeis e responder à necessidade de estruturar os espaços de desenvolvimento menos dependentes das capitais.

A visão estratégica identifica claramente cinco projectos importantes e espaços de desenvolvimento.

- O Espaço atlântico Britânico: A questão principal é a necessidade de gerir conjuntamente o Mar da Irlanda e as suas costas.

- O Espaço do Noroeste Francês: Este espaço está fortemente ligado a Paris e inclui também os sub-espaços adjacentes com elevado potencial de integração.

- O Espaço Franco-Espanhol: O desafio principal é de criar laços convenientes entre as duas componentes nacionais reforçando a cooperação transfronteiriça. Para soluções adaptadas que tomem em consideração as sujeições ambientais específicas do meio ambiental de montanha.

- O Espaço do Oeste Ibérico: Esta zona é caracterizada pelo seu papel como “ponto de transição” entre três mundos – América Latina, África e Europa. De facto, todas as regiões Atlânticas estão destinadas a desempenhar um papel acrescido enquanto interface entre a Europa e os continentes do ultramar da América ou da África no contexto da globalização crescente.

- O Espaço do Sul da Península Ibérica: Este espaço é um caso particular porque tem uma identidade dual: atlântica e mediterrânica.

Estes espaços devem ser considerados como componentes de pleno direito da unidade total formada pelo Espaço atlântico e não devem de modo algum ser considerados como fronteiras sugeridas definindo novos espaços para implementar fundos estruturais. Três categorias principais de recomendações de política foram avançadas para cada um destes projectos e espaços de desenvolvimento:

Recomendações territoriais: tendo em vista novas territorialidades urbanas policêntricas dentro das regiões. Por um lado, estas implicam aconselhar a rede das cidades relativamente médias de cada um destes sub-espaços a cooperar e a tecer laços entre elas, tendo em vista desenvolver as sinergias para as ajudar a melhorar a sua exposição internacional. É também o papel da UE, dos Estados e das Regiões, ajudar as cidades a executar as acções que são necessárias para melhorar a ligação em rede do Espaço atlântico em geral, assim como dentro dos sub-espaços. Por outro lado, a necessidade de lutar contra o despovoamento dos espaços rurais e dos seus efeitos requer propostas adaptadas e específicas para cada contexto individual.

Recomendações Sectoriais: particularmente sobre a acessibilidade e o transporte, investigação-desenvolvimento-inovação, o ambiente e a protecção contra os riscos.

Recomendações respeitantes à ligação com outros sub-espaços: de novo, as cinco principais zonas não são para considerar como espaços fechados separados. É, antes, a ideia de especificar recomendações de mais larga cooperação e particularmente em matéria de transporte (por exemplo, ligações Trans-Mancha), que conduzirão no total a uma maior integração do Espaço atlântico. Além disso, medidas respeitantes ao desenvolvimento de

relações entre outras grandes entidades europeias ou geo-económicas mundiais devem também ser consideradas.

### *Reforço da cooperação inter-regional atlântica*

As propostas do EDEA aparecem como formas complementares em dois níveis territoriais, uma ao nível do Espaço atlântico no seu contexto total, e a outra ao nível do desenvolvimento dos sub-espacos. As propostas seguintes referem-se ao Espaço atlântico na sua totalidade. No entanto, não há qualquer conflito entre estes dois níveis e algumas destas propostas podem ser adoptadas mais localmente...

Estas propostas andam à volta de três temas principais: a dimensão marítima, tema fundamental de identidade do Espaço atlântico; a promoção do desenvolvimento durável para os espacos rurais atlânticos e o reforço das redes através dum intercâmbio acrescido de experiência.

Na dimensão marítima, quatro questões principais foram identificadas da seguinte maneira: transporte e segurança marítimos; gestão durável da costa atlântica e do ambiente marinho; investigação-desenvolvimento-inovação no domínio dos recursos marinhos; e promoção da cultura e da identidade atlânticas.

Promoção do desenvolvimento durável dos Espacos atlânticos rurais onde cinco questões principais foram identificadas da maneira seguinte: numerosos espacos rurais frágeis estão expostos ao risco de despovoamento; a associação entre o interior do país e o litoral costeiro é necessária; a inspiração deve ser tomada na nova política agrícola comum; a investigação deveria ser baseada nos recursos naturais do Espaço atlântico; e as ligações entre os serviços públicos e as necessidades da população deveriam ser examinadas

Reforço do intercâmbio de experiência e de redes de cooperação onde três questões principais foram identificadas da maneira seguinte: gestão ambiental; desenvolvimento da investigação, inovação e centros de competitividade; e reforço de cidades que são nós de transporte.

## Introducción

El Área Atlántica se encuentra definida por lo que le concede su identidad obvia: la presencia del océano. Sin embargo, incluso si realizamos un examen superficial de los contornos de esta área nos plantearemos la cuestión de su heterogeneidad. Durante siglos, la “atlanticidad” de estas regiones las ha mantenido unidas a pesar de sus diferencias fundamentales. En la actualidad, las regiones atlánticas se encuentran unidas por su marginalidad con respecto a las zonas más dinámicas del continente, y son plenamente conscientes de su situación periférica con respecto al “corazón” de Europa.

Durante siglos, esta prosperidad ligada al mar fue el principal denominador común de todas las regiones atlánticas. Muchas grandes ciudades, entre las que citaremos Bristol, Burdeos, Nantes, Brest, Bilbao, Glasgow, Liverpool, Lisboa y Dublín, se encuentran situadas en torno a la costa atlántica. Además, en el terreno de la actividad económica, la navegación a distancias cortas norte / sur se originó parcialmente debido al transporte de sal desde el Atlántico hacia el Mar del Norte y el Mar Báltico. A nivel cultural, el legado celta del siglo VI ha dejado una marca indeleble en forma de herencia arquitectónica y una identidad inherente que ahora explota la industria del turismo.

El primer objetivo del informe ASDP es ofrecer un resumen de las conclusiones extraídas del análisis de la actual organización territorial del Área Atlántica. El segundo objetivo es presentar una panorámica sobre el desarrollo de esta área, lo que ayudará a definir un posible marco deseable para el futuro.

## Resumen de los resultados de la evaluación estratégica del área atlántica

El Área Atlántica se caracteriza por las diferencias en los niveles de desarrollo, grandes diferencias en las ventajas competitivas, fragmentación y carencia de conexiones. La cuestión es la siguiente: ¿en qué medida debería primarse el desarrollo del policentrismo en el Área Atlántica? ¿Debería primarse la macroescala (el continente europeo), la mesoescala (las naciones), o la microescala (ciudades y nación)? Los resultados nos llevan a pensar que deberíamos priorizar el desarrollo del policentrismo a mesoescala (naciones) y microescala (ciudades y nación).

Debemos aclarar que no es contradictorio con la idea de que el Área Atlántica en su totalidad también se puede considerar un área de Europa cuyas regiones comparten determinados intereses y problemas comunes con un grupo de respuestas comunes que se van a implantar de manera conjunta. Para explicar mejor la complejidad de la organización territorial a lo largo de la costa atlántica, se han identificado dos sub-áreas características: las sub-áreas “Motor” y las sub-áreas de “Integración”.

### *Sub-áreas “Motor”*

Disponen de recursos específicos, especialmente ligados a la proximidad del mar, cuyas posibilidades de explotación ya han sido demostradas. Se han identificado cinco sub-áreas “Motor”, que son las siguientes:

- *Gran Dublín y sureste de la República de Irlanda.*
- *El eje Cardiff-Bristol-West Midlands-Liverpool-Manchester*
- *La parte noroeste del Área Atlántica francesa*
- *El área interfronteriza entre el noreste de España y el suroeste de Francia*
- *El Área Atlántica del oeste de la Península Ibérica*

*Sub-áreas de “Integración” (tanto de gran como de escaso potencial):*

Entre estas cinco áreas existen grandes espacios de intervención cuya densidad de población y nivel relativo de desarrollo son menores, la relación tiempo-distancia entre ciudades es mucho mayor, existen menos conexiones internacionales, las ciudades tienen una menor influencia y la economía se encuentra mucho menos diversificada. Son regiones que deben incluirse en un desarrollo más equilibrado del Área Atlántica porque se encuentran muy a la zaga de otras áreas y acumulan numerosas carencias. Dentro de esta categoría, algunas presentan debilidades inherentes más importantes que las otras, especialmente causadas por el gravísimo fenómeno de la despoblación y el aislamiento geográfico. Por consiguiente, es esencial diferenciar entre “sub-áreas de integración de gran potencial” y “sub-áreas de integración débiles”.

No es necesario trazar el perfil perfecto de las sub-áreas que pertenecen a cada uno de los tres tipos de sub-áreas debido al hecho de que los límites que las separan están poco definidos, encontrándose todas ellas entretajadas y solapadas en grado sumo.

#### *Cooperación interregional atlántica*

Las regiones atlánticas se adhieren firmemente a la cooperación interregional. Un análisis cualitativo, realizado a través de unos casos-tipo determinados, ha permitido identificar el impacto de la cooperación interregional en el programa INTERREG III B. También ha confirmado el valor añadido de la cooperación interregional para el desarrollo de las regiones atlánticas y la estructuración de la costa atlántica.

- Muchos de los proyectos se ocupan de temas marítimos. Estos proyectos demuestran que, en cuanto a área de cooperación, el Océano Atlántico es un caso especial.
- Algunos de los temas de los proyectos de cooperación y sus correspondientes redes deben desarrollarse con una perspectiva a largo plazo, incluso creándose estructuras de cooperación permanente.



- Los socios del programa INTERREG tienen la oportunidad de desarrollar nuevas redes y posibilidades de mejora.
- Los proyectos de cooperación interregional dan “ambiciones europeas” a los actores de los territorios implicados.
- La interfertilización entre las redes podría ser especialmente propicia en el futuro.
- Sin embargo, algunos proyectos carecen de masa crítica, y deberían desarrollarse. Algunas redes son incompletas, especialmente las que se ocupan de temas importantes como los de la integración de la gestión de la zona costera.

### *Conclusiones*

- El Área Atlántica en sí misma no representa una “zona de desarrollo integrado” en el sentido del término del Esquema Territorial Europeo (ETE).
- La estructuración de las sub-áreas motor y sus conexiones con las sub-áreas de integración es un objetivo esencial que debe conseguirse si se desea reforzar su interdependencia operativa de las capitales nacionales.
- El nivel de prioridad de desarrollo del policentrismo en el Área Atlántica es el nivel *meso* (nacional).
- Debería definirse qué zonas de desarrollo se encuentran dentro del Área Atlántica según las sub-áreas motor, examinando cómo se pueden integrar las regiones de alto potencial o débiles.
- La cooperación interregional, interfronteriza y transnacional desempeña un importante papel en la estructura de las sub-áreas policéntricas y la costa en su totalidad.

### **Pautas estratégicas para el desarrollo del área atlántica**

Teniendo en cuenta los resultados del análisis de propuestas del ASDP, la estrategia de desarrollo persigue dos objetivos principales, a dos niveles:

- Establecer un sistema para reforzar los proyectos y áreas de desarrollo basado en la conexión gradual entre las sub-áreas motor y las de integración, especialmente mediante políticas territoriales y sectoriales destinadas a: mejorar su competitividad (superar las principales debilidades identificadas y/o explotar sus ventajas comparativas con respecto a otras áreas); realizar su estructuración territorial interna (reforzando redes en áreas tales como transporte e infraestructuras colectivas, lo que requiere de una nueva cooperación territorial proactiva); mejorar la accesibilidad y conectividad con respecto a otras áreas externas, tanto a nivel nacional como internacional. A este respecto, las

conexiones entre las sub-áreas motor y las sub-áreas de integración (especialmente las más débiles según la evaluación estratégica) se convierten en un objetivo muy importante.

- La promoción de la cooperación interregional a nivel atlántico, que debe construirse en torno a una cooperación proactiva interregional más sólida basada en un grupo de temas fijos y de proyectos de estructuración que conjuguen los intereses comunes de las regiones atlánticas e incorporen características específicas y hagan valer la identidad del Área Atlántica dentro de Europa como un todo. Las ciudades también deben implicarse en esta iniciativa, asociándose con las Regiones.

Las dos pautas anteriores hacen referencia a la introducción de políticas a dos niveles diferentes: al nivel de las sub-áreas atlánticas, dirigiéndose a las políticas regionales, interfronterizas y nacionales en particular, y al nivel del Área Atlántica como un todo, básicamente refiriéndose a las políticas de cooperación interregional y a algunas políticas sectoriales nacionales.

#### *Futuros proyectos y áreas de desarrollo dentro del Área Atlántica*

El objetivo no es cambiar una escala (sub-áreas) por otra (Área Atlántica) sino reflejar en términos concretos la necesidad de considerar la acción (y la cooperación) a dos niveles distintos y complementarios.

El análisis elegido es el resultado de un doble requisito: garantizar una mayor solidaridad entre las zonas costeras y el interior y ayudar a mejorar la integración de zonas frágiles y responder a la necesidad de estructurar áreas de desarrollo que dependan menos de las capitales.

La visión estratégica identifica claramente cinco grandes proyectos y áreas de desarrollo.

- El Área Atlántica británica: la principal preocupación es la necesidad de gestionar conjuntamente el mar de Irlanda y sus costas.
- El Área del noroeste francés: esta área está muy relacionada con París, y también incluye las sub-áreas de gran potencial de integración adyacentes.
- El Área francoespañola: el mayor problema es crear conexiones adecuadas entre los dos componentes nacionales reforzando la cooperación interfronteriza. Se necesitan soluciones adaptadas, que tengan en cuenta las limitaciones medioambientales específicas del entorno montañoso.
- El Área del oeste de la Península Ibérica: esta zona se caracteriza por su papel como “punto de transición” entre tres mundos: Latinoamérica, África y Europa. De hecho, las regiones atlánticas están destinadas a jugar un papel cada vez

mayor como interfaz entre Europa y los continentes de ultramar, de América o África, en el contexto de una globalización cada vez mayor.

- El Área del sur de la Península Ibérica: este área es un caso particular ya que posee una doble identidad atlántica y mediterránea.

Estas áreas deben considerarse componentes de pleno derecho de la unidad total formada por el Área Atlántica, y bajo ningún concepto deben considerarse posibles fronteras a la hora de definir las nuevas áreas para implantar fondos estructurales. Para cada uno de estos proyectos y áreas de desarrollo se han propuesto tres categorías principales de políticas recomendadas:

Las territoriales: prevén nuevas territorialidades urbanas policéntricas dentro de las regiones; por otra parte, implican orientar al entramado de ciudades de relativamente tamaño medio en cada una de estas sub-áreas para que cooperen y establezcan lazos las unas con las otras, con el fin de desarrollar sinergias que les ayuden a mejorar su exposición internacional. Es también el papel de la UE, los Estados y las Regiones ayudar a las ciudades a desarrollar las acciones necesarias para mejorar la red del Área Atlántica en general, así como en las sub-áreas. Por otra parte, la necesidad de luchar contra la despoblación de zonas rurales y sus efectos requiere de propuestas adaptadas y específicas a cada contexto individual.

Las sectoriales: especialmente en cuanto a accesibilidad y transporte, investigación-desarrollo-innovación, medio ambiente y protección contra riesgos.

Recomendaciones con respecto a la conexión con otras sub-áreas: de nuevo, las cinco formas principales no deben considerarse zonas cerradas independientes. En lugar de eso, la idea es especificar recomendaciones para aumentar la cooperación, especialmente en materia de transporte (por ejemplo, conexiones inter-canal) que fomenten una mayor integración del Área Atlántica en general. Además, también deben tenerse en cuenta las medidas referentes al desarrollo de relaciones con otras entidades geoeconómicas europeas o mundiales de importancia.

#### *Refuerzo de la cooperación interregional atlántica*

Las propuestas del ASDP vienen de formas complementarias a dos niveles territoriales, una al nivel del Área Atlántica en su contexto general, y la segunda al nivel de las sub-áreas de desarrollo. Las propuestas siguientes hacen referencia al Área Atlántica en su totalidad. Sin embargo, no existe ningún tipo de conflicto entre estos dos niveles y algunas de estas propuestas se pueden adoptar de forma más local.

Estas propuestas se centran en torno a tres temas principales: la dimensión marítima, tema fundamental de identidad del Área Atlántica; la promoción del desarrollo sostenible de las áreas rurales atlánticas y el refuerzo de las redes aumentando el intercambio de experiencias.

Dentro de la dimensión marítima, se han identificado cuatro temas principales: transporte marítimo y seguridad; gestión sostenible de la costa atlántica y del entorno marino, investigación; desarrollo e innovación en el campo de los recursos marinos y promoción de la cultura e identidad atlánticas.

Dentro del fomento del desarrollo sostenible de las áreas atlánticas rurales se han identificado cinco temas principales: muchas zonas rurales delicadas se encuentran expuestas al riesgo de despoblamiento; es necesario establecer una asociación entre la costa y el interior; las nuevas políticas agrícolas comunes deben servirnos de inspiración; la investigación debería basarse en los recursos naturales del área atlántica y deberían examinarse las conexiones entre los servicios públicos y las necesidades de la población.

Dentro del refuerzo de las redes de intercambio de experiencias y cooperación se han identificado tres temas principales: gestión medioambiental; desarrollo de investigación, innovación y centros de competitividad y refuerzo de las ciudades que son nodos de transporte.

## 1. INTRODUCTION

The Atlantic Area is defined by the very thing that gives it its obvious unity, in other words, the presence of the ocean. The term “Atlantic Area” refers to one of the main groups of European regions formed under the INTERREG III B community initiative for transnational co-operation, and corresponds to the Atlantic seaboard – in the broad sense of the term - of the European continent. It therefore concerns a number of regions in the European Union’s “Atlantic” countries: Ireland, the United Kingdom, France, Spain and Portugal.

However, even a very cursory examination of the contours of this area immediately raises the question of its heterogeneity. What exactly are the criteria that have led such dissimilar regions - the very rural (Central Iberia, Central France and North Scotland), European metropolises (Dublin, Lisboa, Manchester-Liverpool, Birmingham, Nantes and Bilbao), areas undergoing industrial restructuring, intermediate cities and even island territories - to unite together under the same spatial banner?

As far as the regions are concerned, the awareness of belonging to some vaster territorial unity like the Atlantic seaboard goes back much further than the European Union’s creation of an “Atlantic Area” in 2000. For centuries, the “Atlantic-ness” of these regions has kept them together despite and beyond their fundamental differences. However, throughout history, the common points uniting them have gradually changed. Prosperity and dynamism may for a long time have been their most remarkable common factor, but today the Atlantic regions are united by their relative marginalisation from the most dynamic areas of the continent (the Centre of the European Union) and thence their awareness of a certain peripherality in relation to the “heart” of Europe.

For several centuries, the Atlantic seaboard was indisputably the most dynamic area of Europe and its maritime-related prosperity was most certainly the prime common denominator of all Atlantic regions. The towns in this area enjoyed a very favourable position as the interface between land and sea, which they exploited with great success. The Atlantic regions were at the heart of the maritime trade.

From the 15<sup>th</sup> to the 18<sup>th</sup> century, the economy was predominantly organized around maritime trade, which favoured the Atlantic territories. “The sea has always played a major part in dynamic relations (great discoveries, triangular trade, fishing, wine, wool etc.)” (Morvan, 1996).

During the 15<sup>th</sup> century, the great conquerors and merchant sailors all set out from the beachhead harbour towns of the main trading posts. With the first discoveries, Europe’s economic power switched towards the west. Sevilla in Spain, and Lisboa in Portugal, spread the influence of the European Atlantic seaboard across to other continents, including Asia, America and even Africa, taking over from Venice and Genoa. The ports of Spain and Portugal became the gateway through which the great explorers set out on their voyages. All eyes began to turn towards the land’s end of Europe, the interface between it and those faraway unknown lands bursting with rich promise, the Atlantic seaboard.

Trade then began to develop rapidly between Europe and the American and African continents on the one side, and with the rest of Europe on the other. We might for example mention the salt trade (Le Bouedec, 1997), which irrigated the rest of Europe from two main production zones, one in the South of Portugal (in the region of Setúbal) and the other in the Kingdom of France (between the Gironde and Loire regions). Salt was used everywhere for salting food and

preserving herrings. North/South short sea shipping partly originated in the transport of salt from the Atlantic towards the North Sea and Baltic Sea.

This Golden age continued into the 18<sup>th</sup> century and thanks to the triangular trade, other Atlantic cities also began to enjoy economic boom and prosperity. Bristol became England's second most important city after London, and Bordeaux and Nantes became an extremely important part of the French economy. Like Brest, both of these cities witnessed spectacular growth and they were so attractive to outsiders that the inflow of migrants doubled their populations in less than a century. Bordeaux, which thanks to a record demographic increase of 146% between 1700 and 1790 rose from seventh place to being France's third most important town, attracted merchants from as far away as Hamburg and Lübeck (Chaline, 1996)...

In the following century, the ports of Bilbao, Glasgow and Liverpool entered into the full swing of the Industrial Revolution and quickly seized every opportunity for development being offered by nascent capitalism.

The Atlantic towns have well and truly written their dynamism into the History books, and carry its memory with them to this day. The Celtic legacy of the 6<sup>th</sup> century has left an indelible mark in the shape of an architectural heritage and inherent identity now exploited by the tourist industry, and the regions most imbued with this culture organize numerous exchanges with each other. The Atlantic Ocean towns have also spread European culture to every other continent and still maintain privileged ties with the American continent, as they have throughout the ages. The main foundation of the unity between the regions along the Atlantic seaboard has always been their maritime dimension.

Today, in a context of strengthened and growing globalisation, the Atlantic cities and regions have a greater role to play in the development of Europe's intercontinental relations by enhancing their historic heritage and geographic position, which make them an interface between Europe, Africa and the Americas. This challenge, as much as internal reasons, justifies the search for a common development strategy.

Once again, the Atlantic regions have taken a pro-active initiative in favour of the construction of a development project based on the principles laid out in the ESDP: to become a competitive area and integral part of the global economy. The ASDP, promoted by 19 Atlantic regions with the support of the INTERREG III B Atlantic programme, was initially based on the Atlantic Area strategic evaluation. In its conclusion, it puts forward strategic proposals for the development of the area as a whole, and for each of its component sub-areas of development, as well as a number of proposals structuring transnational inter-regional co-operation.

This document has been prepared especially for the presentation to the public and the General Assemble of 28th June. It sets out a summary of all the elements that are the subject of detailed analysis in the intermediate reports and in the two volumes of the final report on the study, currently in their final stages.

This volume has two purposes. The first is to offer a summary of the conclusions emerging from the elements of analysis set out in the intermediate reports, and to identify which territories within the Atlantic Area (urban systems, regions or sets of regions) are the best equipped for a role in the polycentric organisation of this area, or conversely, those whose weaknesses are holding them back from being included in such a set up. The first part is therefore devoted to a kind of inventory of the current situation and to a concise analysis of the current territorial set-up of the Atlantic Area.

Secondly, we shall seek to present a vision for the development of this area, which will help to define a possible and desirable framework for the future. The aim of this framework is to facilitate a statement of the main recommendations on territorial and sectoral action and public policies (the subject of the last part of this document).

## **2. TERRITORIAL AND URBAN ATLANTIC SYSTEMS**

In order to carry out a strategic evaluation of the Atlantic Area, four levels of spatial analysis are distinguished, corresponding to four levels of urban and regional systems, which may not necessarily coincide with any administrative divisions. It is not so much a question of proposing a hierarchy of systems as of taking into account the wide spatial variety in Europe's Atlantic seaboard, distinguishing between different areas for which strategic analysis and proposals must necessarily be differentiated. The method used by the ASDP consists therefore of classifying the Atlantic urban and regional systems into 4 categories which allow to make a strategic analysis: (see maps 1 and 2)

- metropolitan regions
- intermediate cities
- medium-sized towns
- rural areas.

This chapter aims to give a more detailed definition of each of these.

### **Level I – Metropolitan Regions**

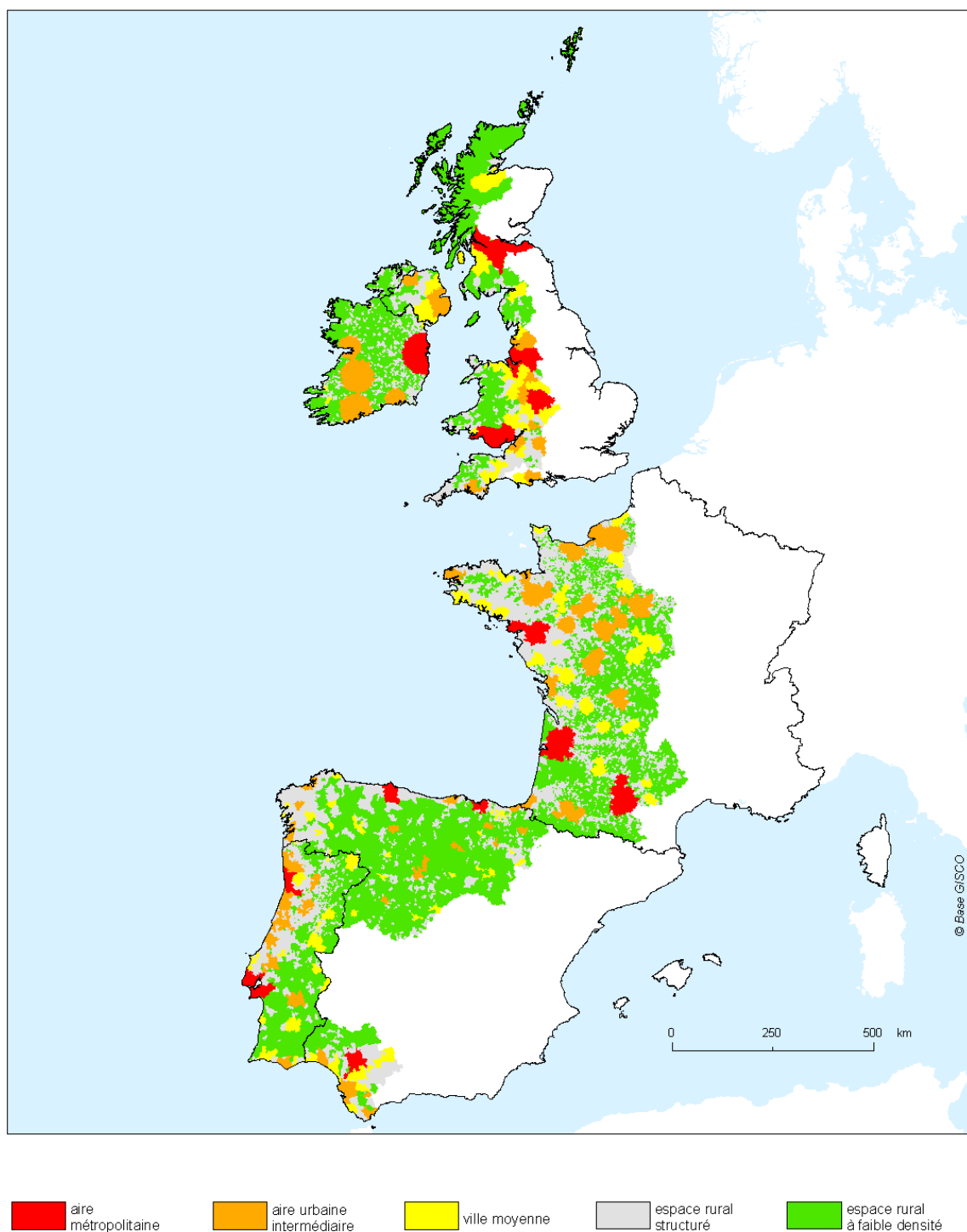
Marcel Roncayolo defines the metropolis as “a very large city, expressed in terms of the size of its population and that of the agglomeration it dominates, its economic, political, social and cultural weight, as well as by its power of attraction and influence”<sup>1</sup>. The term metropolis is often used to describe the largest centre in the urban structure of a vast, supra-regional, geographic area. As a ‘control centre’ the metropolis exercises real economic, political and administrative command over a supra-regional scale area. According to this definition, the metropolis is characterised by its strong influence, not only over the surrounding region, but also nationally and internationally. In other words, it is a locus for activities, and exercises functions of an international dimension.

Another key characteristic of the metropolis is that it functions in a network with the other large cities and medium-sized towns that surround it. The metropolis thus has a high degree of connectivity, and plays the role of key node in all the networks that carry flows of people, goods, services and information.

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<sup>1</sup> Marcel Roncayolo (2000), *Villes et Territoires*, Paris, Gallimard, 285 pp

**Map 1: Location of the different territorial and urban systems in the Atlantic Area**

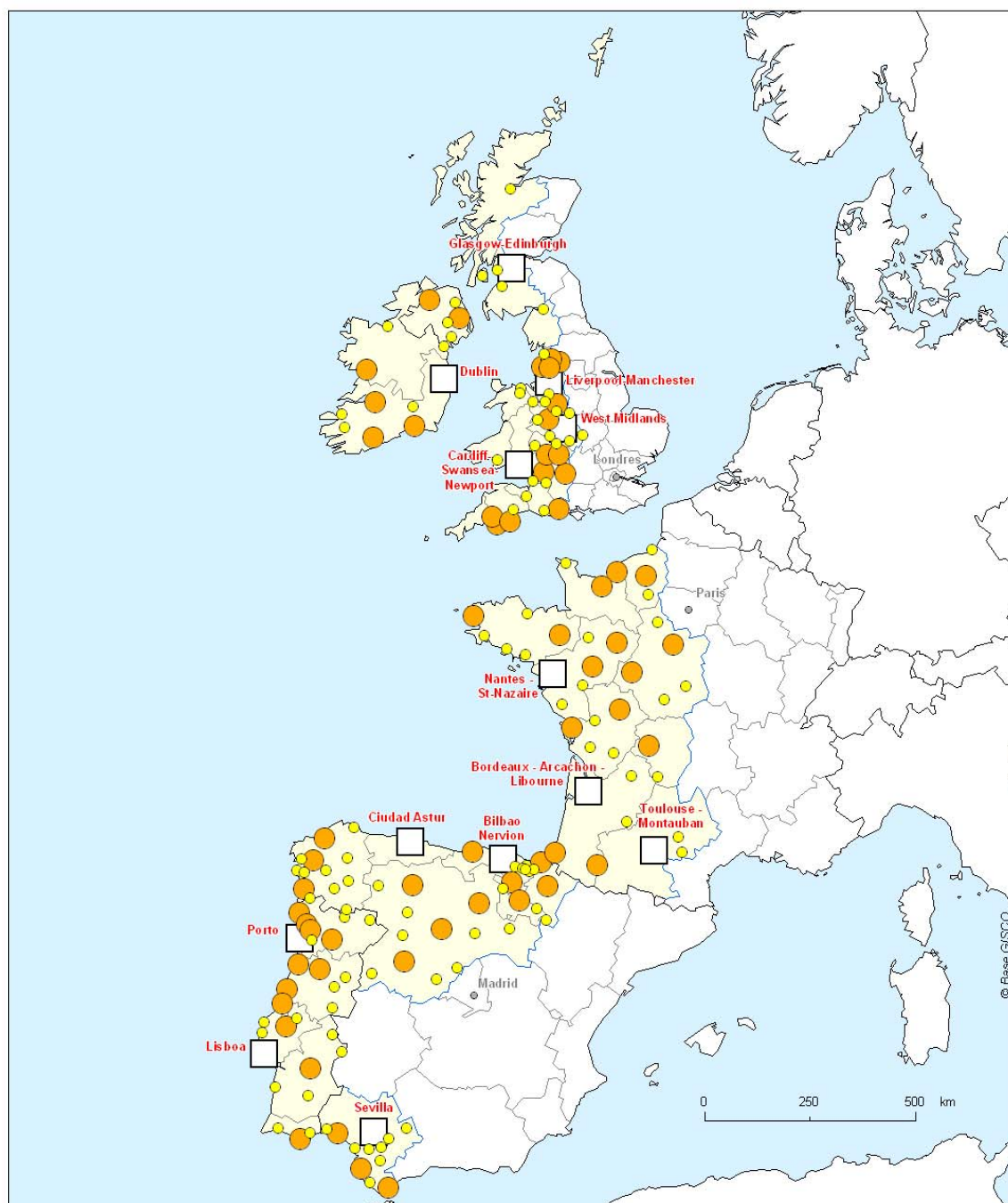


Source : Experts projet SDEA

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**Map 2 : Typology of systems**



- aire métropolitaine
- aire urbaine intermédiaire
- ville moyenne

Source : Experts projet SDEA

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“The urban translation of globalisation”<sup>2</sup>, the metropolis is, in sum, an engine for globalised development, a locus of power and decision-making, production and dissemination of knowledge, and a source of high value added. There is no doubt that globalisation has reinforced the capacity of a small number of cities to attract and concentrate new internationalised activities, for which they can provide a significant volume of rare services, the existence of a qualified work force, and possible a sizeable local market.

However, not all these aspects are found to the same extent in all large cities, and size is not necessarily the precise reflection of a city’s potential to be ranked among the metropolises. Certain metropolitan areas, for example Frankfurt in Germany, that are smaller in size may rank higher in the global hierarchy of metropolises than some ‘mega-cities’. Generally speaking, a metropolis is defined not so much by its size as by its international influence, its strategic position in relation to the nodes of the major global networks, and its higher functions.

It is this definition of the metropolis that we shall use in our analysis of the Atlantic urban areas which bring together a large number of diversified functions, in particular in the higher tertiary sector. These urban entities are either mononucleated<sup>3</sup>, or have an ‘archipelago’<sup>4</sup> structure. In the latter case, even though size is not a decisive criterion, we will take as a basis a minimum population of 500,000 in the urban core. In view of the above-mentioned characteristics, the urban areas that will be included in this category of metropolitan regions are those whose influence extends beyond the region and sometimes even beyond the limits of the Atlantic Area.

In the perspective of the ASDP, which aims to identify urban areas with the potential to become the principal nodes in a polycentric Atlantic Area, and for which measures to enhance this potential are recommended, it is important not to exclude from this first level of analysis the cities or urban systems that are important at the scale of the Atlantic Area, even though they may not have all the characteristics of a metropolis with international influence.

The weakness of the urban structure in the Atlantic Area at this first level is obvious. None of the large cities would appear, if only on the basis of size, to be in a position to compete seriously with the major European cities. Most of them could be described as ‘incomplete metropolises’ in that they do not have the full range of higher functions, and they do not always have a strong international influence permitting them to compete on the ‘territorial market’ with the other major urban areas of the pentagon.

In the first analysis, very few Atlantic urban areas can be classified as metropolitan regions.

In Portugal, only Lisboa and Porto can be included in the list of Atlantic metropolitan regions. Lisboa, together with the 17 municipalities that make up the metropolitan area, has a total population of nearly 2.662 million, equivalent to 26.9% of the country’s population. The population of the 13 municipalities of the metropolitan area of Porto is 1.552 million. Together, Lisboa and Porto concentrate nearly 40% of the population of mainland Portugal.

In Spain, Sevilla (with a population of 1.255,820, of which 56.5% live in the urban core) and Bilbao-Nérvion (population of 920,606) are clearly the two principal metropolitan regions at the

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<sup>2</sup> The expression coined by C. Lacour and S. Puissant (1999), in *La métropolisation, croissance, diversité, fractures*, Paris, Anthropos, 1999

<sup>3</sup> We prefer to use this term here rather than the term monocentric, since the latter, applied to an urban entity, could give the impression that we are talking about a city the core of which is concentrated in a single place, generally the historic centre. Similarly, we will use the term polynucleated when we are referring to the ‘bunches of grapes’ of cities that form a single and continuous urban region. The term polycentric could suggest a single city with a central zone that is spread over several districts.

<sup>4</sup> According to the expression used by P. Veltz in *Villes, territoires et mondialisation*, Paris, Anthropos.

European scale. Both are characterised by the size of their urban core, but are also the focal point for numerous smaller neighbouring towns and cities (Jerez-Cadiz or Huelva in Andalucía, Burgos, Santander, Torrelavega and other Basque cities in northern Spain...). Both have a structuring impact on a dense urban fabric. In addition to these two metropolitan regions there is also the polycentric and discontinuous metropolitan area of Asturias. The conurbation made up of Gijón, Oviedo, Aviles and four smaller municipalities forms a sprawling metropolitan region with a total population of 862,895, despite its relatively mediocre accessibility<sup>5</sup>.

In France, three urban areas can be considered at this first level of the French urban structure: Nantes-Saint-Nazaire, Bordeaux and Toulouse. Each of these conurbations, if we include the immediate medium-sized towns that are dependent on them, has a population of around one million. The Bordeaux-Arcachon-Libourne conurbation, together with the 265 *communes* which are part of it, forms a metropolitan area with a population of 1.085,438 (753,931 for the urban unit of Bordeaux alone). Toulouse-Montauban forms an enlarged urban system with a population of 2.551,685 spread over 388 *communes*. Nantes-Saint-Nazaire has a total population of 672,809 spread over 139 *communes*. Together these three 'metropolitan' urban systems represent 18.73% of the population of the French Atlantic Area.

In Ireland, Dublin is the only city that can be ranked as a metropolitan region according to the criteria of our study. With a population of 1.600,000 (500,000 in the urban core), its size places it alongside the other agglomerations already mentioned. Greater Dublin is home to more than 41% of the population of Ireland.

Lastly, in the United Kingdom four metropolitan systems stand out: Manchester-Liverpool (population of approximately 3.7 million of which 2.360,000 for Greater Manchester), West Midlands (2.700,000), the Welsh polynucleated system of Cardiff-Newport-Swansea (population of nearly 800,000 or 1.800,000 if we include all the nearby localities that can be counted as integrated in the metropolitan region, and lastly Glasgow (1.587,000). Observers agree that Glasgow and Liverpool are too weak economically, being both too 'over-specialised' and not sufficiently competitive, to be included in the same category as Manchester and Birmingham. It is appropriate however to classify them as metropolitan regions, since both appear to be increasingly integrated with the 'mega-cities', Liverpool being in fact part of the continuous urban region of the Mersey Belt, of which Manchester is the dominant centre. While Glasgow cannot alone rank as a metropolitan region, its proximity and growing inter-dependency with Edinburgh cannot be ignored, even if the latter is not formally part of the Atlantic Area. It is therefore proposed to include Glasgow in level I, on the grounds of its situation as a component of a metropolitan urban system that is partly within and partly outside the Atlantic Area.

Together, the statistical and cartographic approaches allow us to identify only a dozen metropolitan regions in the Atlantic regions of the five countries. This appears a weak overall total for an area with a population of more than 75 million covering more than 28% of the surface area of Europe (EU15).

A number of different studies carried out at European level have put the importance of the Atlantic metropolises as cities with international influence into perspective. On the scale of the continent, some of them cannot claim to have the status of first rank city or urban system.

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<sup>5</sup> The development of air links with London, Paris and Madrid, the proposed link with the European high-speed train network, and the improvements already observed in the road network mean we can assume in the medium term a significant improvement in accessibility of the Asturian metropolitan region.

The report ESPON 1.1.1<sup>6</sup>, for example, establishes a typology of Metropolitan European Growth Areas (MEGAs) with 4 sub-categories according to 4 groups of indicators. All the cities listed above are either not listed among the 76 MEGAs identified in Europe<sup>7</sup> – like Nantes, Cardiff or Ciudad Astur, or belong to the 2<sup>nd</sup> category (Manchester and Dublin), 3<sup>rd</sup> category (Lisboa, Toulouse, Glasgow, Birmingham, Bilbao) or 4<sup>th</sup> category (Porto, Sevilla, Bordeaux, together with Le Havre and Cork that we have included among the metropolises in accordance with our own classification criteria). In total, 13 Atlantic cities are listed as MEGAs, but none in the 1<sup>st</sup> category.<sup>8</sup>

In a study recently published by the DATAR (*Délégation à l'aménagement du territoire et à l'action régionale* – French government agency for regional development) on the influence of European cities, based on a multi-criteria evaluation using 15 different criteria, Lisboa is the only city that emerges as a city with a significant European influence. Lisboa is ranked 13th out of the European cities. All the other Atlantic cities are much lower down in the list.

Another, older, study<sup>9</sup>, confirms this secondary position of the Atlantic metropolises. Although Bristol and Manchester are included in the category of regional metropolises with a strong international sphere of influence, they are also characterised by specialised and incomplete functions. The other Atlantic cities are defined as peripheral regional metropolises with a limited international influence, weak tertiary sector, underdeveloped international functions and insufficient accessibility.

Lastly, the 'Study on the construction of a polycentric and balanced development model for the European territory', published by the CPMR in 2002, includes only six Atlantic urban systems among the 'rising stars'. Four of these are in the UK (Bristol-Cardiff-Swindon, Birmingham, Manchester-Liverpool, Glasgow-Edinburgh), one is in France (Toulouse) and one in Portugal (Lisboa). Bilbao, together with the Basque Eurocity, is classified among the 'promising systems'. Porto, the Galician conurbation, the Asturian system, Bordeaux and the Loire-Bretagne system (Nantes-Rennes and the other towns in Brittany) are ranked among the 'dilemma systems'. These results demonstrate yet again, using a different system of classification, the weakness of the Atlantic metropolitan fabric.

On the whole, no Atlantic metropolis can claim to be among the top level of international metropolises, otherwise known as "global cities", to use the term coined by S. Sassen.<sup>10</sup>

## **Level II – Intermediate cities and their networks**

Polycentrism in Europe can only, by definition, be multi-scalar and only makes sense as a strategy for spatial organisation on the scale of the continent if the public policies implemented at the other spatial levels – the European macro-regions such as the Atlantic Area, the nation states, regions, and even the agglomerations themselves – are coherent with and result from a shared commitment to achieving a more spatially balanced development.

In the Atlantic regions, the prospect of a fully balanced spatial development is certainly illusory, in view of the scale of the existing imbalances and the development dynamic of these regions,

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<sup>6</sup> See ESPON report 1.1.1 « Potentials for polycentric development in Europe »

<sup>7</sup> Within the 25 EU countries and 2 accession countries due to join with the next wave of enlargement

<sup>8</sup> London and Paris are not included in this classification.

<sup>9</sup> Cattán, Nadine et alii, *Le système des villes européennes*, Paris, Editions Anthropos, 1994

<sup>10</sup> S. Sassen, 1991, *The Global City*, Princeton University Press, 531 pages

essentially spatially heterogeneous and often favouring the coastal areas; a fact that is not always a handicap, since it is also a result of exploiting the potential of the maritime dimension.

On the other hand, the structuring of the areas outside the metropolitan regions through a network of sufficiently dense urban complementarities is necessary if one wishes to overcome the problem of the lack of integration between areas, notably between the coastal and interior areas. This is the key challenge for the development of the intermediate cities. In addition, the metropolitan regions in the Atlantic Area would appear in the first analysis to be too few and too weak to alone play the role of ‘counterweight’ to the pentagon. In themselves, the Atlantic metropolises are not strong enough to permit the formation of a real macro-region of the Atlantic seaboard as recommended in the ESDP in its proposals for a polycentric Europe.

Raising the question of polycentrism in the Atlantic Area comes down in fact to asking what are the development prospects for the intermediate cities as a network – a network that means more than just promoting urban clusters or inter-district partnerships. The search for functional complementary must go further than mere ‘neighbourhood associations’ or groupings that are justified simply on the grounds of criteria such as size or proximity.

It is in fact a matter of exploiting the higher functions (business services in particular) and influence of these cities, not through isolated and individualist actions, but by encouraging the formation of new inter-urban relationships. Polycentricity is built up on the basis of ‘bunches of grapes of cities’, to use the expression coined by Kunzmann (1998)<sup>11</sup>, structured in more or less permanent networks, and capable collectively of offering a sufficiently attractive level of higher services<sup>12</sup>. This strategy also implies reinforcing the material basis for flows of people, goods, and information and communication.<sup>13</sup>

The intermediate cities are called upon to play an important role in establishing functional polycentricity. They are in fact a key element, since they are a pivot between two very different levels in the hierarchy of urban systems. They can establish links not only with the European metropolitan regions, but also with the more rural areas and with other towns and cities of the same ranking. This is why a certain importance is indirectly accorded to them in the ESDP, which states that, “In a polycentric urban system the small and medium-sized towns and their inter-dependencies form important hubs and links, especially for the rural regions.” (Committee on Spatial Development, 1999, p. 24).

Whereas the highest level in the urban structure is relatively weak, the network of intermediate cities, in contrast, constitutes a real asset to the extent that these cities form a network covering and linking the whole area. It is a dense network, and overall quite evenly distributed across the Atlantic Area as a whole, even if the cities do not all have the same demographic and economic potential.

The different regions do not all have the same number of level II cities, but very few regions have none at all. It is worth noting simply that their presence is weakest in the west of Ireland, on the Celtic fringes of the United Kingdom, in the south-west of France and in the interior regions of Spain and Portugal.

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<sup>11</sup> Kunzmann, K. R., 1998, Planning for spatial equity in Europe, *International Planning Studies*, 3 (1): 101-120

<sup>12</sup> The image of the bunch of grapes is pertinent here in that it illustrates the idea of a group of inter-dependent units that are connected to each other, like the individual grapes in a bunch.

<sup>13</sup> This question, which calls for a strategic analysis of all the inter-urban networks, will not be dealt with in the limited framework of this chapter.

Another point to note is the wide variety in terms of size of this category of cities from one country to another. The experts have included in this category those cities or clusters of cities that have a high national visibility. The range in terms of size is very wide, since for Britain, France and Spain cities with a population of several hundred thousand are included, whereas the Portuguese and Irish cities included have populations of only some tens of thousands. This wide variety in terms of size can be found also within the countries themselves

Such disparities can be justified, as we have seen above, by the need to take account of the different national contexts. However, in the next stage of the study, we shall establish a typology of these intermediate cities dividing them into sub-categories according not only to size (population) but also to a number of other criteria, enabling us to identify among them those cities most likely to take the best advantage of public policies aiming to make them into direct relays of the metropolitan regions in the polycentric network covering the Atlantic Area. Not all the cities have the potential to play such a role, and generally speaking they could not do so in an isolated fashion. This is another way of encouraging them to network on the basis of complementarity.

In Portugal it were identified 11 intermediate city systems, 10 of which are in fact composed of urban networks made up of several cities situated in close proximity, and which consequently themselves have a polycentric structure. Together these urban areas represent a population of 2 363 000 million, equivalent to 24% of the population of mainland Portugal. It is worth noting – and this is in fact a major specific feature of the urban system in Portugal – that these intermediate cities (or systems) are all relatively small. Only 3 of the urban cores of these system have a population greater than 100,000. Average total population of the systems is 214,000, and in 4 cases, in the north-west of the country and close to the coast, it is more than 300,000.

Overall, the sizes of the intermediate cities and systems vary widely, with populations in 2001 ranging from 417,000 (for the Ave valley system, the main town of which is Guimarães, with a population of 98,000) to only 57,000 for Evora, the capital of Alentejo. Evora is classified as an intermediate cities because of its status as a regional capital, the importance of its university, and the fact that its historic centre is a UNESCO world heritage site. The intermediate cities and systems identified in Portugal are Viana do Castelo-Ponte de Lima (main town Viana do Castelo), Braga-Cávado (main town Braga), the Ave valley (main town Guimarães), Entre Douro e Vouga (Feira), Aveiro-Baixo Vouga (Aveiro), Coimbra-Baixo Mondego (Coimbra), Viseu, Evora, Vila Real-Régua-Lamego (Vila Real), Leiria-Marinha Grande (Leiria), Santarém-Lezíria do Tejo (Santarém), Faro (Faro).

Among these cities, 4 are characterised by major commercial harbour functions: Viana do Castelo, Aveiro, Figueira da Foz, part of the Coimbra – Baixo Mondego system, and Faro. The latter, which is home to Portugal's second international airport in terms of passenger numbers (ahead of Porto), plays an essential pivotal role in the distribution of seaside tourism in Portugal and the south of the Iberian peninsula.

It may be noted that as part of the Portuguese local government reform, the systems of Braga-Cávado and Guimarães-Ave are to be banded together in a single metropolitan area (in the administrative sense of the term) with a population of almost 700,000 inhabitants. It can therefore be considered that we are faced here with a territorial reality which, in demographic terms, is close to that of the metropolises. However none of the cities that make up this emerging

system has a sufficient range of administrative, economic or cultural functions to claim to be in the top level.

One case that remains to be analysed is that of the city of Elvas-Campo Mior in Alentejo (population 32,000). From a strictly national point of view, its size and functions would place it among the small towns in the sparsely settled rural areas. However, if we take into account its cross-border situation it should be considered as an integral part of the intermediate system that includes Badajoz and Mérida on the Spanish side. These two cities were not included the study however, since they are located in a region that is not part of the Atlantic Area.

For Ireland, intermediate cities urban areas structured around smaller sized main towns were included. Four urban areas with a population of more than 100,000, structured around smaller centres, were identified: Cork, Galway, Limerick and Waterford. It should be noted here that the main towns in these intermediate urban areas have a population well below 100,000, with the exception of Cork (123,062 in 2002).

In the three other countries, on the other hand, the classifications of intermediate cities appear to be more homogeneous.

In Spain, two sub-categories clearly emerge: intermediate polynucleated systems and those structured around a single core. For both categories, the population threshold of 100,000 inhabitants has been retained. Six systems can be included in the first sub-category, with populations ranging from 350,000 to 650,000 (San-Sebastián-Irun, Bahia de Santander-Torrelavega, La Coruña-Ferrol-Rias Altas, Vigo-Pontevedra-Rias Bajas, Bahia de Cadiz-Jerez, Valladolid-Palencia). In the second sub-category nine more concentrated and mononucleated urban areas (Vitoria, Pamplona, Algeciras, Santiago de Compostela, León, Salamanca, Burgos, Huelva, Logroño) are also classified as intermediate cities.

The special case of San Sebastián-Irun needs to be underlined. This is in fact just one component (the largest in population terms) of a larger transnational system (with a population of 650,000), the Basque Eurocity, which includes Bayonne, Biarritz and Anglet on the French side. It could prove to have a strategic position along the Paris-Bordeaux-Madrid axis in the spatial organisation of the Atlantic Area.

Another special case is that already mentioned of Santiago de Compostela, which in spite of its small population (92,000; 123,000 for the agglomeration) constitutes an integrating centre of the 'Galician axis' and which, as such, plays a genuinely structuring role at the regional level.

The same distinction could be introduced for France, but 14 cities or urban systems have been proposed for this category. Their populations range from 227,396 to 765,149 (for the Rennes system, the urban core of which however has a population of only 272,000, and which for this reason cannot be ranked as a metropolitan region). Most are urban areas with a level of integration that is linked to very strong inter-dependencies between a main city and a number of smaller nearby towns. These are the systems or 'bunches of grapes' formed by the urban areas of Bayonne-Biarritz-Anglet (cf. the above observation concerning San Sebastián-Irun), Pau-Tarbes-Lourdes-Oloron, Limoges-Saint-Junien, La Rochelle-Rochefort, Poitiers-Chatellerault, Tours-Blois-Vendôme, Angers, Le Mans-Sablé-La Flèche, Orléans-Pithiviers-Chateaudun, Rennes-Vitré-Fougères-Dinard-Dinan-Saint-Malo, Brest, Caen-Bayeux, Le Havre, and Rouen. It may be noted that the urban areas of Rouen and Le Havre form a continuum along the Lower Seine valley, and together form an urban area whose overall size (population of 1.200,000) is close to

that of the metropolitan regions. However neither of the main cities has sufficient potential to give this conurbation a metropolitan configuration.

Altogether, the intermediate cities and systems represent 35,18% of the population of the nine Atlantic regions. In France they are the most significant level of urban and regional systems, from a demographic point of view, whether in relative or absolute terms.

In the United Kingdom, the density of intermediate cities appears to be much higher than in the four other countries. For an area that is smaller in terms of surface area, the experts have identified a total of 20 intermediate urban regions with populations ranging from 855,000 (Belfast) to just over 100,000 (Torbay). In addition to these two cities, the list of intermediate cities in the United Kingdom is comprised of Birkenhead-Chester, Ellesmere Port, Blackburn-Darwen, Blackpool, Burnley-Nelson, Preston, Londonderry (Northern Ireland), Warrington, Coventry-Bedworth, Telford, The Potteries, Bournemouth, Bristol, Cheltenham, Gloucester, Plymouth, and Swindon.

In sum, for the five countries, it can be noted that the selected urban units whose populations exceed, sometimes quite significantly, the threshold of 100,000, remembering that the dominant criteria is not that of size but that of the influence at least at regional level exercised by the urban area as a result of the intensity of its economic, social, cultural and political/administrative functions, and the range of services delivered. It is this approach that has sometimes led us to include smaller cities, especially in Ireland and Portugal, and on the contrary to classify as medium-sized towns those with a population of more than 100,000.

### **Level III – Medium-Sized Towns**

The medium-sized towns are at the lower end of the urban hierarchy. They are defined by more ordinary functions and delivery of basic services to firms and households. Although they are often within the sphere of influence of a metropolitan region or an intermediate city, their essential role can be analysed as one of sustaining an infra-regional area which does not necessarily correspond to a recognised administrative unit. Often handicapped by their small size, and above all by strong constraints of accessibility, the medium-sized towns nonetheless have a specific and rightful place in polycentric development as infra-regional centres in relation to their hinterland.

It should also be remembered that the medium-sized towns also play an important role in implementing the two other guidelines of the ESDP (apart from polycentrism) in that they help provide access, if not for the whole population then at least for a significant part of the population, to services and infrastructure (hospitals, secondary education, cultural facilities, etc.), and in that they are the loci for the implementation of local and sustainable development initiatives – if only for the enhancement of the remarkable cultural heritage which they often possess.

In this way, these towns play an essential role in combating the rural decline that threatens certain Atlantic Areas. This is one of the major arguments in favour of their inclusion in the ASDP analysis.

We shall classify in this category all the towns that, although they have a significant population, either do not have the full potential to be considered as intermediate cities, or are too remote and



isolated to be part of the integrated functioning of a metropolitan or polynucleated intermediate system.

Here again, the selection criteria must take account of national contexts. In Portugal or Ireland for example small towns with a population of no more than 30,000 or 40,000 are able to deliver a range of services (health, education, business, etc.) equivalent to that delivered by much larger towns in the other countries.

Looking at the map of Atlantic Areas, numerous medium-sized towns sustain a labour market area on the intra-regional scale. This gives the image of a relatively even distribution over the Atlantic Area as a whole. Because of the weakness of the metropolitan regional structure and the absence of intermediate cities in certain regions, there is good reason to focus special attention on these towns in the recommendations of the ASDP. Through the implementation of selective policies to exploit their complementarities, the search for an improved level of services and accessibility of these towns could be an appropriate policy guideline to combat the decline of the remote interior areas.

In Portugal, the group of medium-sized towns is very diverse – 16 mono- or polynucleated agglomerations have been identified, with populations ranging from 385,000 for the extensive sprawling urban area of Sousa-Baixo Tâmega (7 contiguous towns in a densely populated area) and 27,000 for Valença (with Cerveira and Monção).

The following urban areas are classified in this category: Sousa-Baixo Tâmega, Bragança, Castelo Branco, Covilhã-Fundão, Guarda, Caldas da Rainha-Oeste, Torres Novas-Entroncamento-Tomar, Torres Vedras-Oeste, Beja, Portalegre and Portimão-Lagos, that is to say towns or systems that have a population of more than 50,000. Cities that do not reach this threshold, but which nevertheless fulfil some important national functions, either administrative (chief city in a *distrito*) or economic (e.g. industrial and port functions in Sines), have also been included in this group.

The category of medium-sized towns in Portugal will also include 4 small but structuring towns, on account of their crossborder situation:

- Chaves which with Verin, in Galicia, it forms an important axis in this declining region)
- Valença do Minho which with its Galician partner Tui, forms a system of more than 40,000.
- Elvas, with Campo Maior ensure continuity, in Portugal, of the urban area of Badajoz;
- Vila Real Santo Antonio-Tavira which similarly have strong local links with Ayamonte.

Lastly, the bi-polar system of Sines-Santiago do Cacém (45,000 inhabitants), an important national logistics centre with links to the largest sea port (35% of movement of goods in ports of mainland Portugal), and which is currently receiving major public investment, should be included.

In total, the medium-sized towns represent a population of 1 165 000, that is approximately 12% of the population of mainland Portugal. Their average population is about 72,000, which in

general enables them to cover a living area on the same scale as a “*distrito*”<sup>14</sup>. Three cases only exceed a population of 100,000 inhabitants. These are Sousa-Baixo Tâmega, Torres Vedras-Oeste and Portimão-Lagos.

In Spain, too, this diversity emerges clearly from the analysis. Smaller towns (population between 20,000 and 100,000) in the least densely settled regions of the interior are included in this category because of the proximity functions they fulfil, at a scale that in general does not go beyond the *provincia*. The Spanish experts consider that in the least densely populated territories, in particular Castilla y León, the definition of medium-sized town needs to be extended to include smaller towns (between 15,000 and 20,000 inhabitants) which, in spite of their small population, have a wide area of influence and offer a range of functions, facilities and services that are characteristic of bigger towns elsewhere. However, much larger towns have also been placed in this level III category because of their limited regional influence, since they are part of areas falling directly under the influence of a higher-ranking city. This is the case of Zamora, Ourense, Lugo, Ponferrada, etc., or Avila and Segovia which depend directly on Madrid.

The polynucleated towns or systems included in this category are Eimar-Ermua, Durango, and the network of small industrial towns in the inland area of Guipuzcoa province in the Basque Country; Estella-Ayegui-Villatuerta and Tudela-Murchante-Fontellas in Navarra; Calahorra-San Adrian in La Rioja; Ponferrada, Zamora, Segovia, Avila, Aranda de Duero, Miranda de Ebro, Soria and Benavente in Castilla y León; Ourense, Vilagarcia-Vilanova de Arousa, Ribeira-A Pobra do Caramiñal, Noia-Outes, Monforte de Lemos, Viveiro, Verin (with Chaves in Portugal), Lalin-Sileda, Tui (with Valença do Minho in Portugal), Ecija, Arahál-Marchena, Lebrija-Las Cabezas de San Juan, Almonte-Bollulos-La Palma del Condado, Arcos de la Frontera and Barbate-Wejer-Conil in the Atlantic part of Andalusia. Ciudad Rodrigo is also included in this list on account of its cross-border situation and its links with Vilar Formoso and Guarda in Portugal. The category of medium-sized towns appears numerically weaker in Spain than in France or England. Between the numerous powerful intermediate cities (cf. preceding section) and the small towns there is a relative deficit of medium-sized towns. On the other hand, we should underline that many of the small towns with a population of between 15,000 and 30,000 have an apparently extensive sphere of influence (along the lines of the phenomenon also observed in Portugal and in Ireland, and even in certain French regions such as Limousin). This observation is particularly notable in Castilla y León and the Atlantic part of Andalucía.

The number of towns in Ireland included in this category is limited (as in the two preceding categories). Aside from Dublin and the four intermediate cities mentioned above, the urban structure in Ireland is characterised by a scattering of very small towns which form a network across a very rural area. Very few of them reach a sufficient critical level to be classified in the category of medium-sized towns: only Dundalk (population of 32,000) and Killarney-Tralee (34,000), Kilkenny (21,000) and Sligo (20,000) can be included.

In France, 21 urban areas are classified as medium-sized towns, the thresholds being generally higher than in the preceding cases. These are systems of towns with a population, in 17 cases, of more than 100,000 and in 3 cases of more than 200,000 (but with a core centre population lower than 100,000). These urban areas represent 17.96% of the total population of the French Atlantic Area. It should be underlined that a significant number of towns that, on their own, could have been considered as corresponding to the definition of medium-sized towns, have in fact been considered as part of the metropolitan region or intermediate city system on which they closely

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<sup>14</sup> Mainland Portugal is divided into 18 *distritos*

depend. For this level III, are considered only medium-sized towns or clusters of towns that function in a relatively autonomous way in comparison with the other two categories.

The following polynucleated systems or individual towns have been classified as medium-sized towns: Lorient-Quimperlé, Quimper-Concarneau, Bourges-Romorantin-Vierzon, St Brioux-Guingamp, Laval-Mayenne - Château-Gontier - Segré, Niort – Fontenay le Comte, Vannes, Angoulême, La Roche/Yon-Les Sables d'Olonne, Agen-Villeneuve/Lot, Chartres, Brive-Tulle, Evreux, Chateauroux-Issoudun, Dieppe-Eu, Cognac-Saintes, Cherbourg, Castres-Mazamet, Périgueux, Albi, Cholet.

In the United Kingdom, urban regions or clusters of individually smaller towns with a population generally ranging from 70,000 (Colwyn Bay) to 236,000 (Exeter) have been included in this category. There are 31 in all, illustrating the high density of this type of town in Britain and confirming the high level of urbanisation of the British Atlantic and the English regions in particular. There is quite a contrast between the urban areas observed at this scale in England and in the other parts of Great Britain. Whereas the urban core population is nearly always greater than 50,000, and sometimes quite a lot higher, in the English small towns, it is rare that the medium-sized towns in Northern Ireland, Wales or Scotland reach this threshold.

The UK experts included in the category of medium-sized towns: Ayr, Bath, Burton on Trent, Carlisle, Colwyn Bay, Crewe, Pontypool-Cwmbrann, Weymouth, Kilmarnock, Exeter, Connah's Quay-Schotton, Greenock, Hereford, Inverness, Kidderminster, Morecombe-Lancaster, Llanelli, Merthyr Tydfil, Irvine, Rhondda-Pontypridd, Abergele-Rhyl-Prestatyn, Rugby, Shrewsbury, Stafford, Taunton, Warwick-Leamington, Weston Super Mare, Worcester, Wrexham, Craigavon-Lurgan, Newry, and Ballymena.

#### **Level IV – Low density areas**

By definition, these encompass all the areas that are predominantly rural, outside the urban systems, and that are covered only by a network of local centres, in other words small towns or villages.

The study of the dynamic of these areas will be an important aspect of the work of the ASDP. However, given the strategic dimension of the project, particular attention will be paid to analysing the areas most at risk in terms of marginalisation and rural decline. An evaluation in spatial terms (surface area, localisation, etc.) will be made so as to be able to map these areas.

A distinction needs to be made between those rural areas that have real potential thanks to a high level of diversification of activities (craft or rural industries, tourism, etc.)<sup>15</sup>, and those areas that are already suffering the effects of a significant decline.

The latter may be very remote areas, or areas which play only a transitional role, and are characterised by a very low population density (less than 25/km<sup>2</sup>), low level of economic activity, and which have no agglomerations large enough for the areas to be classified as medium-sized towns. These essentially agricultural areas are linked by a network of very small villages and have been unable to escape a process of gradual decline<sup>16</sup>. As they are not directly integrated into the spheres of influence of towns, they suffer from a very marked accessibility

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<sup>15</sup> In these areas only a small minority of the active population work in the agricultural sector.

<sup>16</sup> This statement is not borne out in many sparsely settled areas of Great Britain, since agriculture is a low source of employment in these areas.

deficit. Clearly these areas, with their low agricultural productivity, can be defined as residual in relation to the preceding categories. Examples include the areas that make up the “*raia*”<sup>17</sup> of the Iberian Peninsula, certain areas in the interior of France, in the interior of Ireland, etc.

The ASDP cannot however ignore the existence of these areas, all the more so since they are not totally devoid of resources, notably environmental, which could be exploited with support from public policies. In order to better identify and analyse these areas, we will make a distinction between rural areas with a population of less than 25/km<sup>2</sup> as being particularly fragile areas calling for specific treatment in the framework of the ASDP. Rural areas with a population density that exceeds the threshold level of 25 will be counted by definition as areas that are outside the areas under urban domination but which also are not immediately at risk from rapid decline. This risk would appear to be particularly strong in quite a large number of the Atlantic regions, mainly non coastal. Here again, however, the rural areas in Britain differ from those in the rest of the Atlantic Area in that for the most part they are not affected by this process of rural decline.

It is important to underline that the small towns, with a population of some thousands, are here considered as component parts of these structural rural areas, in which they play a key role as central places as defined by Christaller<sup>18</sup>, through the delivery of basic goods and services to the whole of the population. From this point of view the atypical case of the small Welsh and English towns seems relatively exceptional to the extent that they are host to a growing share of manufacturing employment at a very time when the sectors concerned are undergoing rapid decline.

In conclusion, taking into account the adjustments made necessary by the specific geographic and statistical characteristics of each country, the four levels of spatial analysis can be defined by the criteria listed in the table below. The following map shows the location within the Atlantic Area of the different spatial entities corresponding to the levels of analysis described above. It is followed by maps locating, throughout the Atlantic Area, the various territorial entities corresponding to the levels of analysis described above. These levels of analysis result from interactive work between the national experts and the study coordination team to adapt the classification criteria to the specific features of each national and regional context. Despite this, differences in the way territories are structured within the countries of the Atlantic Area give rise to difficulties and uncertainties, and we might assume that adjustments may be necessary. In particular, the differences in urban morphology, for example between the more compact towns in Spain and those extending over a bigger area in the French peripheries owing to the effect of suburban construction, do not make it possible to maintain the same statistical definitions. There are still one or two areas of uncertainty concerning classification. However these have no significant bearing on the chosen classification, for which the main criteria by country are set out in the table below.

The distinction made between rural areas with a very low population density (less than 25/km<sup>2</sup>) and those with a higher density, highlights the importance of the syndrome from which a number of areas, notably in the interior of the Atlantic regions, suffer. These areas, whose future would

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<sup>17</sup> This is the cross-border area extending 30-50 km either side of the border between Portugal and Spain (with the exception of the northern section, near to the coast) which is characterised by very low population densities, lower in some *municípios* than 6/km<sup>2</sup>.

<sup>18</sup> According to Christaller's theory of central places (1933) all areas are structured by a hierarchical network of central places, of which the lower levels are composed of villages and small towns exercising ordinary functions of distribution of goods and services to local market areas the spatial scope of which is limited.

appear in the first analysis to be at risk because of a pronounced fall in population, account, in most of the regions, for more than half of their surface area. The notable exceptions are the English regions and most of the coastal regions in the other countries.

The rural dimension remains one of the dominant features of Portugal, as a whole. There is however a strong contrast between the interior areas with their very low population density, especially those situated close to the Spanish border (680 NUTS 5 have a population density of less than  $10/\text{km}^2$ ), and the rural areas with an average population density ( $60/\text{km}^2$ ). Together these areas represent more than 50% of the surface area of mainland Portugal and 27.8% of its population.

Extensive areas of very low population density are also to be found in the Spanish regions (Castilla y León in particular) with the exception of the coastal strip. In some regions, and above all in Castilla y León, the *municipios* with a population density of less than  $10/\text{km}^2$  are numerically predominant. The same observation can be made of France, where nearly half of the Atlantic Area is made up of rural *communes*. Certain quite extensive areas, such as Les Landes, the Pyrenees, the foothills of the Massif Central, the centre/west of Brittany, are characterised by their low population density. These areas form part of what French planners have called the 'arid diagonal'. Taken together (not distinguishing between levels of population density), these rural areas are home to 28.13% of the French Atlantic population, considerably more than all the metropolitan regions put together. This single fact confirms the importance of the rural dimension and its problems in the debate about the future of the Atlantic regions in this country.

Also to be found in the French Atlantic regions are numerous small towns that play an important role as administrative and service centres for the sparsely settled rural areas. For example we have counted 36 towns with *sous-préfectures* (sub-prefecture) that have a population of less than 10,000. If we add to this the 131 urban units with populations between 10,000 and 50,000, we can observe here again the importance of the small towns in the integration of rural areas, especially those with a population density greater than  $25/\text{km}^2$ .

The United Kingdom presents a stark contrast to the preceding cases. The rural areas are often very built-up. While 90% of the UK population lives in urban areas, many people live in small rural towns or villages but work in the large cities.

This is particularly true in Scotland and Wales. As a result, the link between agriculture and countryside is much weaker in Britain than in the other countries. For Ireland, the quantitative analysis reflected on the map shows that in terms of surface area, the rural areas dominate.

One of the features common to all the rural areas of the regions studied is the existence of an extremely fine network, especially in the slightly more densely populated rural areas (more than  $25/\text{km}^2$ ) of small towns with populations of some thousands, rarely more than 30,000. In the interior regions, where the density is lower, this type of network coverage of the area is not necessarily less marked, but the population thresholds are much lower. With the notable exception of the English regions, it is often the case in the interior regions of the five countries that local 'labour market' areas exist in which the basic services delivered to the population (health, education, business, etc.) are concentrated in the small towns, some of which have a population of less than 10,000. This is the case in Spain, where we can observe a scattering of numerous small towns whose influence extends to the scale of the *provincia*, because of the low number of intermediate cities and medium-sized towns of more than 50,000 inhabitants that characterises the interior regions. In total, we have counted 72 small towns in Spain with a

population between 5,000 and 20,000, but serving market zones with a population of over 20,000. This urban reality is especially true in Castilla y León, where 23 towns of this type have been identified. Similarly, in Portugal, we may note that there are “chains” of small inland towns which compensate partially by their offer of services for the absence of higher ranking towns. They are often located at the fringes of the areas of influence of cities.

These small towns appear to be fully integrated in these areas, and share similar trends – all too often one of decline. What is clearly evident is the wide variety of situations, ranging from fragile areas threatened with rural decline to rural areas closely linked to urban systems and which have a strong growth dynamic. This variety of situations has been highlighted many times in the numerous studies into the rural dimension<sup>19</sup>. This is why, in the next stage of our work, we shall have to identify which are the rural areas most in difficulty and situate the other areas in relation to these. We shall have to take account not only of population density as we have done until now, but also of their degree of isolation, their over-specialisation in traditional agricultural activities, the size of farms – too small in economic terms – the ageing of their population, the absence of any urban centre and the insufficiency of urban services that result, etc. Taking these criteria into account, subject to the availability of data, should provide a more qualified representation of the rural dimension of the Atlantic Area, which is made up of fragile and peripheral areas as well as areas that enjoy a much better spatial, social and economic integration.

In conclusion, the elements that emerge from this initial analysis of the four spatial levels are:

- The relative weakness of the first level in the Atlantic urban structure;
- The high density of the network of intermediate cities, principally in the United Kingdom and France (and in contrast its weakness in Ireland and in certain regions of the interior in Portugal and Spain, and even France);
- The existence of a strong fabric of medium-sized towns throughout the Atlantic Area;
- The predominance of rural areas, which is in itself one of the major characteristics of the Atlantic Area as a whole, if we do not focus exclusively on the more built-up coastal areas;
- The persistence of important ‘national’ differences, which impose a change of scale when considering the different countries.

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<sup>19</sup> A French study, carried out in the early 1990s by the SEGESA (*Société d’Etudes Géographiques, Economiques et Sociales Appliquées* – Society of Applied Geographical, Economic and Social Studies), drew up a typology of seven categories of rural *cantons* using a multi-criteria analysis. This enabled the ‘most fragile’ *cantons* to be located, a high proportion of which were to be found in the French Atlantic Area, in particular in the south-west and in the interior of Brittany.

**Table 1 - Criteria for defining the Atlantic territorial and urban systems**

<b>Country</b> <b>Level of analysis</b>	<b>Portugal</b>	<b>France</b>	<b>Spain</b>	<b>United Kingdom</b>	<b>Ireland</b>
Metropolitan regions	Population over 500,000 (centre) Urban system ~ 1 million and presence of international functions	Population over 500,000 (centre) Urban system ~ 1 million and presence of international functions	Population over 500,000 (centre) Urban system ~ 1 million and presence of international functions	Population over 500,000 (centre) Urban system ~ 1 million and presence of international functions	Population over 500,000 (centre) Urban system ~ 1 million and presence of international functions
Intermediate cities	Population over 100,000, and presence of higher functions and international functions (although less than in the previous category)	Population over 100,000 (centre), regional capital or <i>préfecture départementale</i> ; presence of higher functions and international functions (although less than in the previous category)	Population over 180,000, and presence of higher functions and international functions (although less than in the previous category)	Population over 100,000 (UK) Population over 70,000 (NI) and presence of higher functions and international functions (although less than in the previous category)	Population over 100,000, and presence of higher functions and international functions (although less than in the previous category)
Medium-sized towns	Pop. between 50,000 and 100,000 or district capital not included in the previous category; presence of functions of infra-regional importance The minimum threshold is lowered to 25,000 for towns belonging to a crossborder agglomeration or which exercise an important national function	Pop. between 70,000 and 100,000; Centre up to 30,000; presence of functions of infra-regional importance	Pop. Up to 100,000; Centre minimum pop. of 20,000, and presence of functions of infra-regional importance The minimum threshold is lower than in other countries due to the under-urbanisation of Spanish inland areas (in particular Castilla y Leon) and, in spite of this, the existence of important centres for services with a small population.	Pop. between 50,000 and 100,000 (England) 40,000-100,000 (Wales and Scotland ; 30,000-100,000 (NI) and presence of functions of infra-regional importance	Pop. between 20,000 and 30,000 (to be confirmed) and presence of functions of infra-regional importance

**Table 1 - Criteria for defining the Atlantic territorial and urban systems (cont. and end)**

Country Level of analysis	Portugal	France	Spain	United Kingdom	Ireland
Rural areas	Pop. density >25/km <sup>2</sup> , areas structured by small towns Pop. density <25/km <sup>2</sup> , areas not structured	Pop. density >25/km <sup>2</sup> , areas structured by small towns Pop. density <25/km <sup>2</sup> , areas not structured	Pop. density >25/km <sup>2</sup> , areas structured by small towns Pop. density <25/km <sup>2</sup> , areas not structured	Pop. density >25/km <sup>2</sup> , areas structured by small towns Pop. density <25/km <sup>2</sup> , areas not structured	Pop. density >25/km <sup>2</sup> , areas structured by small towns Pop. density <25/km <sup>2</sup> , areas not structured

### 3. STRATEGIC EVALUATION OF THE TERRITORIAL AND URBAN ATLANTIC SYSTEMS

This chapter presents the main results of the strategic evaluation of the Atlantic Area, which is based on a set of socio-economic, accessibility and dynamics indicators, as well as on the existence of problems that are common to all Atlantic Regions and related to the proximity of the sea.

The first part of this chapter presents an diagnostic of the Atlantic Area considered as a whole. It combines the results of the research on the indicators selected for the strategic analysis, and those of the forward study of the Atlantic regions published by the European Commission.<sup>20</sup> While the data used for this 1994 study are now out of date, many of the conclusions are still valid today.

The indicators selected for this first analysis are taken from the seven fields: demographic and economic weight, connectivity, competitiveness, knowledge and innovation, natural and cultural heritage, spatial integration, demographic and economic trends. We present here an analysis based on the mapping of the data collected.

#### 3.1 General characteristics of the Atlantic Area

##### *A large, maritime-oriented area in a peripheral situation*

The Atlantic Area is made up of 44 regions<sup>21</sup> comprising a population of more than 73 million<sup>22</sup>, i.e. a little more than one-sixth of the population of the enlarged Europe and nearly equivalent to the total population of the ten new Member States. It has a surface area of more than 500,000 km<sup>2</sup>, equivalent almost to that of France, and more than a quarter (28%) of the territory of the Union before its enlargement. Given its size, this area obviously features a wide variety of types of regions, but these share nonetheless a concern to avoid the threats arising from their common situation as peripheral in geographic, social and economic terms in relation to the ‘centre’ of the continent. The peripheral nature of the Atlantic regions would appear, at least on the surface, to have been reinforced by the recent enlargement of the Union.

<sup>20</sup> This study was based on indicators relating to the regions at NUTS 2 level, whereas the ASDP refers wherever possible to data concerning NUTS 3, and in certain cases NUTS 4 and 5.

<sup>21</sup> In two cases only part of the regions is included – Andalucía in Spain, Gloucestershire, Wilshire and North Somerset in the United Kingdom.

<sup>22</sup> 75.7 million in 1996, equivalent to 20.3% of the population of EU15.



With a length of 2,500 km, the Atlantic coastline is the longest in Europe. This is without doubt one of the major characteristics of the Atlantic Area, but the area cannot be defined by this aspect alone since over and above appearances it has a wide variety of geographical, social and economic situations, some of which are unrelated to its maritime dimension. Most of the Atlantic regions have a rugged relief, with mountainous areas close to the coast. There are some notable exceptions in the interior of Ireland and the French Atlantic regions, where the relief is softer. The influence of physical geography should not be overlooked when analysing the difficulties with which these regions are confronted, nor when analysing their potential. The permanent nature of certain physical barriers (the English Channel, the Pyrenees, Cantabrian Mountains, etc.) impacts on the functional relations and interregional linkages.

This being so, the maritime dimension of the Atlantic Area remains a strong characteristic. It is expressed through some simple data: the great majority of the population of Atlantic Regions lives on the coastal fringe defined here by the NUTS 3 areas lying on the Ocean coast<sup>23</sup>... The 91 “maritime” NUTS 3 areas alone represent 60% of the Atlantic population, i.e. over 43 million inhabitants. This total alone represents one tenth of the EU 25 population. The demographic importance of the Atlantic coastal fringe, and the resulting challenges, strongly vary however from one country to another. They are considerable in Ireland and in Portugal, since in these two countries, the proportion of the population living on the coast respectively represents 94.40 % and 65.90 % of the total population of their Atlantic Regions<sup>24</sup>, while in the three other countries, this proportion, although lower, still exceeds 50%: 57.60% in the United Kingdom, 62.14% in Spain and 54.93% in France.

The maritime dimension of the Atlantic Area is not only illustrated by the geographical spread of its population. It is also expressed by a range of activities, e.g. fishing and marine activities, seaside tourism, port activities and transport. It also implies a series of economic and environmental challenges resulting from being close the ocean, whether in terms of developing specific resources or with regard to threats related to excessive human pressure on fragile environments and landscapes. The strategic study on interregional co-operation published in 2000 by the CPMR had already shown that the fields where possibilities for co-operation were best perceived by the Regions themselves were those related to the maritime dimension of the Atlantic Area, especially through areas such as maritime transport and tackling marine pollution etc.

In correlation with this, the importance of coastal zones also represents an indirect indicator of the weakness of inland regions, which is also a source of particular problems related, in some cases, to a real risk of depopulation and socio-economic marginalisation of infra-coastal areas.

Lastly, one important implication of being close to the Ocean deserves to be underlined, which results in a specific geostrategic position. The Atlantic Regions can also be seen as intercontinental border Regions of Europe, both with the north and south American continents, and with Africa. Many Atlantic Regions have maintained economic and sociocultural relations initiated several centuries ago with overseas countries.

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<sup>23</sup> This corresponds on average to a 50 to 60 km wide coastal fringe, with variations that are nevertheless quite significant depending on the different regions and countries.

<sup>24</sup> In these two cases, the Atlantic population is no different from the national population, since all regions from these countries fall within the Atlantic Area.

***An area characterised by wide disparities in population and settlement (see map 3)***

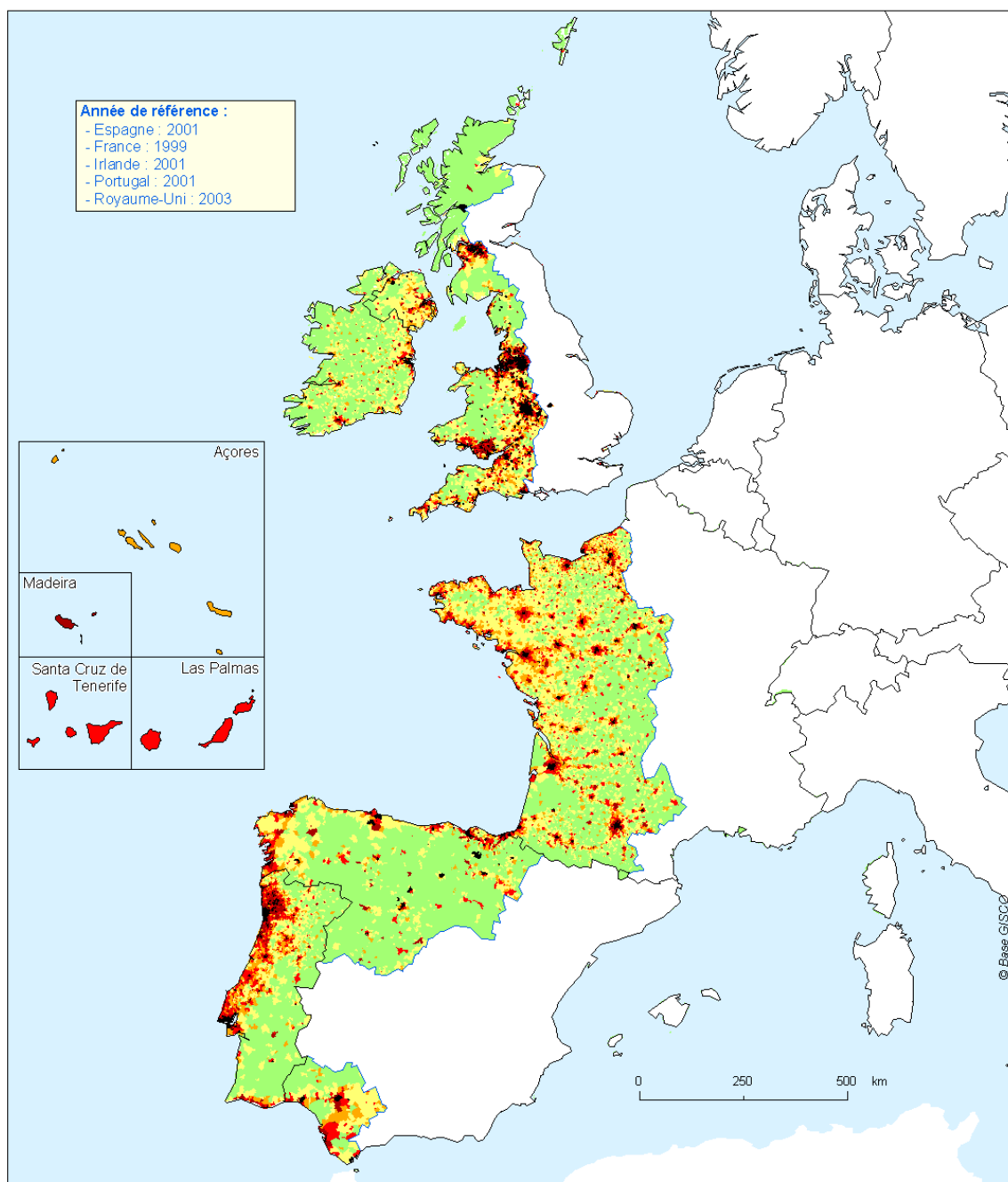
Contrasts in population and settlement both within the Atlantic Area as a whole and also within the regions themselves are particularly pronounced, as underlined in the analysis of the levels of spatial organisation. Taking the Atlantic Area in its totality, and looking at population and population density, the contrast between very densely populated areas and other areas already affected by a fall in population appears to be strongly asymmetrical. There is a small number of densely populated regions, and these are concentrated in a few small areas: the Celtic fringe of England, the south of Wales, the coast of Brittany and the river basins in France (Seine, Loire, Garonne), the Basque coast and the coastlines of Galicia and Portugal (the axis from Setúbal, south of Lisboa to Viana do Castelo, north of Porto), the Algarve and the axis Sevilla-Cadiz. In contrast to these high-density areas, which often comprise a more or less regular urban continuum, the considerable extent of areas with a very low population density can clearly be seen. These cover most of Scotland, Wales, Ireland, the interior regions of France (although in the case of France the continuity of the densely-populated areas is less apparent), the Spanish regions, and the interior of Portugal. A first strategic observation can be made, on the basis of these interregional population and settlement disparities, which is that the spatial integration of the Atlantic Area as a whole and of the regions themselves is under threat. One of the strategic challenges of the ASDP is if not to correct then at least to control the accentuation of these population disparities. In particular it is advisable to take account of the relatively low population density of the Atlantic Area (96.54 inhabitants/km<sup>2</sup> in 2002) compared to the other parts of the EU (119.80 inhabitants/km<sup>2</sup>).

The contrasts in settlement patterns are naturally reflected in land use. There has been settlement in the Atlantic Area for over several thousand years, making it an area strongly marked by human activity. The relatively weak settlement of the Atlantic Area and its urban structure is reflected in the relatively small size of the built-up areas. On the other hand, the preponderance of agricultural areas appears to be a dominant feature of land use in nearly all the regions. Where this is not the case, the land is covered by forest, as in Scotland, les Landes and the Pyrenees in France, in a significant part of the Iberian Peninsula especially the interior part of the north, above all the region of Centro in Portugal where timber is an essential resource.

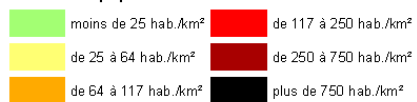
This allows us to distinguish different types of areas within the Atlantic Area, the boundaries of which do not necessarily correspond to political or administrative boundaries. These are:

- Small, densely populated, heavily built-up areas, which coincide with the urban regions in which most often the metropolitan regions or large intermediate cities are to be found. These include the urban regions of Dublin, south-west Wales, the west and south-west of England with the exception of Cornwall (Dorset, Somerset, Avon, Gloucestershire, Wiltshire), the País Vasco, the urban region of Porto and the northern coast of Portugal, Lisboa e Vale do Tejo;
- Small or medium-sized areas, with an average population density, polarised by metropolitan regions or large intermediate cities, and in which agricultural areas, forest and urban areas are interwoven. These include Cantabria and Asturias in Spain, Cornwall in the UK, the coast of Brittany, the French river valleys, etc.;

### Map 3: Population density



#### Densité de population



Source : Experts projet SDEA

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- Large areas with a low or average density of population and in which agriculture and forestry are predominant, the rural dimension being the dominant feature. These include the highlands and islands of Scotland, the interior of Ireland, Wales, Brittany, the regions of western and south-western France, Galicia, the Portuguese regions of Centro and Alentejo, and to a lesser extent the western part of Andalucía.

This classification does not replace a typology, but it does illustrate an essential aspect of the strategic analysis of the Atlantic Area, its internal diversity.

### ***High quality but fragile environment, and outstanding architectural heritage***

The large reserves of space to be found in the Atlantic Area, due to its under-settlement, have as a positive correlate the existence of a rich, although fragile, natural environment. Despite being subject at times to strong pressures and degradation, the Atlantic natural environment remains an under-valued asset. The Atlantic coastline in particular has many biologically rich wet zones. Coastal waters, *rias*, mountain ranges near the coast, and river valleys, all have considerable potential in terms of attractiveness.

However, we cannot overlook the strong pressures exercised on the most vulnerable areas – the coastal areas with extremely high population densities, in particular the estuaries, and the interior areas at risk of becoming totally abandoned and therefore not kept up.

If it were to be exploited in the same way as the prestigious architectural heritage (romanesque art, etc.) and historical sites and monuments, which are the legacy of an illustrious past, this natural environment could constitute an undeniable potential, especially in view of the constance of the climate, along the whole seaboard. The exploitation of this natural environment, respecting the essential principles of sustainable development, limiting the effects of the pressures of human activities on the most fragile sites, is one of the major planning challenges for the Atlantic Area. It could be coordinated with the policy to promote outstanding heritage sites, with which the Atlantic regions are so well endowed.

### ***Interregional disparities that do not exclude cultural similarities***

The disparities in settlement and land use do not, however, exclude the existence of cultural similarities fashioned by history. The Atlantic Ocean has played an important historic role in trade and cultural exchanges within the area. There is no doubt sometimes a tendency to over-estimate the reality of the Celtic identity that is far from being shared by all the Atlantic regions, and which, especially with increasing internationalisation of trade and cultural exchanges, is increasingly confronted with external influences. But a feature of the past that is shared by nearly all the regions, their opening to the ocean, remains an important feature of the Atlantic identity that public policies would do well to take into account.

### ***Disparities which result in different socio-economic situations***

These spatial disparities result in differing socio-economic situations which were confirmed in the third report on cohesion published by the European Commission in 2005. These include differences in employment rate, wealth measured in GDP per capita, employment productivity, R&D expenditure and demographic growth rate. These issues will be developed in more detail in the following paragraphs. It should be noted that these disparities reflect different demographic

structures: the population of Regions in south-west France, Spain (except the Basque Country) and Portugal (except Norte Region) is much older (with senior citizens dependence rates<sup>25</sup> exceeding 30 %).

### **3.2 Human resources and their dynamics**

#### ***Regional population trends (see map 4)***

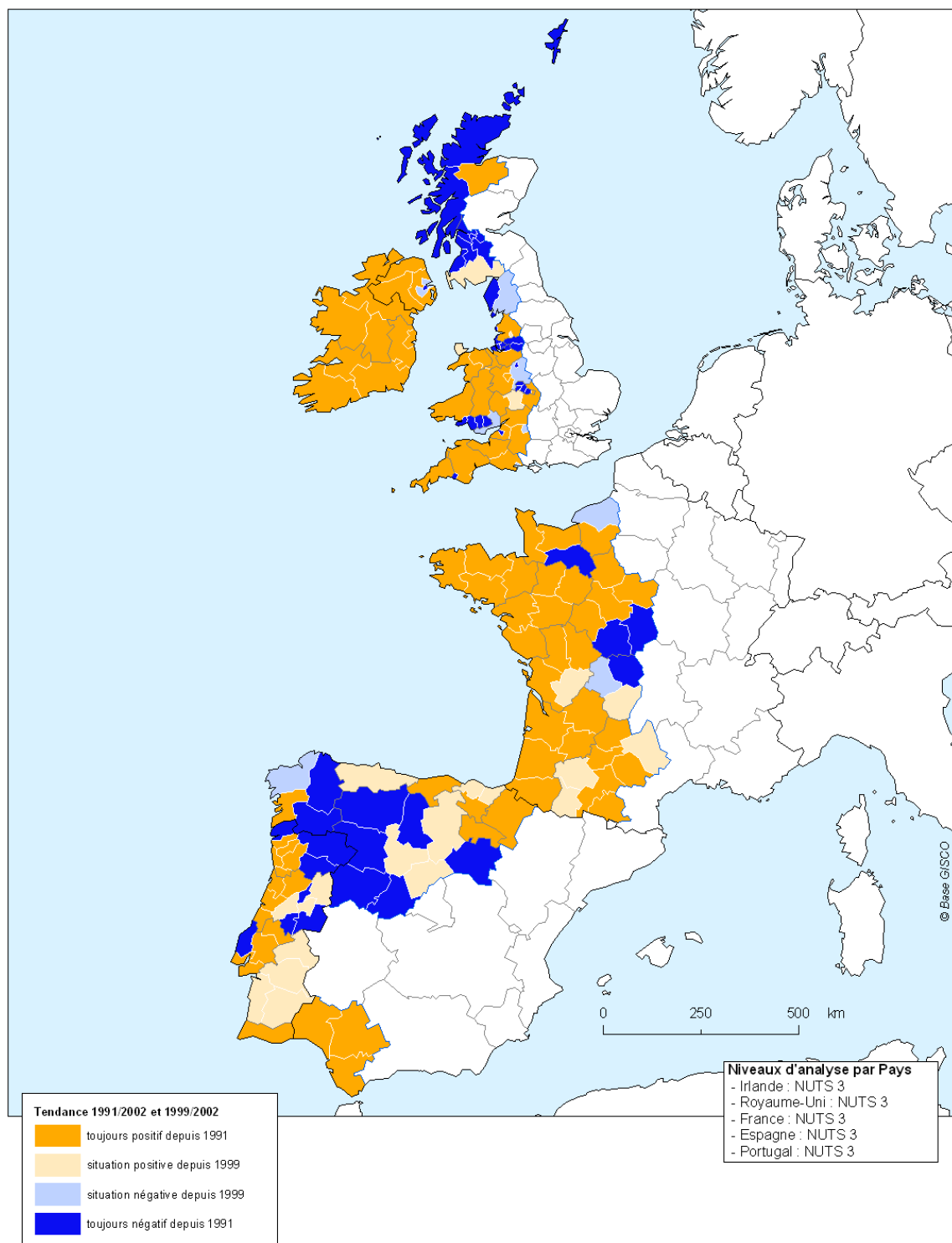
As underlined in previously, the Atlantic Area remains under-settled in comparison to the rest of Europe, and is above all marked by strong disparities in population and settlement between the different regions. These contrasts are being accentuated, and the Atlantic regions' endowment in terms of human resources appears to be increasingly imbalanced.

Indeed, the average population change at NUTS 3 level between 1991 and 1999 reveals a trend in this direction. Population growth is strong in the already most densely-populated areas: the south-west of England, the Seine and Loire river valleys and the French coast, most of the coast of Portugal and the Atlantic coast of Andalucía. The only major exceptions are the Welsh and Irish regions with a low population density, which are experiencing positive population growth. In contrast, the sparsely populated interior regions of France are, for the most part, experiencing negative growth. The situation appears even more critical in the Iberian Peninsula, where the interior regions, both Spanish and Portuguese, are in rapid decline with a fall in population over ten years as high as 20%. This gives rise moreover to a paradoxical statistical effect which, as we shall see later on, means an arithmetical increase in per capita GDP for these regions since the fall in active population is partially compensated by productivity gains. Overall, however, the main observation that can be made is that of a process of decline in human activity in the isolated rural areas, which have the most difficult living conditions. These trends are linked not so much to natural population movements, as to definitive out-migration. Many of the Atlantic regions are regions from which the youth population and under-qualified work force leave; some of them (the coastal regions) are regions that attract the older sections of the population. Some recent positive changes may be noted however in some sparsely populated French regions and especially in Portugal and some Spanish Regions, especially Asturias and the province of Guipuzcoa in the Basque Country.

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<sup>25</sup> Ratio between the population of over 65's and 15-64 year olds, 2003 figures, in the third progress report on cohesion, *Towards a new partnership for growth, jobs and cohesion*, 17 May 2005.

**Map 4 : Average annual population growth between 1991 and 2002**



Source : EUROSTAT

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### ***A fairly low rate of activity in most of the regions (see map 5)***

The demographic trends described above and the relative deficit in population of a working age explain, at least in part, an activity rate that is lower in most of the Atlantic regions than in Europe as a whole, and in the international metropolitan areas (London, Paris, Madrid). The map showing the activity rate of the population in 2001 shows strong interregional disparities. Whereas the European average is situated at 56.5%, only the Irish regions, most of British Regions, Pays de Loire, Haute Normandie and Midi-Pyrénées regions in France, the three Portuguese regions north of the Tagus valley (Norte, Centro, Lisboa e Vale do Tejo) and the Algarve have an activity rate above this average. The French regions Centre, Poitou-Charentes and Bretagne, País Vasco and Navarra in Spain, and Alentejo in Portugal, have rates that are lower than but close to the community average. On the other hand most of Spain and the Regions of Aquitaine, Limousin and Basse-Normandie in France reach much lower levels. If the activity rate of these Regions is low, it should however be noted that positive changes have been experienced in these areas (except some French Regions) since 1999 (e.g. a variation of +5.3% between 1999 and 2003 for Cantabria!).

### ***Significant contrasts in levels of education***

Level of education is one of the key factors determining the regions' human capital and subsequently their competitiveness. The level of education (low, average, high) is defined in terms of the level of studies completed. A high level corresponds to a person who has completed higher education (graduate). A low level corresponds to a person who has not gone beyond the limit of compulsory education.

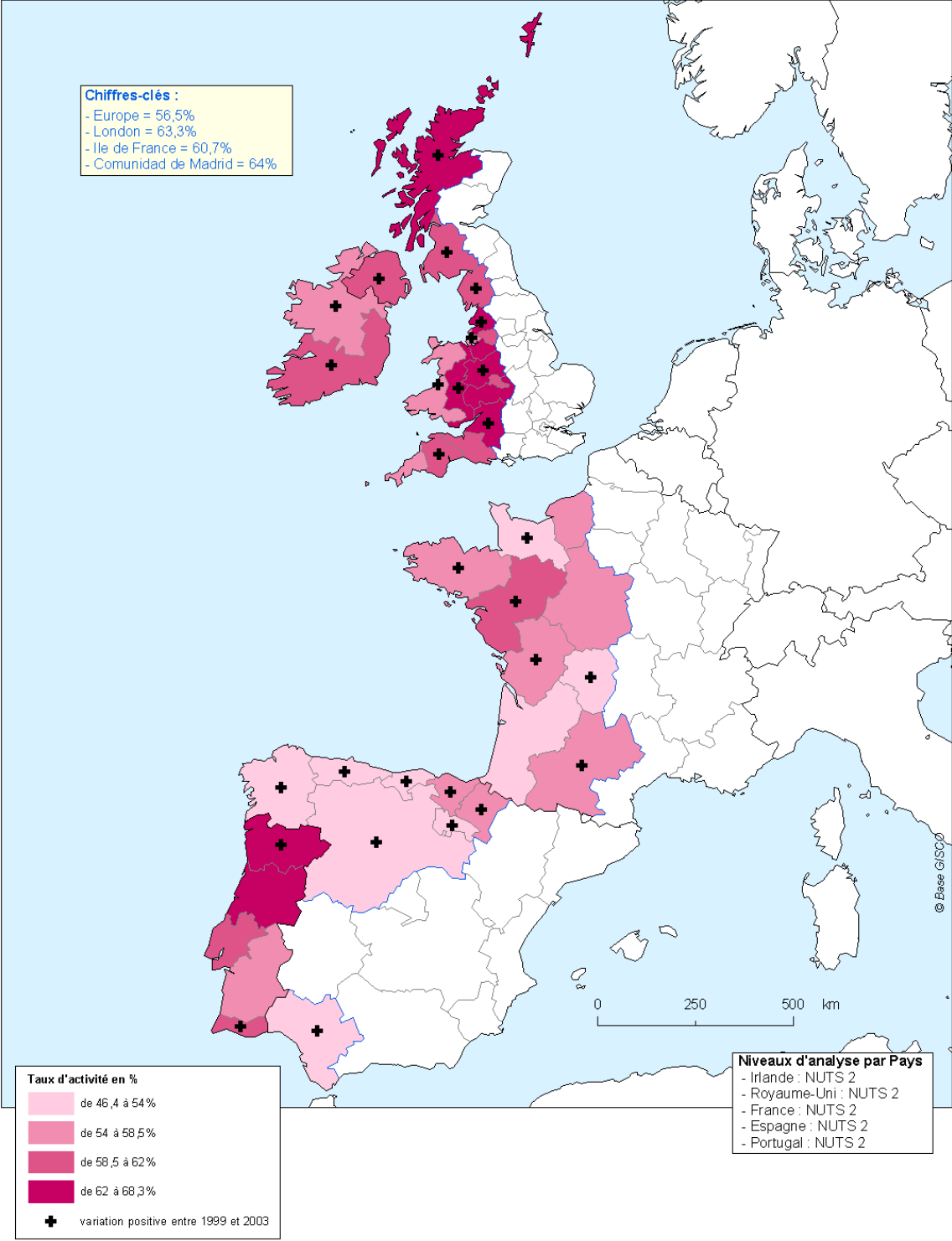
The percentage of those aged between 25 and 64 with a level of either high or low education, illustrates once again strong regional disparities, although this does not fully coincide in terms of areas with the disparities highlighted by the previous indicators.

The percentage of graduates is higher than the community average (21.8%) in all the UK regions, in Northern Ireland, in Brittany and in Midi-Pyrénées, and in the Spanish regions apart from Galicia and Andalucía. However no Atlantic region comes close to the level of the major capital regions (Greater London and Ile de France).

The regions with the highest percentages of highly-educated people are also, as might be expected, those with the lowest rates of poorly-educated people. But this apparent coherence is only really true of Portugal, where the percentage of people with a low level of education is more than double the European average (35.4%) and in the United Kingdom where the proportion of people with a low level of education is systematically lower than the European average. In the regions of the three other countries the situation is more complex. Quite a number of regions have high rates of both highly-educated and poorly-educated people. This is the case for the Spanish regions and for southern Ireland, which would suggest the existence in these regions of a strong dualism of economic activity, with sectors that require both a highly-skilled and a low-skilled work force.

However we can further qualify this analysis by taking age into consideration. Levels of education among the under-35s are less differentiated, and closer to the European average, in particular in the Portuguese regions, because of the recent improved access to higher education.

Map 5: Activity rate of the population in 2003



Source : EUROSTAT

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***In many regions human resources are under-employed<sup>26</sup>(see map 6)***

While the NUTS 2 regions in Britain, Ireland and Portugal have, overall, a rate of unemployment lower than the European average (7.8% for EU15 in 2002), this is not the case of the French and Spanish regions. In Spain unemployment often runs into double figures and even come close to 20% of the active population (Andalucía). All in all, the European regions can be put into three categories:

- Regions with low unemployment, including the regions of the Republic of Ireland, England, Navarra, and the Portuguese regions Norte, Centro and the Algarve;
- Regions with a rate of unemployment close to the European average: Northern Ireland, Scotland, Wales, Brittany, Pays de Loire, Limousin, La Rioja, Lisboa and Alentejo;
- Regions with an unemployment rate higher than the European average: the French and Spanish regions other than those already mentioned.

The map showing unemployment rate gives greater depth to this comment by differentiating the situation in north of Spain and in Portugal, where there are more contrasted variations. It should be noted that there is not necessarily a correlation between the level of unemployment and the filling of job vacancies, in view of the structural problems inherent in the skills mismatch between employment supply and demand. For example, Midi-Pyrénées has a high level of unemployment, but the number of unfilled job vacancies in the region is among the highest in France, since the jobs offered often call for a higher level of qualifications than is possessed by job seekers.

An analysis of the specific variation in unemployment rate at NUTS 2 level highlights some major positive changes. Generally speaking, there has been a notable fall in unemployment over the last 10 years in the Atlantic Area as a whole. The trends over the last few years show how the Spanish regions have caught up significantly and also reveal an alarming increase in unemployment in Portugal and, to a lesser extent (initial rates being lower) in certain English regions. Long-term unemployment nonetheless remains a real scourge, especially in Spain and France.

These quantitative data mask certain aspects, however, such as the precarity or under-qualification of employment. In the English regions, for example, the proportion of part-time employment remains very high.

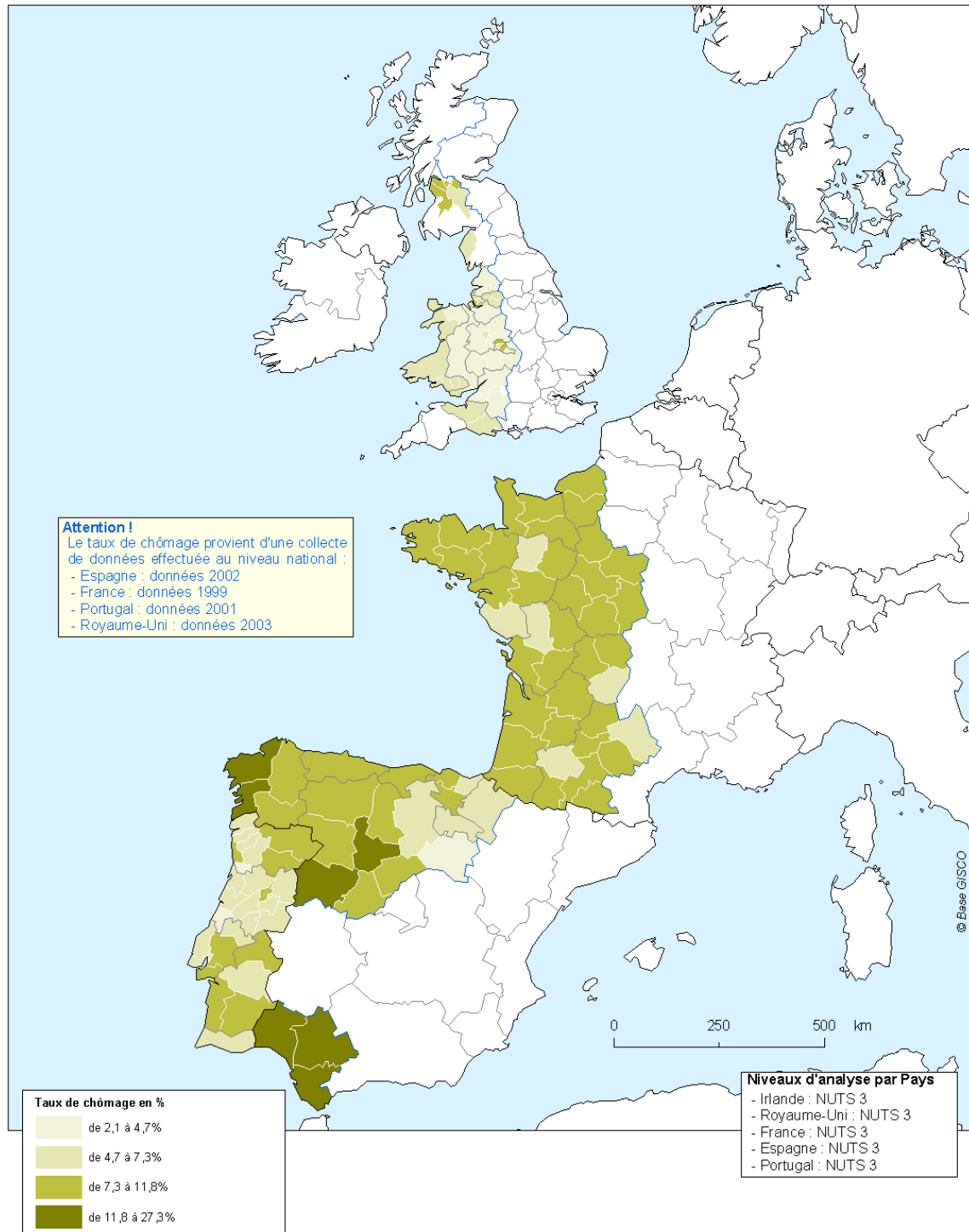
***Higher education provision: relatively favourable for promoting polycentrism***

According to the ESPON 111 report, the division of the university-level higher education market between cities is becoming more polycentric in most European countries. This is notably the case in France and the United Kingdom, in spite of the considerable dominance of Paris and London. The Atlantic regions consequently have a significant number of university centres of a European scale ("knowledge nodes of European significance", catering for 50,000 to 500,000 students), namely Birmingham, Manchester and Liverpool in the United Kingdom, Rennes, Nantes, Bordeaux and Toulouse in France, Bilbao and Sevilla in Spain, and Porto and Lisboa in Portugal.

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<sup>26</sup> The reader will find much more detailed data on this question in the report by A. Boissinot and C. Violle, *Analyse de la compétitivité des régions de l'arc atlantique en matière de ressources humaines*, CPMR-FSU, May-August 2002, 95 pp + annexes

**Map 6 : Unemployment rate (NUTS 3)**



Source : Espagne (INE Instituto Nacional de Estadística) /  
France (INSEE, RP 1999) / Portugal (INE, Recenseamento Geral da População) /  
Royaume-Uni (ONS Crown Copyright Reserved from Nomis on 19 May 2004)

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The other metropolises (Dublin, Cardiff-Swansea, Ciudad Astur and Sevilla), almost all of the intermediate centres and some medium-sized cities are ranked among the major centres of higher education (large higher education institutes with 10,000 and 50,000 students). This relatively even distribution of knowledge nodes is a major asset as far as the participation of the Atlantic Area in the construction of a polycentric Europe is concerned.

### ***Regions and cities which present relatively little attraction for European students***

According to the data recorded in the ESPON 111 report, although the big Atlantic centres of higher education are important and evenly divided across the territory as a whole, they attract relatively few European students spending terms of study abroad via Erasmus/Socrates exchanges. Of the 20 cities for which the balance between incoming students and outgoing students is the highest in Europe, only 5 cities are included in the list, far behind Paris, Madrid, Barcelona and London, which are ranked in the first four places. Dublin comes 7th, Lisboa 13th, Glasgow 15th, Toulouse 16th and Sevilla 18th.

### **3.3 The productive structures of the Atlantic regions<sup>27</sup>**

#### ***Disparities which are reflected in regional employment levels (see maps 7 and 8)***

The regional imbalances highlighted in the previous paragraphs are most logically accompanied by a sharply uneven spatial distribution of employment. The map regarding the spread of employment, which gives a detailed overview of the regional distribution of jobs, shows that there is a high concentration of jobs around Glasgow and Dublin, in the West Midlands and North-West regions in England, in the Basque regions and along the Portuguese coast. It also shows that there are other areas which have a high density of jobs, although they are more spread out (Haute-Normandie in France, and in the regions polarised by French metropolitan regions). The other Atlantic regions, especially in the Iberian Peninsula, have a much lower level of employment.

The map presenting the population activity rate in 2003 is useful for evaluating the extent of the phenomenon. A third of Atlantic jobs are concentrated in limited areas, namely the urban areas of Belfast, Dublin, West Midlands, Bristol, Bilbao, Porto and Lisboa. If we add the south of Scotland to the list, as well as the South West in England, Haute Normandie, Basse Normandie, Brittany, the Loire Valley corridor (the Nantes-Tours-Orléans axis), the Toulouse and Bordeaux metropolitan areas and almost all island areas, almost two-thirds of jobs seem to be concentrated in a limited, essentially coastal part of the Atlantic Area.

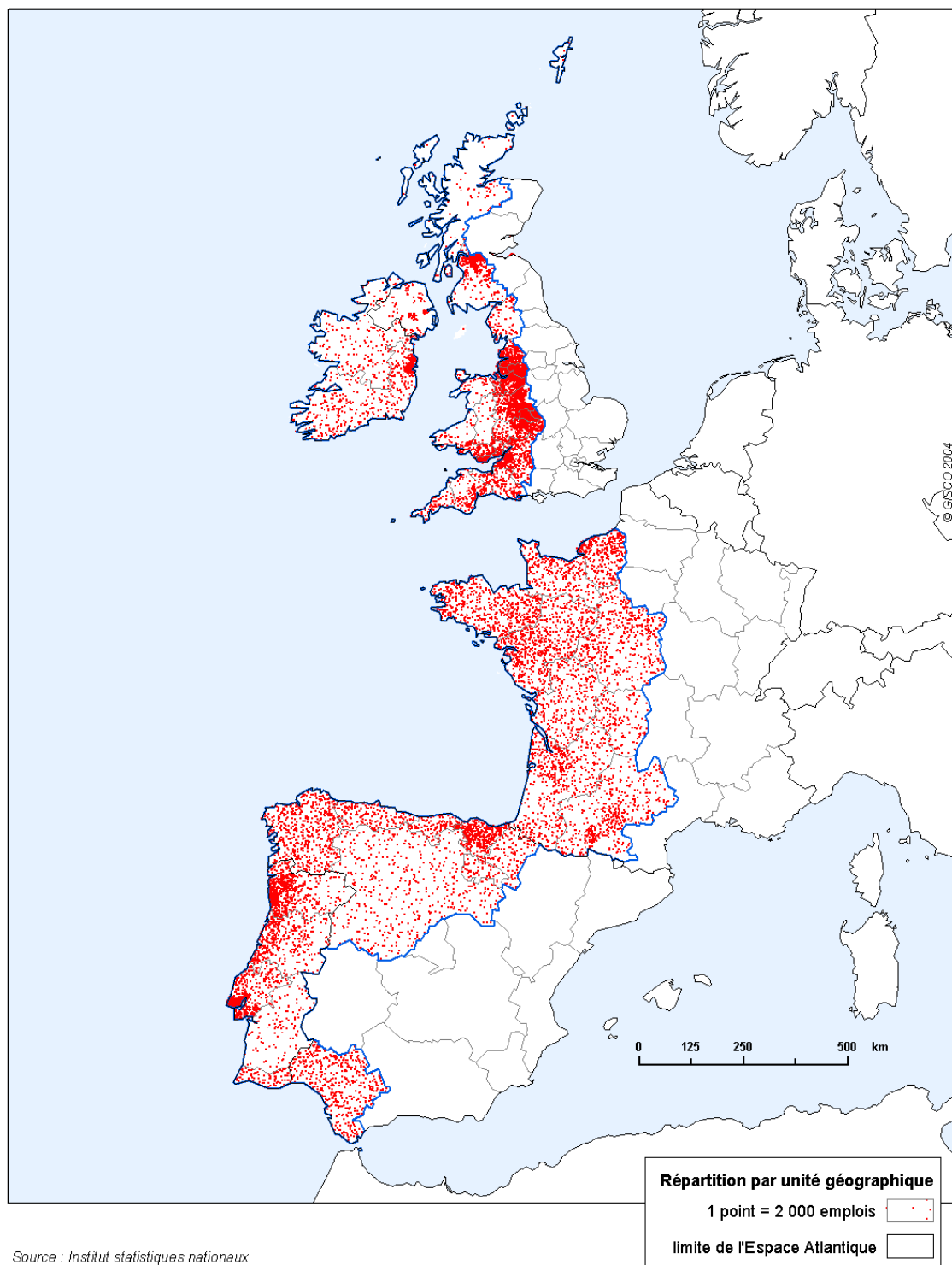
#### ***Contrasted sectoral focus from one region to another (see map 9)***

This map, which presents a typology at NUTS 2 level of employment according to dominant sectors, provides us with a clear picture of the productive structure of the Atlantic regions. This has been calculated on the basis of European (EU15) averages of the rates of employment in the three major sectors, agriculture, industry and services. The data thus mapped reveal six categories of regions:

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<sup>27</sup> In this paragraph, we will be examining the main sectoral guidelines for the productive systems of the Atlantic regions, with the exception of fisheries. This sector is examined in section 3.6 on the maritime dimension.

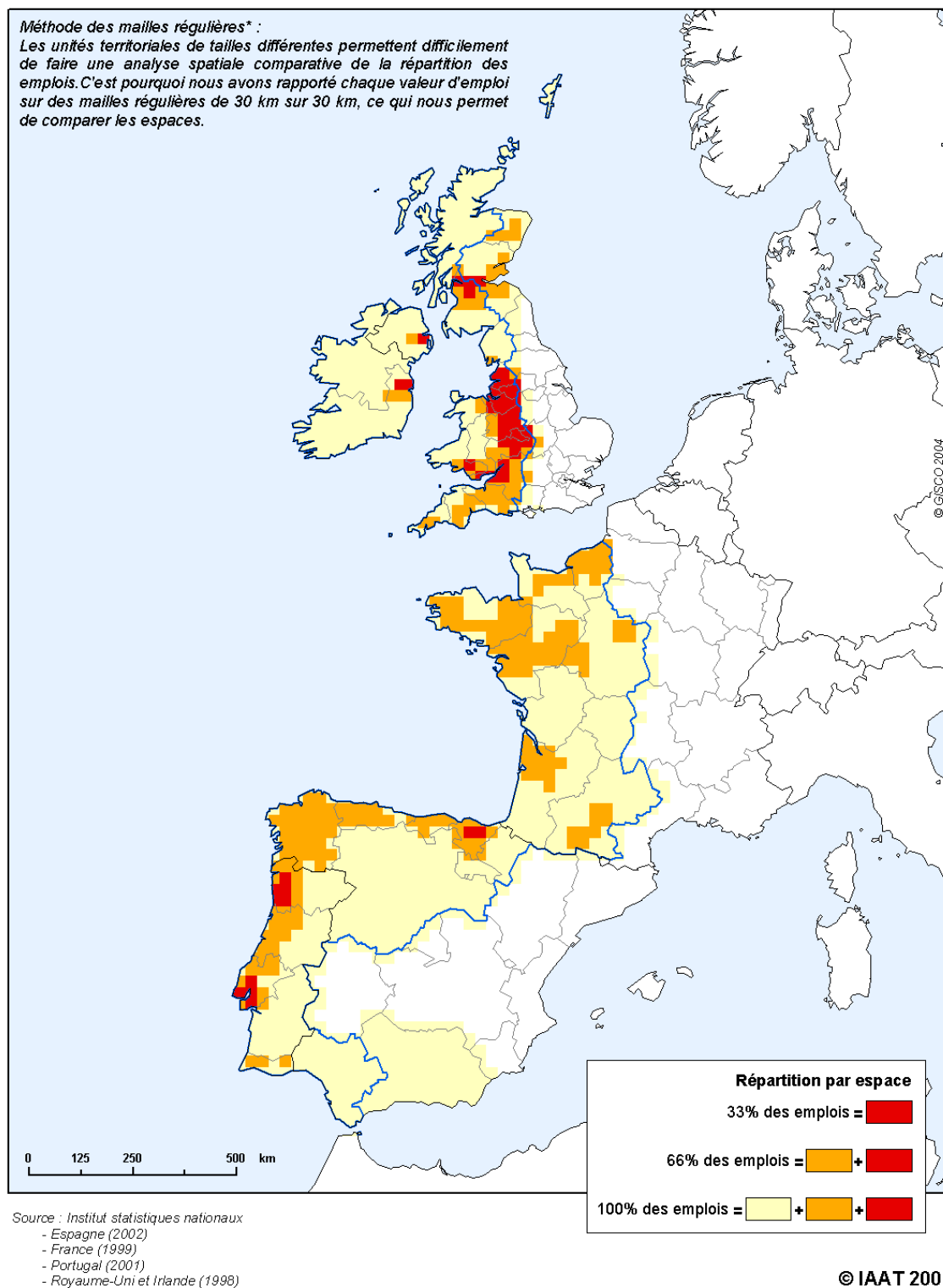
**Map 7 : Spread of employment**



Source : Institut statistiques nationaux  
 - Espagne (2002)  
 - France (1999)  
 - Portugal (2001)  
 - Royaume-Uni et Irlande (1998)

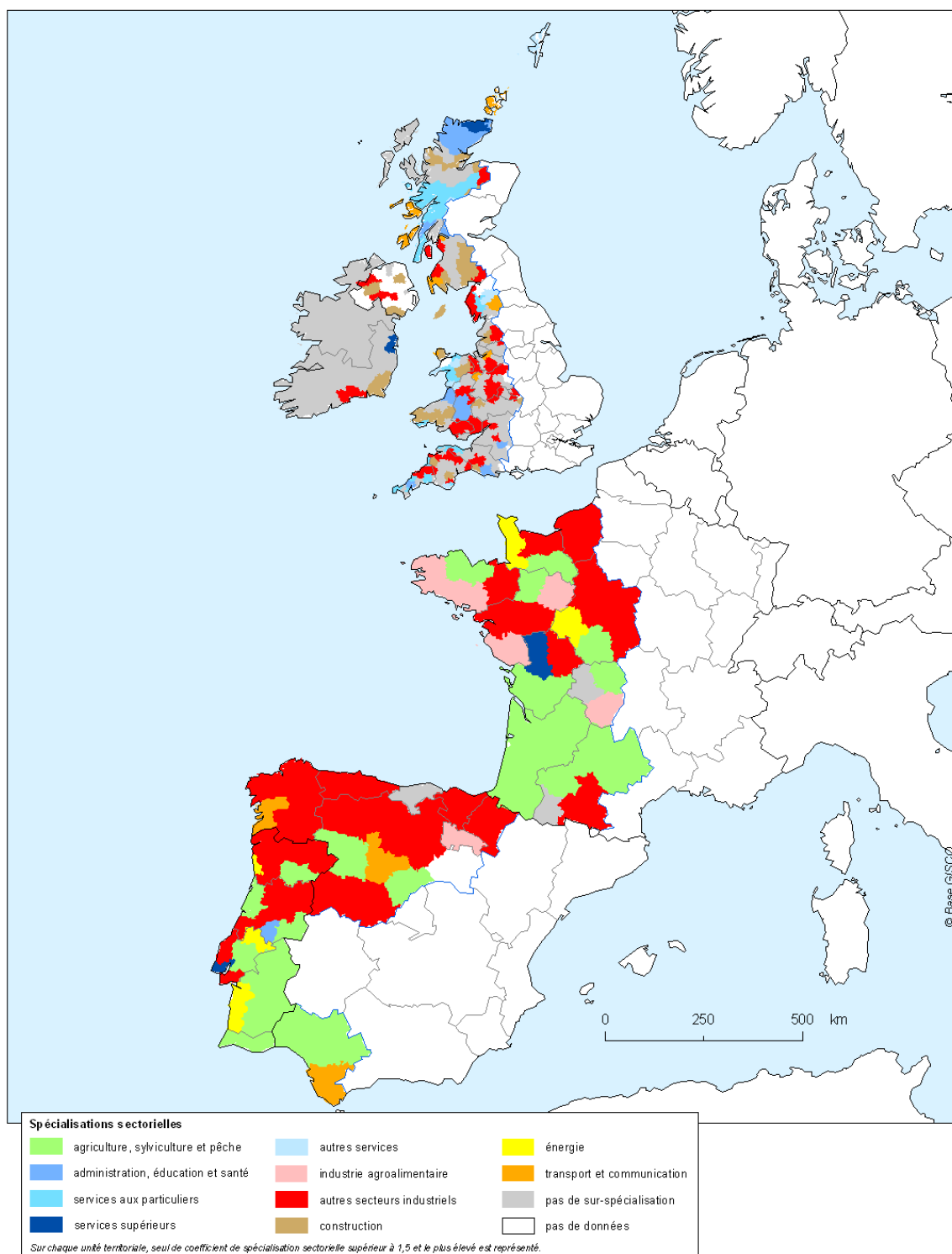
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## Map 8 : Employment concentration



## Map 9 : Location of dominant sectoral specialisations

**ESPACE ATLANTIQUE**  
Spécialisation sectorielle dominante



Source : Institut statistiques nationaux

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- Predominantly agricultural regions. These are regions in which employment in agriculture is over-represented in relation to the European average, and employment in the other sectors is on the contrary under-represented. They are the regions of Northern Ireland; the south of the Republic of Ireland; Brittany, Basse-Normandie, and Poitou-Charentes in France; Alentejo in Portugal; and Andalucía in Spain.
- Agricultural and industrial regions. These are regions in which employment in these two sectors is higher than the European average. Among them are the regions of the north-west of the Republic of Ireland; Liverpool in the United Kingdom; Pays de Loire and Centre in France; all the regions of north-west Spain apart from the País Vasco; Norte and Centro in Portugal. These are the largest regions in terms of surface area. Together with the preceding category they cover more than three quarters of the Atlantic Area.
- Predominantly industrial regions. Very few in the Atlantic Area, this category includes only the regions of Birmingham and Liverpool-Manchester in the United Kingdom, Haute-Normandie in France, and the País Vasco in Spain.
- Industrial and tertiary regions. The English region of Cumbria is the only one in this category.
- Predominantly service-sector regions. This category includes only British regions, i.e. those of the south-west of England, Wales and southern Scotland.
- Regions highly specialised in both agriculture and the tertiary sector. These include the regions of northern Scotland; the two regions of south-west France (Midi-Pyrénées and Aquitaine); Lisboa e Vale do Tejo and the Algarve in Portugal. None of the Spanish regions fall into this category.

This typology confirms the wide variety in productive structures across the Atlantic Area, but by definition it does not take regional disparities into account. The data observed at NUTS 3 level can show contrasts in specialisation by sector within the regions themselves.

### ***Agriculture: still very present but unevenly distributed***

The economy of the rural Atlantic regions is still largely dependent on agriculture, which in most regions takes the form of mixed farming. If we include the processing of agricultural products in the regions themselves by the agri-food industry, agriculture appears as a strategic sector for the development of the Atlantic Area. The location quotient for agriculture in the regions of the Atlantic Area as a whole is nearly everywhere higher than one, and in some cases reaches very high values, for example in the Centro region of Portugal (6.05)<sup>28</sup>. The only exceptions, where we could speak of a slight ‘under-specialisation’ (at NUTS 2 level) are the País Vasco, Haute-Normandie, the English regions and Wales. Overall, more than 8.6% of the active population of the Atlantic regions is employed in agriculture, twice the EU15 average of 4.28%.

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<sup>28</sup> See the analyses of A. Boissinot and C. Violle: *Analyse de la compétitivité des régions de l’arc atlantique* op. cit. pp. 42. The location quotient is defined as the ratio between employment in the primary sector of a region/total employment in the region and employment in the primary sector in EU15/total employment in EU15. Any value higher than one reflects over-specialisation in the sector concerned for which the indicator has been calculated.

The employment analyses in the primary sector at NUTS 2 level enables us to better situate the challenge represented by this sector in the vast majority of the NUTS 2 regions. The specialisation in agriculture remains a strong feature distinguishing the Atlantic Area from the rest of Europe. The analyse of the weight of the primary sector at NUTS 3 level allows us to observe some significant disparities at intra-regional level, but this does not invalidate the overall conclusion.

With regard to agrarian structures, there is a significant contrast between the north and the south of the Atlantic Area. Farms in the British and French regions are of average size and everywhere larger than 20 hectares, whereas in the Atlantic part of the Iberian Peninsula smallholdings of less than 3 hectares are predominant. One notable exception is however the region of Alentejo, where latifundia (large estates) of up to several thousand hectares are still to be found.

Whereas mixed farming seems to be typical of most regions, there are significant differences according to climate and soil conditions. Agriculture in the Cantabrian and Asturian mountains, the interior of Portugal, the Highlands or in the French-Spanish border region faces fundamentally different problems from that in the low altitude regions.

The different types of agriculture – it is necessary to use the plural here – are subject to numerous factors which make them vulnerable, not least of which are the ageing of the population and rural decline mentioned earlier.

This fragility, perceptible in many Atlantic regions to varying degrees, if combined with other data such as population trends or accessibility which will be dealt with in a later section, enables us to sketch out a differentiating typology of regions, as follows.

- ‘Forgotten’ rural areas, at high risk of marginalisation, such as the rural areas of the Highlands, the interior regions of Portugal, Wales, Galicia, the hinterlands of Asturias and Cantabria, or the most abandoned areas of Limousin or Poitou-Charentes; here policies designed to provide assistance can only be rural policies and not only agricultural policies;
- Rural areas under threat, since still very traditional, although retaining a high production capacity thanks to a volume of more productive jobs that remains high, such as most of the rural areas of the French regions;
- Rural areas that are spatially, economically and socially better integrated, such as those adjoining the peri-urban areas or situated along the French and above all British coast. The risk here is more that of being absorbed by badly managed urban planning or uncontrolled urban sprawl.

### ***Industry : very uneven situations within the Atlantic Area***

Industrial activity in the Atlantic Area is diversified. The range of activities is very broad, and comprises capital-intensive industries using high technology (the aeronautic industry in Midi-Pyrénées for example, where the Airbus are assembled) as well as labour-intensive, low-technology manufacturing such as the textile industry in the north of Portugal. Many of the Atlantic regions still have industrialised urban areas inherited from their history of industrialisation, such as the English regions of the Atlantic Area, south Wales and Scotland;



Basse Normandie and Pays de Loire in France; the País Vasco and Cantabrian coast in Spain; and north-west Portugal.

These regions have already, for many years, had to tackle industrial conversion with all its difficulties, and their cities have had to be creative in their urban planning, re-creating a new image in order to attract national and well as, and more importantly, transnational, investment. This is the incentive behind such emblematic initiatives as Bilbao's 'Ria 2000' operation which included the building of the Guggenheim museum; the redevelopment of the former port of Bristol with the transformation of the Canon's March site into a science complex; the redevelopment in Nantes of the former naval shipyard on the Ile Beaulieu; the conversion of the industrial and port area of Lisboa with the creation of the 'Parc des Nations', site of the Universal Exposition in 1998; and Glasgow's candidature for the designation as cultural capital. These are all attempts to overcome the obsolescence of heavy industrial structures and reposition the city in a now globalised, tertiary-sector dominated economy, by transforming the old industrial capitals and their regions into metropolitan areas with international influence.

These ongoing changes also affect business demography, with an increase in the number of small and medium-sized firms. SME growth is more rapid in certain regions, especially the coastal regions (south and east coast of Ireland, Brittany and Pays de Loire in France, the Lisboa-Porto section of the Portuguese coast, etc.).

In spite of these trends and developments, however, it is still possible to observe a number of dominant sectors in the productive structure of the Atlantic regions.

- Minerals and metals processing remains quite strongly present in certain regions, despite major restructuring in recent years and accelerated decline (Wales, South-West, País Vasco, etc.).
- Oil refinery and the petro-chemical industry, located essentially close to deep water ports particularly numerous in the Atlantic regions, still have significant influence in many British regions, despite the many recent closures (Northern Ireland, Scotland, South-West, etc.), as well as in France (Pays de Loire, Aquitaine), Spain (País Vasco, Asturias and to a lesser extent Galicia) and Portugal (Lisboa and the coastal part of Alentejo). These activities, which are highly space-consuming, pose a certain number of environmental problems and enter into conflict with other activities (tourism, agriculture, etc.).
- The food industry, spread widely over the whole of the Atlantic Area, is an important specialism of nearly all the regions. The sector is highly varied, both from the point of view of the type of firms (ranging from subsidiaries of major global groups to small family businesses) and their size, as well as from that of the wide range of products (dairy products, canned fish and vegetables, production of wine and spirits, etc.). In all the regions, the food industries represent more than 10% of industrial employment.
- The textile and clothing industries. Considerably weakened in the French regions, this sector remains important in many UK regions (East Midlands, Scotland, Northern Ireland), in Dublin and Cork in the Republic of Ireland, and in the regions of the Iberian Peninsula in particular Norte and Centro in Portugal, where textile and clothing still appears to be the most important industrial sector in terms of both employment and exports.

- Timber and furniture are still important in the west of France and above all in the northern half of Portugal.
- The construction of means of transport. Here again, production is highly diversified in a sector that includes ship-building, particularly strong in the South-West, Lower Loire valley with the Saint-Nazaire shipyards, the world's leading constructors of liners, in Asturias and Galicia, and the Lisboa region. The automotive industry also has a strong presence in the Atlantic Area, notably in the west of France (Basse-Normandie, Brittany, Poitou-Charentes, Aquitaine); Spain (Castilla y León, Cantabria, Asturias and Galicia); and in all the Portuguese regions.

Overall, the specialisation of the Atlantic Area remains heavily marked by labour-intensive industries with a limited technological component. However, certain regions have launched important diversification initiatives calling on high-tech firms. Ireland, Scotland, Brittany, South-West, and Norte have partially succeeded in refocusing their industrial systems on high-tech sectors such as electronics, information technology, etc. However links between these industries and research structures in the regions are weak, and more often than not firms are part of international networks which themselves have only a limited presence in the Atlantic Area.

The share of employment in the secondary sector, at NUTS 2 and NUTS 3 levels, reflect the widely diversity of the Atlantic Area in terms of location of industry. The area encompass at one and the same time regions that are 'under-industrialised' and on the other hand poles of over-industrialisation. At NUTS 2 level the most industrial regions the north-west of Ireland, Birmingham and Manchester-Liverpool, in France the Loire regions and Haute-Normandie, and nearly all the Spanish and Portuguese regions apart from southern Portugal and Andalucía.

The data collected at NUTS 3 level gives a slightly more complex picture of the spatial distribution of employment in the secondary sector. The first category of NUTS 3 regions, in which employment in industry is less than one-fifth of total employment, is made up essentially of the British and French regions. In the second category, of heavily industrialised regions (in terms of share of employment) are to be found some English regions, a quite large NUTS 3 area in north-west France, and a majority of the regions of the Iberian Peninsula. In this latter case the correlate of 'industrial over-specialisation' lies as we shall see in the weakness of the service sector. Two main poles clearly stand out: on the one hand the Basque *provincias* which in spite of difficult industrial conversion retain a strong industrial vocation, and the NUTS 3 area of north-west Portugal which with more than half of employment in industry, essentially manufacturing for export, make the Norte region the 'most industrial region in Europe'. This region is principally specialised in the textile, clothing, wood, and leather industries, sectors in which it is among the leading regions in Europe.

The share of high-technology employment in manufacturing industry illustrates the spatial diversity of employment, since it illustrates the clear division between regions in which high-tech employment is high and in fact higher than the European (EU15) average, and the regions in which this type of employment is rarer. The UK regions have rates of high-tech employment considerably higher than the European average (7.8%), or at least close to this rate (Scotland and Ireland). The same can be said for the five northern French regions (Basse-Normandie, Haute-Normandie, Pays de la Loire, Brittany and Centre). On the other hand, the regions of south-west France and the Iberian Peninsula are well below the EU average, with the exception of Navarra, the Basque *provincias* and Cantabria. All in all, while the proportion of high-tech employment is

quite close to the European average – 7.3% for the Atlantic Area, compared with 7.8% for EU15 – there are wide disparities between the northern half of the Atlantic Area and the south (with the exception of the northern Spanish *provincias*). The Portuguese region of Norte is a special case, which, as we have said is the most industrialised region in Europe; it falls in the category of regions having the lowest proportion of high-tech employment.

This distinction between the north and the south is further confirmed by the weight of industrial employment of each region in the total for the Atlantic Area.

***The services industry: increasing importance of the sector, but still below the EU average***

The productive structure of the Atlantic Area as a whole is characterised by a rate of employment in the tertiary sector slightly lower than the European average: 64% as compared with 66.5% for EU15. However, in many regions the service sector has quite a high level of employment, close to or even higher than the EU average. It is only in the northern regions of the Republic of Ireland, in Spain, and Norte and Centro in Portugal that the rate is much lower. However, in terms of the supply of services, the Atlantic regions remain heavily dependent on the national capitals, where employment in the service sector as a percentage of total employment is much higher: 85.5% for London, 80.2% for Paris, and 73.1% for Madrid. The NUTS 3 data reveals some ‘counterweights’ or service centres in the Atlantic Area that reach proportions close to those of the national capitals. These are Glasgow-Edinburgh, and Manchester-Liverpool which, in spite of their industrial heritage are emerging as important services centres; Bordeaux and Toulouse; and Lisboa, which puts to good advantage its status as a capital city.

While employment in the tertiary sector reaches high levels in most regions, the situation is more contrasted if we focus exclusively on knowledge-intensive services. The Atlantic Area then falls 3 points behind the European average, and in certain regions (Galicia, Portugal with the exception of Lisboa, Cantabria, La Rioja) the gap is even greater, as high as 20 points. Symmetrically, we can observe that the regions in which this same category of employment is near to or higher than the European average are concentrated in the northern half of the Atlantic Area, especially in the south of Ireland and England, Midi-Pyrénées, and Aquitaine. The development of this type of services is clearly a major challenge for the Atlantic Area as a whole, if a more polycentric development is to be achieved, and the area’s dependency on the capital cities reduced.

The supply of advanced services remains concentrated, moreover, in certain of the large urban agglomerations such as Dublin, Glasgow, Nantes, Bordeaux, Toulouse, Bilbao, Lisboa, Sevilla, creating a hierarchy in the metropolitan regions (level I of the spatial analysis) to the advantage of those cities with the highest levels of facilities and most qualified work force. It is no surprise that the regions in which these metropolitan regions are located are those in which the share of employment in knowledge-intensive services is by far the highest. On the other hand, the regions in which the other metropolitan regions are located (Cardiff-Swansea-Newport, Ciudad Astur, Porto) are much further down the hierarchy with regard to this indicator.

We also know that the supply of services to businesses remains deficient in the Atlantic Area as a whole. It can be considered satisfactory for traditional services (legal, accounting, taxation services, etc.), but is much less satisfactory for financial and banking services or those related to international trade. The low density of location of head offices of firms is one reflection of this.

In relation to the above, it is possible to pay particular attention to employment in research and development, using NUTS 2 level data. In relation to total employment, employment in R & D in nearly all the Atlantic regions, with the exception of Midi-Pyrénées, the País Vasco, Navarra and Castilla y Leon, is much lower than the European average (1.36%). The gap is greatest in Wales, Northern Ireland and Portugal. The regions with the highest percentages of employment in R & D are in general those in which the level of expenditure in this field, so crucial for competitiveness, is also the highest.

Concerning the R & D effort, measured in terms of expenditure on R & D as a percentage of regional GDP, there is an even sharper contrast between the regions of the Iberian Peninsula, with the notable exception of the País Vasco, and the British and French regions, in which expenditure is significantly higher. In the regions of Manchester, South West UK and Toulouse – one of the top 10 European regions in these terms, with 3.7% of its GDP devoted to R & D expenditure – it is even higher than the European average. In addition to Midi-Pyrénées, North- and South-West and the West Midlands in England, Brittany, Centre, Haute-Normandie and Aquitaine in France are the regions with the highest and most rapidly growing expenditure on R & D.

At the same time, we can note that Midi-Pyrénées is top of the list in terms of numbers of patent applications filed per million inhabitants, alongside the south of Ireland and Brittany. Here again a sharp contrast is clear between a ‘north Atlantic’ encompassing the British regions, the French regions north of the Loire and those of the south-west of France and the Iberian Peninsula, in which the level of patents granted appears much lower. Midi-Pyrénées is in a special position with regard to this contrast, since for this indicator as for those concerning research and development, it comes top of the list among the Atlantic regions.

### ***Several over-specialised local territories (see map 10)***

Calculating the economic specialisation coefficient<sup>29</sup> makes it possible to do a more detailed analysis of the particular productive circumstances of some regions. It shows that some of them are overspecialised. This is often a potential source of danger, and less often a source of new opportunities in the current context of intense globalisation of the economy. Some regions, which are overspecialised in traditional manufacturing sectors such as textiles and clothing for example, will experience more difficulties, particularly with the end of quotas imposed on developing countries and the growth of new competition (from China, India, etc.). On the other hand, those that have a high degree of specialisation in advanced services or high technology sectors will be able to make the most of their involvement in the world economy.

To be more precise about this matter, we have calculated coefficients based on data available for each country<sup>30</sup>, and considered any region whose coefficient was over 1.5 as strongly overspecialised. There seem to be very wide regional imbalances. Our method therefore favoured the identification of what we propose to call “dominant overspecialisation” of different areas, bearing in mind that some areas where economic activity is more diversified, and therefore no doubt less vulnerable, do not have a specialisation coefficient over 1.5 for any of their sectors.

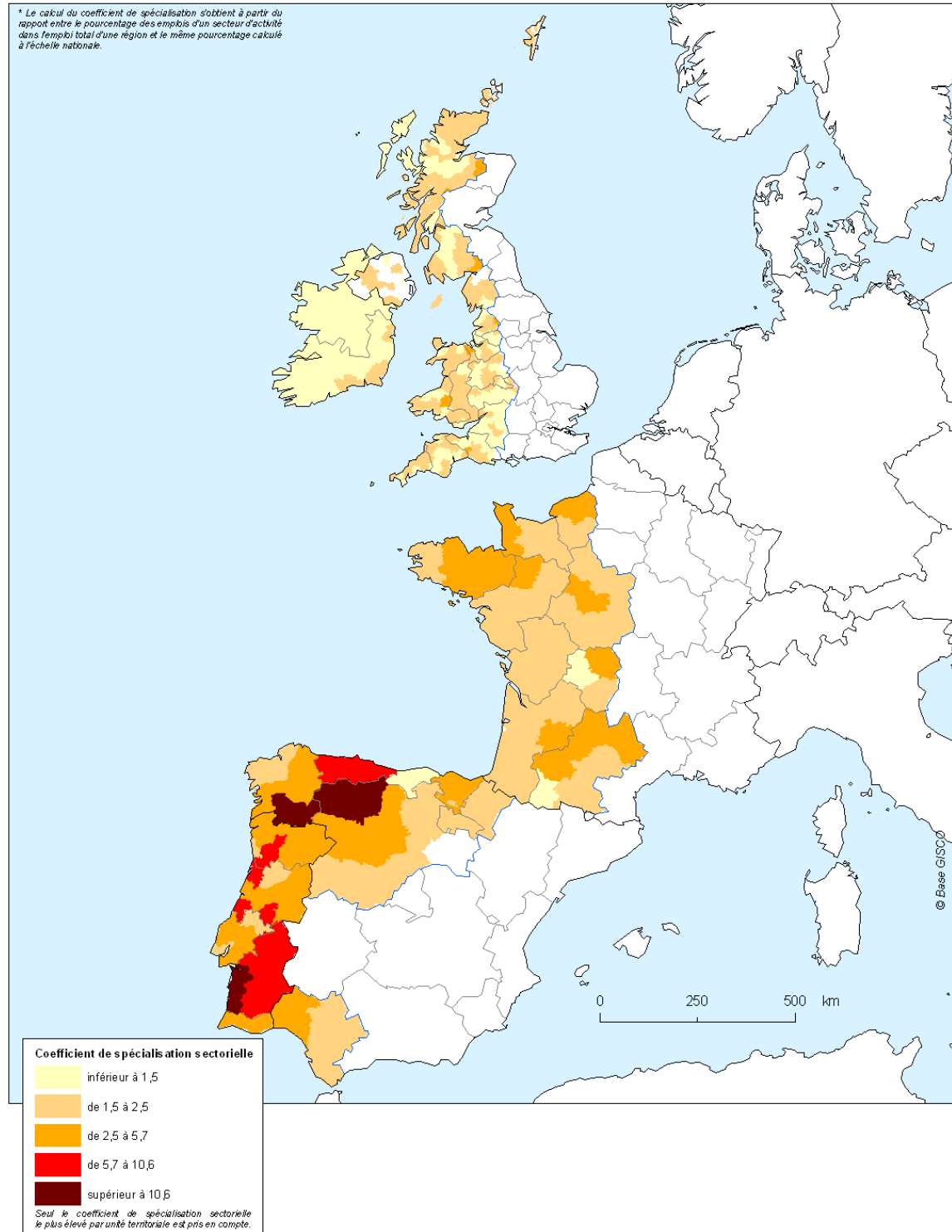
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<sup>29</sup> The economic specialisation coefficient can be calculated on the basis of the relationship between the percentage of jobs in a sector of activity as part of the total number of jobs in the region, and the same percentage calculated at national level. An area is said to be “overspecialised” if the coefficient is more than one, which means that the importance of the sector in regional employment is higher than it is at regional level. It is said to be “underspecialised” where the coefficient is less than one unit.

<sup>30</sup> Because data is not homogenous for all countries, any comparison needs to be made with considerable care.

So in France, the calculation was made at NUTS 3 level, using a classification in 16 sectors. Without going into the whole set of results in detail, it appears that the whole of the French Atlantic Area is highly overspecialised in the interrelated sectors of agriculture and food production. When the nine regions (NUTS 2) are considered together, the specialisation coefficient is 1.65 for agriculture and 1.36 for the food production. This consequently confirms the agricultural vocation of the French west (see above). On the other hand, the coefficients are

**Map 10 : Highest sectoral specialisation coefficient (NUTS 3)**



Source : Institut statistiques nationaux

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low for all service sectors, in particular those with a recognised strategic importance. These include transport (0.84), finance (0.82), real estate (0.67) and services to businesses (0.67).

The domination of agriculture at the more local NUTS 3 level is also clearly apparent. 27 out of NUTS 3 areas have specialisation coefficients over 1.5 in this sector, and 16 out of 40 exceed this level in the food production industries. Other high overspecialisations with a coefficient over 1.5 concern:

- Consumer goods production (8 out of 40<sup>31</sup>). Here there are only NUTS areas which are dominated by medium-sized towns, with the exception of Orléans in the Loiret.
- The automobile industry (9 out of 40<sup>32</sup>). The overspecialisation of this sector concerns departments where major intermediate cities are located (Rouen, Caen, Rennes, Le Mans and Poitiers). It should also be stressed that even though the specialisation coefficient is much lower, Bordeaux (in the department of Gironde) also plays a significant role in the French car production industry.
- Capital intensive engineering (2 out of 40), with an arms manufacturing industry which is undergoing full restructuring in the Cher (the Bourges plant) and Haute-Garonne (Toulouse), with aeronautics in full expansion thanks to Airbus;
- Intermediate goods (4 out of 40)<sup>33</sup> ;
- Energy (3 out of 40), due to the presence of one of Europe's biggest refineries in Seine-Maritime near Le Havre (Notre Dame de Gravanchon) and nuclear plants in the Manche (where the La Hague uranium processing centre is also located) and Indre et Loire, with the Chinon plant. There are several other nuclear electricity production centres in the Atlantic Area, but in relative terms they have less of an impact on the employment rate at department level.
- The Deux-Sèvres is one last particular example that deserves to be pointed out. Its main centre is the medium-sized town of Niort, which is the capital of the French insurance industry, with one of the highest numbers of mutual insurance company headquarters in France. This explains why the Deux-Sèvres appears to be the most specialised department in financial activities in the French Atlantic Area.

The fact that we calculated the specialisation coefficients at NUTS 3 level, in this case for the departments, is not entirely satisfactory in terms of analysis of urban and regional systems, because a department can cover several towns and cities belonging to different systems. It is also generally made up of densely urbanised urban spaces and highly rural peripheries. This is why we also calculated the specialisation coefficients of the urban areas of metropolitan regions and intermediate cities in comparison to France as a whole. This reveals that:

- The three metropolises are in varying situations. Nantes-Saint-Nazaire's only dominant over-specialisation (coefficient over 1.5) is in capital goods (1.75), due to shipbuilding,

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<sup>31</sup> This concerns the *départements* Eure, Orne, Maine et Loire, Mayenne, Vendée, Eure et Loir, Indre and Loiret

<sup>32</sup> That is, the *départements* Seine-Maritime, Calvados, Orne, Ille et Vilaine, Sarthe, Deux-Sèvres, Vienne, Eure et Loir, and Loir et Cher

<sup>33</sup> That is, Eure, Charente, Eure et Loir and Ariège

and the construction of cruise liners in particular. The Nantes metropolis also seems to have a large services to enterprises sector, although it would be inappropriate to say that there is a very high degree of over-specialisation (1.28). There appears to be no dominant over-specialisation in Bordeaux's local economy, although there are fairly high coefficients in financial services (1.22) and services to enterprises (1.13). As for Toulouse, its status as the capital of the aeronautics industry, due to the presence of Airbus, explains its very high over-specialisation in the capital goods sector. In sum, as a result of their specialisations, the French metropolises have fairly favourable economic foundations which help to ensure their international renown.

- The 14 cities and intermediate systems are in fairly varied situations. Five of them – Caen-Bayeux (2.96), Rennes (3.57), Poitiers-Châtelleraut (2.50), Le Havre (4.72) and Le Mans (4.57) – have a very high degree of over-specialisation in the automotive industry. Although there is a big and dynamic automotive sector in France, one might wonder whether these cities might not at some time in the future suffer from the effects of new competition resulting from the emergence of new car manufacturing countries. Another specific characteristic of several French cities and intermediate systems is that many of them are over-specialised in the capital goods sector. Half of them have a specialisation co-efficient over 1.5, including La Rochelle-Rochefort (1.54), Le Havre (1.76), Pau-Tarbes-Lourdes-Oloron (1.70), Le Mans (1.70), Bayonne-Anglet-Biarritz (1.58), Brest (2.58) and Angers (1.74). Lastly, the particular case of Le Havre should be mentioned, because it has a strong industrial base which is highly specialised in four sectors (transport, energy, capital goods and the automotive industry). From this point of view, Le Havre occupies a unique place in the urban landscape of Atlantic regions, which is likely to become even more notable with the construction of Port 2000. Le Havre and its neighbour Rouen combine an economic potential equivalent to or greater than certain metropolises.

In the British case, the analysis of local specialisations is both more precise at local and regional level and less fragmented, because data is available for Travel to Work Areas (TTWAs), but only for nine sectors. Our analysis focuses on sectors for which the specialisation coefficient is also more than 1.5, and at the same time the highest<sup>34</sup>. It should be said that this dominant overspecialisation, which reflects the main focus of the local economy, is not necessarily in the sector with the biggest number of jobs in many British regions, namely services, and in particular the retail, hotel and catering sectors on the one hand, and in public administration, education and health on the other hand. As far as specialisation coefficients are concerned, it has been identified that:

- In the South West, 13 TTWAs have an overspecialisation in manufacturing industry, and just eight in the retail, hotel and catering sector. Three others distinguish themselves with an overspecialisation in the construction sector, one in the public administration, education and health sector, and one in the other services sector. But half of TTWAs do not have any dominant overspecialisation, indicating that they may have a good degree of economic diversification, which is favourable in development terms.
- In Wales, in spite of strong job growth in financial services, the situation is distinguished by a strong presence of manufacturing industries, because out of 36 TTWAs, 11 have

<sup>34</sup> It should be noted that the specialisation coefficients were not calculated for agriculture, but the low level of people employed in agriculture in absolute terms in the British regions implies that the high specialisation coefficient in this sector is of little significance.



their highest coefficient (over 1.5) in this sector. But several TTWAs are highly specialised in the following areas: construction (7 cases), retail, hotel and catering (4 cases), public administration, education and health (4 cases), other services (3 cases), and transport and communication (1 case). If we bear in mind that 30 out of 36 areas have at least one overspecialisation over 1.5, we can conclude that Wales runs the risk of having to deal with restructuring problems at local level, notably those linked to changes in the manufacturing industry and construction.

- In the North-West region. Analysis of coefficients clearly highlights the importance of manufacturing industry: 8 out of 24 TTWAs have their highest coefficient – over the 1.5 threshold – in this sector (and for 5 of them, this sector accounts for even more jobs than services). Construction is only dominant in one case. The transport and communication sectors on one hand, and other services on the other hand, are each dominant in two cases. Here again, in spite of the significant though declining importance of manufacturing industry, there is no overall dominant overspecialisation, because 11 TTWAs have no overspecialisation over 1.5.
- In Scotland, local overspecialisations remain dominated by: construction (10 out of 54 cases), manufacturing industry (8 cases), retail, hotel and catering (5 cases), public administration, education and health (4 cases), other services (4 cases), transport and communication (3 cases) and finance and insurance (1 case). For the latter, the coefficient was as high as 1.55 in the Thurso TTWA. Similarly to Wales, Scotland seems to be a region that is characterised by a relatively low diversification of its activities at local level, insofar as a great majority of TTWAs (35 out of 54) have a coefficient over 1.5 in one sector.
- Out of the 17 TTWAs in the West Midlands, 7 are again characterised by a dominant overspecialisation in manufacturing industry, 2 in construction and one in transport and communication. This clearly reflects the importance of a long industrial history, even though just one TTWA still has its highest percentage of employment in this sector.
- In Northern Ireland, the construction sector is in a situation of dominant overspecialisation in 4 out of 11 TTWAs, and construction in 3 cases. A further case is characterised by an overspecialisation in public administration, education and health. In many respects the overall situation is characterised by a degree of local diversification which is somewhat low and comparable to Scotland and Wales (8 out of 11 TTWAs have a coefficient over 1.5).

In sum, while the situation of the major British regions reveals contrasts in terms of the indicator used here, it has to be said that there is still a high level of industrial specialisation (in spite of a high level of employment in services), while on the other hand there is a degree of underspecialisation in agriculture. Certain regions, especially English ones, have more balanced specialisation profiles at local level than others.

There is a fairly strong contrast between British regions and other Atlantic Area regions. Aside from a few isolated cases of industrial overspecialisation, one can also presume that British regions are less directly exposed to the effects of globalisation. This conclusion could however only be definitively confirmed further to an analysis of local specialisations at a more detailed sub-sectoral level.

The availability of data at TTWA level also gives us a possibility to examine the situation of British metropolitan regions and intermediate systems on a case by case basis.

- As far as British metropolitan regions are concerned, only the West Midlands system (Birmingham) has a dominant overspecialisation in manufacturing industry and consumer goods, with a coefficient of 1.54. The three other metropolitan regions have more diversified economies and no specialisation. The highest levels of specialisation are manufacturing industry in Liverpool-Manchester (coefficient: 1.22), manufacturing industry in Cardiff-Swansea-Newport<sup>35</sup> (coefficient: 1.32), and public administration, education and health in Glasgow-Edinburgh (coefficient: 1.10). On first analysis, one can consider this absence of dominant overspecialisation is more of an advantage than a weakness in the current context of globalisation of the economy.
- Intermediate cities are in a more varying situation. Some of them have a very high degree of industrial overspecialisation. This is the case for Blackburn (coefficient: 2.05), Burnley/Nelson (coefficient: 2.16), Stoke-on-Trent (coefficient: 1.87) and Telford (coefficient: 1.99). Londonderry is notable for its overspecialisation in administration (coefficient: 1.57) and Preston for its overspecialisation in construction (coefficient: 1.56). Other intermediate cities do not have a very high level of overspecialisation, and their main specialisations are more varied:
  - The main specialisation of the Bournemouth-Poole system is in retail, hotel and catering (coefficient: 1.12);
  - In Bristol, it is banking, finance and insurance (coefficient: 1.22);
  - In Cheltenham, Plymouth and Blackpool, it is manufacturing industry (coefficients 1.34, 1.22 and 1.38 respectively);
  - in Gloucester, it is construction (coefficient: 1.12);
  - Swindon is coming near to strong overspecialisation in the transport and communication sector (coefficient: 1.49);
  - Torbay and Belfast also have high coefficients in public administration, although they are though lower than 1.5 (1.43 and 1.44 respectively).

In the Republic of Ireland, it was only possible to calculate the specialisation coefficients for the counties. It was not possible to cover the agriculture and energy sectors, which cover 6.3% and 0.07% of total number of jobs respectively. Regional distribution of jobs seems to be relatively balanced in this country, with only 2 out of 27 counties having a dominant overspecialisation: the County of Dublin in the banking, finance and insurance (coefficient of 1.52 – more than a third of all of the country's jobs in this sector are concentrated in Dublin); and Waterford in the manufacturing industry (coefficient of 1.60). Ireland has a fairly balanced spatial distribution of local specialisations. This having been said, the country's economy remains widely dominated by construction and manufacturing industry. They are the main specialisations (although with coefficients lower than 1.5) in 13 and 9 out of 27 counties respectively. Further to a more detailed examination, with the counties concerned being regrouped, it seems that the situation regarding level 1 and 2 urban systems is fairly favourable, because no Irish system has a strong or very strong overspecialisation. The Greater Dublin metropolis retains its financial specialisation (coefficient: 1.38), and, among intermediate cities and systems, Galway is notable for having a specialisation in the construction sector, although the coefficient is only 1.12. The other intermediate systems are specialised in manufacturing industry (Cork: 1.15, Limerick: 1.30,

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<sup>35</sup> The main source of employment is nevertheless still in public administration, education and health.

Waterford – the intermediate system and not the county: 1.36). No major weaknesses in the Irish specialisations have in principle been identified, but it should not be forgotten that this country's manufacturing industry is largely dependent on foreign direct investment, which as we know is easily moveable and redirected elsewhere.

For Spain, the data makes it possible to emphasise the considerable importance of agriculture in most of the Spanish regions. The agriculture coefficient is indeed as high as 1.30 for all of the 9 Atlantic regions taken together. It is 1.75 in Andalucia, 1.58 in Castilla y Leon, 2.19 in Galicia and 1.83 in Murcia. Half of the regions are underspecialised in food production and manufacturing industries (with a coefficient less than 1), and only La Rioja, due to its vineyards, has a dominant overspecialisation in the food and drink production industries. Mining industries, chemicals and petrochemicals, rubber, manufacture of basic metals, energy and water are over-represented in Asturias (1.66), Navarra (2.07) and Pais Vasco (1.58). Pais Vasco has a very high level of specialisation in mechanical engineering, transport equipment and electrical equipment, with levels as high as 1.58. Lastly, it can be noted that all of the Spanish regions have low coefficients for services and advanced services: transport and communications, financial and real estate services and services to businesses have lower and often much lower coefficients per unit in all of the Spanish regions, with the exception of Pais Vasco (1.02). This constitutes a factor of weakness for the whole of the Spanish Atlantic Area.

However, the more detailed analysis based on NUTS 3 and covering 21 sectors reveals more marked specific local circumstances. Considering sectors for which there is a coefficient higher than 1.5, it becomes clear that several NUTS 3 areas have an over-specialisation in a certain number of sectors:

- 7 out of 23 NUTS 3 are highly overspecialised in agriculture, forestry and fisheries;
- 7 are also highly overspecialised in the agro-food and tobacco industry;
- 8 in mining, of which four present an extraordinarily high degree of over-specialisation (Asturias: 10.4, León: 17.97, Lugo: 3.52 and Ourense: 11.90);
- 9 in motor-vehicle production and transport equipment, notably the provinces of Valladolid (3.96), Navarra (3.76) and Pontevedra (3.96), which are consequently particularly exposed to international competition;
- 6, including the three Basque provinces, in the manufacture of basic metals and metal products;
- 3 in rubber and non-metal products;
- 2 in textiles and clothing (most Spanish NUTS 3 areas indeed present a high degree of under-specialisation in this area);
- 3 in computer equipment, electrical goods and electronic goods.

However, there is only one case of over-specialisation in the “water/energy”, furniture and other manufacturing activities” and “retail and hotel & catering” sectors. For all of the other sectors, and notably specialised services, there are no cases of over-specialisation, and it is more often the case that there is a degree of under-specialisation (coefficient below 1).

Lastly, at NUTS 3 level, the dominant over-specialisations strictly only concern a limited number of sectors, which are not generally among those which produce the most value-added. This might be perceived as showing that there is a lack of economic diversification in the Spanish Atlantic Area. Out of 23 NUTS areas (*provincias*) on the Spanish mainland, 4 have the highest degree of over-specialisation in “agriculture/forestry and fisheries” (Segovia, Zamora, Sevilla and Huelva), 2 in the agro-food industries (Salamanca and La Rioja), 5 in mining of ores (Asturias, León, Navarra, Ourense and Lugo), 5 in motor-vehicle production (Valladolid, Pontevedra, Palencia, Cantabria and Cádiz, among which the first three have very high coefficients of nearly 4), manufacture of basic metals, metal products and machinery, for which the Basque provinces of Alava, Guipúzcoa and Vizcaya also have very high coefficients. There are only three cases in which there is over-specialisation in a single province and just one case in which there is no over-specialisation at all<sup>36</sup>.

Furthermore, scrutiny of the specific circumstances of the major Spanish metropolitan areas brings highly varied situations to light:

- Sevilla has no dominant over-specialisation. The highest coefficients are in public administration (1.31) and health (1.24). However, the Sevilla coefficients for financial services, retail, hotel and catering and industry are in general low;
- The specialisation profile of Ciudad Astur contrasts strongly with the previous situation: there is a very high degree of over-specialisation in mining industries (10.42), which “smothers” all other sectors, with the exception of electrical energy (1.30) and health (1.30). This particular set of circumstances should probably cause concern about the future of the local Asturias economy;
- Bilbao has a wider range of specialisations, without any given sectors seeming to be too preponderant. The Basque capital has a high degree of specialisation in electrical energy (1.38), banking and financial services (1.20), real estate (1.33) and manufacturing industry (1.14 – it is the only one out of the three Spanish metropolises to have a coefficient over one for this sector).

Such contrasting situations can also be observed as far as intermediate cities are concerned. However, a calculation relating to all of these cities taken together reveals that they present a high degree of specialisation in the “agriculture, forestry and fisheries” sector (2.43 for all of the intermediate cities), due to the prevalence of coastal cities with a fishing port<sup>37</sup>, and in general services (public administration: 1.26; education: 1.22; health: 1.36...), whereas the coefficient for specialised services is less than one. Case by case examples of dominant over-specialisation observed include:

- Manufacturing industry in Vitoria (1.68);
- Fisheries in San-Sebastián-Irun (1.86), Algeciras (2.40), Pontevedra (10.60), La Coruña (3.58), Huelva (3.65) and Cádiz-Jerez (2.24);

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<sup>36</sup> Namely electrical, electronics and computer goods in the province of Avila, rubber and non-ferrous metal ores in Burgos, and textiles and clothing in the province of A Coruña. There is no instance of over-specialisation in Las Palmas.

<sup>37</sup> Restructuring imposed by Brussels in this sector has already and will yet have a major impact on the Spanish Atlantic Area.

- Mining industries in Santander (1.57) and León (3.68);
- Education in Santiago de Compostela (2.00) and Salamanca (1.95);
- Public administration in Ourense (1.56);
- Health in Pamplona (1.62);
- Manufacturing industry in Logroño (1.54);

Those cities which have not been mentioned have no dominant specialisation over 1.5.

In Portugal, it was not entirely possible to extrapolate the results obtained for metropolitan regions and intermediate cities. In contrast, the information sent to us is relatively detailed, with the sectoral classification including 27 items. This might furthermore explain why coefficients vary extremely widely in statistical terms, on a scale going from 0 to 10. This having been said, the variations also reflect the wide contrasts which differentiate Portuguese regions. It should be noted that the Portuguese data only includes formal employment, and that the place of agriculture in local specialisation is underestimated, especially in the north of the country where small self-sufficient family farms are predominant.

The observation of specialisation coefficients calculated at NUTS 2 level firstly reveals the very strong overspecialisation of the Norte region in the textiles and leather industries, as well as its marked underspecialisation in all services sectors. The Centro region for its part has high coefficients (generally over 2) in fisheries, plastics, metal work, machinery, transport equipment and even electrical equipment industries. The characteristic of the Lisboa e Vale do Tejo region is that it has no overspecialisation in any sector, with the exception of services to businesses (1.57). It also has very little underspecialisation, with the exception of traditional industries (textiles, leather, etc.). In other words, this region is the only one in Portugal which has a full and balanced range of activities. The Alentejo region, due to its latifundian-style agrarian structures, has an extremely high coefficient in the primary sector. It also has a high coefficient in petrochemicals, due to the port of Sines being located there. Lastly, the Algarve has a very high overspecialisation in fisheries and, because of tourism, services to persons.

Detailed analysis of the NUTS 3 level coefficients shows that there is a fairly wide concentration of dominant overspecialisations. Out of 28 NUTS 3 areas, 12 have their highest specialisation coefficient in agriculture, fisheries, wood and cork, two have it in mining activities, and five have it in textiles and leather. Only one NUTS 3 area has a dominant overspecialisation in refineries and petrochemicals industries, non-metallic mineral products, electrical industries, processing industries, plastic and rubber. Similarly, only one NUTS area has a dominant overspecialisation in services sectors such as public administration, services to persons and services to businesses.

From these data, it is also possible to indirectly pinpoint the strongest specialisations of the metropolises and intermediate systems:

- The metropolitan area of Lisboa extends over two NUTS 3 areas and has high specialisation coefficients, exceeding 1.5, in one or the other of these two NUTS for a great number of branches: Paper and publishing and press, chemical products and artificial fibres, electrical and optical equipment, transport equipment, transport and

communications (shipyards), financial and real estate activities, public administration, and other services. But it may be noticed that these overspecialisations are not extreme, since the coefficients never exceed 2. They do not relate either to sectors which are under threat from international competition, except the shipyards.

- The case of Porto is extremely different. Here again, this concerns two NUTS 3 areas in which specialisations are more restricted and especially more marked: specialisation coefficients can reach particularly high values in the following branches: leather (10.75), wood and cork (7.41), coke and petroleum products (2.49), rubber and plastics (3.63), metal products (2.38) and mechanical engineering (3.17). On the contrary, one finds in Porto many more very highly under-represented sectors than in Lisboa

In the NUTS 3 areas where the intermediate systems and cities are situated, the strongest overspecialisations remain frequently related to primary or secondary activities, which are subject to strong reorganisation trends, such as the farming, fishing or textile industries. Thus in the Norte Region, the NUTS covering Minho - Lima (Viana C Castelo) is over-specialised in agriculture, mining and construction<sup>38</sup>. Cávado (Braga) is mainly specialised in textiles (3.51), transport equipment and optical and electrical equipment. Ave (Guimarães) has a highly present textile industry (5.72) and transport equipment and electrical and optical equipment branches. It is Portugal's main employment area for the textile industry, for which the end of the multifibre agreements represents a very serious threat. Douro (Vila Real) is much more oriented towards primary specialisations with strongly overspecialised branches such as agriculture (5.06), food and drink production industries (2.31), mining (2.61) and construction. The Baixo Vouga (Aveiro) NUTS area is overspecialised in fishing (6.80), non-metallic products (4.23), rubber, metal work (3.18), mechanical engineering (2.17), transport equipment (3.40) and processing industries. Baixo Mondego (Coimbra) is also marked by a high importance of fishing, and non-metallic mineral products, food and drink production industries, paper and publishing and press. Pinhal Litoral (Leiria) is distinguished by a very strong presence of the plastic materials industry (6.43), but also has activity in non-metallic mineral products (4.65) and the mining sector. In Dão-Lafões (Viseu), transport equipment, processing industries, agriculture, mining activities and wood and cork sectors dominate the local productive system. Lezíria C Tejo (Santarém) is also oriented towards primary activities (agriculture, food industry, mining activities, wood and cork). Alentejo Central (Evora) is even more marked by the primary sector with very strong coefficients in the agriculture (8.18) and "mining" (7.17) sectors, but there is also a strong over-representation of electrical and optical equipment, public administration, and health and social services sectors. Lastly, Algarve, with capital Faro, has its strongest specialisations in fisheries, services to people and health and social services.

In sum, the examination of local dominant overspecialisations for the whole of the Atlantic Area shows that there is a very wide range of situations, which are characterised by varying degrees of weakness and consequently unequal capacity to participate in the globalisation process. Low added value areas where agriculture and traditional manufacturing industry predominates will encounter development difficulties (particularly some French agricultural areas and most Iberian Peninsula areas). On the other hand, some areas where the local economy is more diversified or overspecialised in advanced services will enjoy more favourable conditions when it comes to active participation in the world economy (particularly the British areas, some French systems, Lisboa and possibly the Basque and Navarra systems in the Iberian Peninsula). On the other

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<sup>38</sup> The exceedingly high level of employment in the building industry in Portugal in relation to other European countries, and the almost certain decline in public works and construction will have a strong impact on the fall in the workforce within this sector.

hand, areas with positive demographic growth and specialisation in the services to persons sector will be more sheltered from the effects of globalisation, thanks to the development of a residential economy (this is the case for the French Atlantic Areas, the Algarve and Andalusia). The mosaic of situations will affect the way the polycentric model will be shaped for the Atlantic Area.

The map showing the location of sectoral specialisations provides us with a good overview and highlights the diverse nature of productive structures resulting from a very high proportion of areas marked by dominant overspecialisation.

The following map shows us the highest level of specialisation coefficient for all sectors per NUTS 3 area. Because of the diverse nature of the classification systems used, it is difficult to make a detailed interpretation of this map. On the other hand it enables us to see the contrast between areas where the highest coefficient remains low – which is the indicator of a good degree of diversification of the local economy – and those where, to the contrary, it is strong. Accordingly it is possible to observe highly contrasted specialisation profiles between British and Irish regions, where the highest coefficient is generally fairly low, and Portuguese regions where, to the contrary, it is very high. This leads us to think that British and Irish regions are better equipped for dealing with possible restructuring problems. It should be noted that the Spanish and French regions are in an intermediate situation.

### **3.4 The economic dynamism of the regions seen from the point of view of their levels of production, productivity, and employment.**

The socio-economic structures that we have analysed previously partly explain the regions' economic results in terms of production, productivity and employment (other factors like accessibility, which we will study more in detail hereafter, have a strong impact). Since 1999, developments highlight the growth trends as in Spain, or recent recession trends as in Portugal.

#### ***Persistence of wide disparities in GDP and per capita GDP (see map 11)***

As the other indicators (population, etc.) have shown, the wide variety of situations across the Atlantic Area is also revealed by the measure of the economic weight of the regions. The regions' production capacity, considered here at NUTS 3 level, varies widely – the weight of the NUTS 3 in terms of GDP in millions of euros (indicator of economic weight) is significantly higher in the regions where the metropolitan regions (level I of the spatial analysis) are to be found. Inside this sub-set, there are wide disparities: Dublin and Lisboa, as well as the NUTS 3 regions of Manchester and Birmingham, Bordeaux, Nantes, and Toulouse, Bilbao and Vizcaya, comprise far and away the most important poles with regard to this indicator. The metropolitan regions of Porto, Ciudad Astur and Sevilla, on the other hand, lag behind and have a capacity to create wealth lower than certain NUTS 3 that do not have metropolitan regions but only intermediate cities, such as the Lower Seine, with Le Havre, or the City of Bristol in the UK.

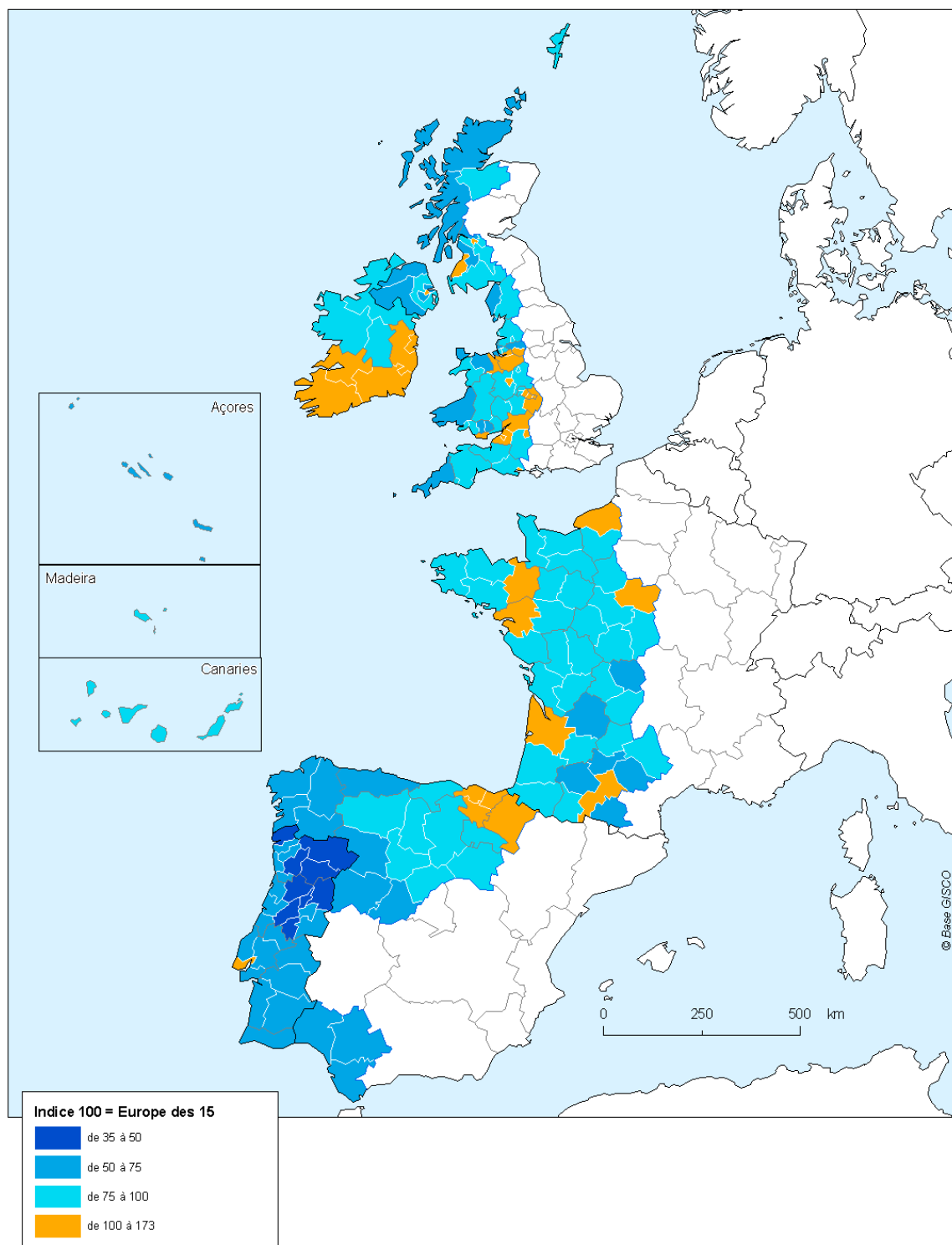
The NUTS 3 that perform least well in terms of volume of production are to be found essentially in Portugal (with the exception of Lisboa); Spain (Galicia, Asturias, Castilla y León); and in south-west France.

It should be noted however that the most successful regions still have levels of production that are way below those of the major European metropolises.

These conclusions relating to disparities across the Atlantic Area area not fundamentally modified if we look at per capita GDP. The regions above the European average are those that were



**Map 11 : GDP per capita in 2002**



Source : EUROSTAT

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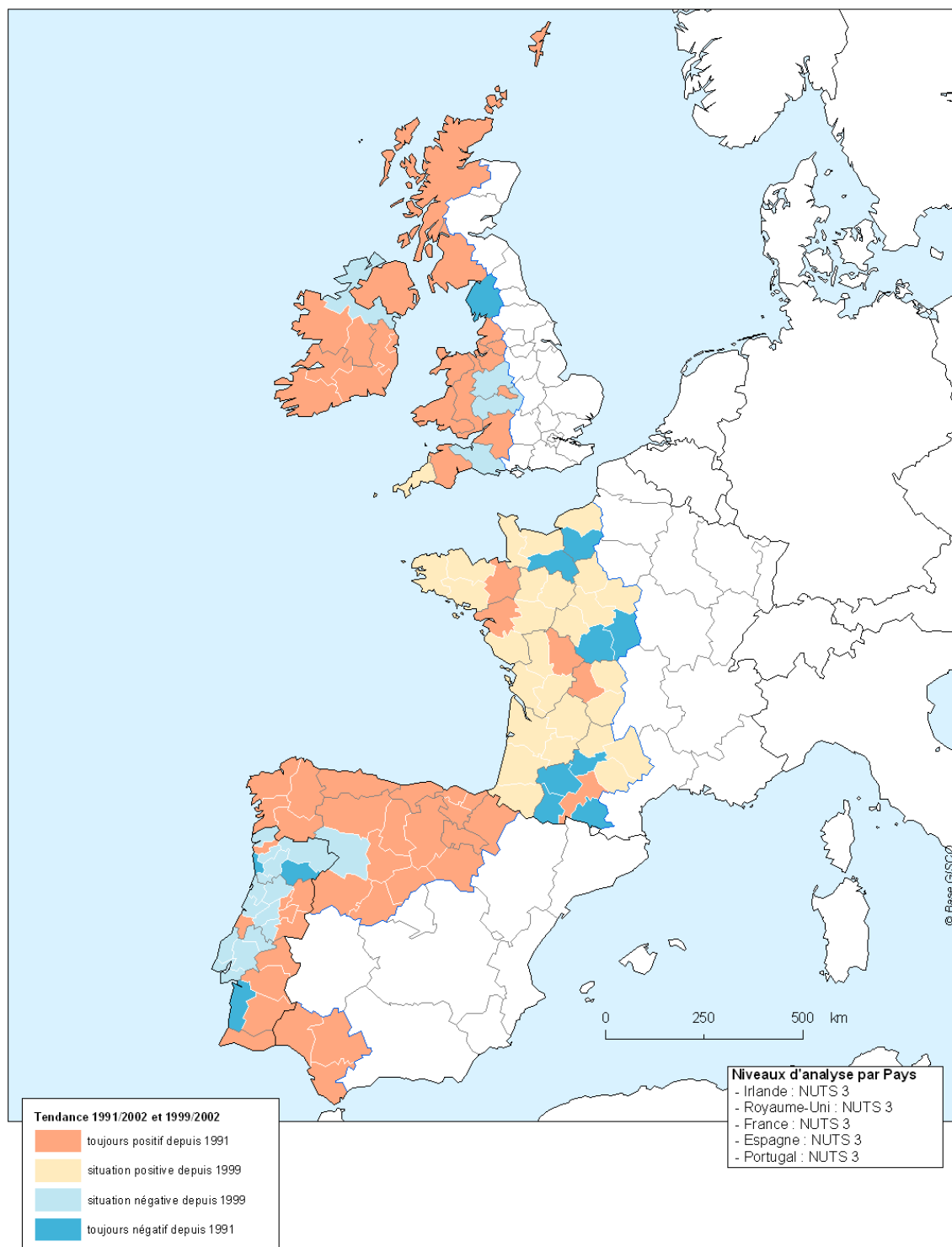
already at the top of the list in terms of volume of production (GDP in millions of euros): Dublin, Birmingham, Manchester-Liverpool, Bristol, Le Havre and the Lower Seine, Nantes and the Loire Atlantique, Bordeaux and the Gironde, Toulouse and the Haute Garonne, Bilbao and the Basque *provincias*, and Lisboa e Vale do Tejo, all have indices higher than 100 (the European average). However they are joined in this category by some of the intermediate systems, such as Cork, and Limerick-Shannon in Ireland, Glasgow-Edinburgh and Scotland Le Havre-Rouen and the Lower Seine, Rennes, and Orléans in France, and Pampelona and Navarra in Spain. On the other hand several metropolitan regions in the Iberian Peninsula lag behind: Ciudad Astur, Porto, and Sevilla. At the other end of the list, with the NUTS 3 in which per capita GDP in purchasing power parity is well below the EU average (lower than 75 and sometimes lower than 50), are to be found essentially the interior regions of Portugal, the Spanish regions of Galicia, Asturias and the western *provincias* of Castilla y León and Andalucía, some *départements* of the centre and south-west France principally belonging to the regions of Limousin and Midi-Pyrénées, and finally a few NUTS 3 in England (Cornwall and the Isles of Scilly, Cumbria and Mersyside, north Scotland and west of Northern Ireland).

### ***Disparities in rates of growth (see map 12)***

A look at growth rates calculated at NUTS 3 offers us a somewhat different view of the Atlantic regions. In other words, the regions with the fastest growth are not necessarily the strongest regions. The variation in GDP over the decade 1991-2001 highlights the strong dynamism of the Portuguese NUTS 3 regions (at least almost all of them apart from the coastal area of Alentejo, which is confronted with problems in its heavy industry, at Sines), the Irish regions and most of the British regions. Most of the coastal *départements* of the French Atlantic, some Spanish regions and the interior regions of Portugal have a more moderate growth. On the other hand, all the Spanish *provincias* and most of the French *départements* of the interior have experienced decelerating growth and a growth rate lower than the European average. The contrast is very sharp between certain Irish and Portuguese NUTS 3 whose GDP has tripled over the ten years, and the Spanish *provincias* as a whole or the French *départements* of the interior, whose growth has remained lower than that of the EU (+ 56.2% between 1991 and 1999 ).

The analysis of the variation of per capita GDP (ppp) also modifies the perception of regional trends. This indicator is, as we know, marred by incertitude and difficult to interpret in isolation, since it is the result of two different trends, that of population and that of GDP, which is in addition corrected to take account of purchasing power parity. Furthermore, per capita GDP does not take account of interregional transfers of revenue, and cannot therefore be considered an indicator of local wealth. Lastly, growth in GDP is far from including all the aspects of social and economic development. In spite of these limitations, and the uncertainties which increase in line with the degree to which spatial integration is absent, growth in per capita GDP does give us a glimpse of the economic trends of the regions. From this point of view the dynamism of the Irish regions stands out in particular. The growth rates of the regions of the Iberian Peninsula (with the exception of the coastal part of Alentejo, the Douro and the region of Porto) and the British regions (apart from Cumbria) are at a much lower level. As for the French regions, they are for the most part characterised by a weak or even negative growth. The analysis of recent trends allows us to moderate some comments. Certain NUTS 3 areas have been experiencing negative trends for some years, in the same way as certain English and Irish Regions. The situation has also been more favourable in France for a great number of *départements* since 1999. Some regions carrying forward their momentum for development (almost all the Spanish regions, the majority of the Irish regions, many British regions and the Portuguese inland NUTS 3 areas);

**Map 12 : Variation of the GDP per capita (in PPP) between 1991 and 2002**



Source : EUROSTAT

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other regions face persistent difficulties: the region of Cumbria in the United Kingdom, the higher Douro valley, coastal Alentejo and the *départements* of Ariège, Hautes-Pyrénées, Gers, Tarn-and-Garonne, Indre, Cher, Orne and Eure in France.

We must be wary of optical illusions however. In a certain number of regions per capita GDP has fallen because the population has grown faster than the economy, whereas in others, inversely, per capita GDP has risen simply as a result of their demographic decline. Four distinct profiles emerge from the result of combining the two variables:

- Regions that combine positive growth trends in both population and production, that is the coastal areas of Portugal and Galicia, some of the Basque and Andalusian *provincias*, a few French *départements*, most of the British regions, and the whole of Ireland;
- Regions in which per capita GDP has increased under the effect of negative population growth, which is undeniably a cause for concern for the future. These are the NUTS 3 of the interior of Portugal, and most of the Spanish *provincias* and Stotland;
- Regions in which per capita GDP is falling mainly because of positive population growth. Their situation is no doubt less problematic for the future, subject to a boost in the medium term of their production. These are mostly the French regions, along with some isolated cases in the other countries;
- The more difficult case of regions in decline, in which per capita GDP is falling in spite of a fall in population, such as Cumbria in the UK, the coastal areas of Alentejo, Douro, and nine French *départements* mostly concentrated in the 'arid diagonal' of France.

Another combination of variables highlights the different trends from one region to another on the basis of their production capacity measured by per capita GDP (ppp) combined with growth in per capita GDP. From this we can distinguish six groups of regions in terms of their convergence to or divergence from the European average:

- Group I: group of the poorest regions (per capita GDP lower than 50% of the average of EU15) but that are catching up; regions of the Portuguese hinterland;
- Group II: group of regions with a per capita GDP between 50% and 75% of the EU average, but closing the gap; the other Portuguese regions, Spanish regions and some British regions;
- Group III: group of regions with a per capita GDP between 50% and 75% of the EU average but diverging from this; regions in difficulties, either in France, Spain or Britain in certain cases;
- Group IV: regions with a per capita GDP between 75% and 100% of the EU average, but diverging from this; most of the French regions, some British regions;
- Group V: regions with average growth (per capita GDP between 75% and 100% of the EU average), but converging towards the European average; these are regions with a rapid growth in per capita GDP: Leziria do Tejo in Portugal, Mid-East, South-East and Border in Ireland;

- Group VI: the strongest and most dynamic regions, combining a per capita GDP higher than 100% of the EU average and fast growth of this indicator; Dublin, Midwest, and South-West in Ireland; Lisboa
- Cheshire and Gloucestershire in England, Guipuzcoa and Navarra in Spain.

### ***Significant differentials in productivity***

Production and growth are not the only variables that can be used to assess the economic weight and the competitiveness of a region. Another essential variable is the productivity of employment, the level of which can contribute to determining the attractiveness of a region. There is a sharp contrast between the French, Irish, Welsh and English regions, which have productivity levels higher than or close to the European average, and the regions with a level lower than this average, notably Scotland and the Portuguese and Spanish regions with the exception of the País Vasco. Productivity is particularly weak in Portugal, Galicia and Scotland. The ratio between the lowest levels (Portugal, Galicia, north of Scotland) and the highest levels (the French regions, south-west Scotland, Cumbria and South-West in England, the País Vasco and Navarra) ranges from 1 to 3.5.

An examination of this ratio at NUTS 3 level<sup>39</sup> gives us a more qualified picture of the differences in productivity between the regions, but the differentials observed above remain true for the most part (certain French *départements* show fairly low levels in Limousin, Poitou-Charentes and Brittany; the same is true for certain British counties and, especially, Wales).

In sum, the regions that combine high productivity with strong GDP growth are the best placed within the Atlantic Area in terms of competitiveness.

A comparison can also be made between the level of productivity and the rate of employment. There is not always a correlation between these two variables. The Atlantic Area includes regions in which the rate of employment is high, but which are lagging behind in terms of productivity (most of the Portuguese and some of the English regions). However we also find the inverse relation between the two variables in the French and some Spanish regions. For those regions with low productivity, the challenge is therefore to increase this without compromising their level of employment.

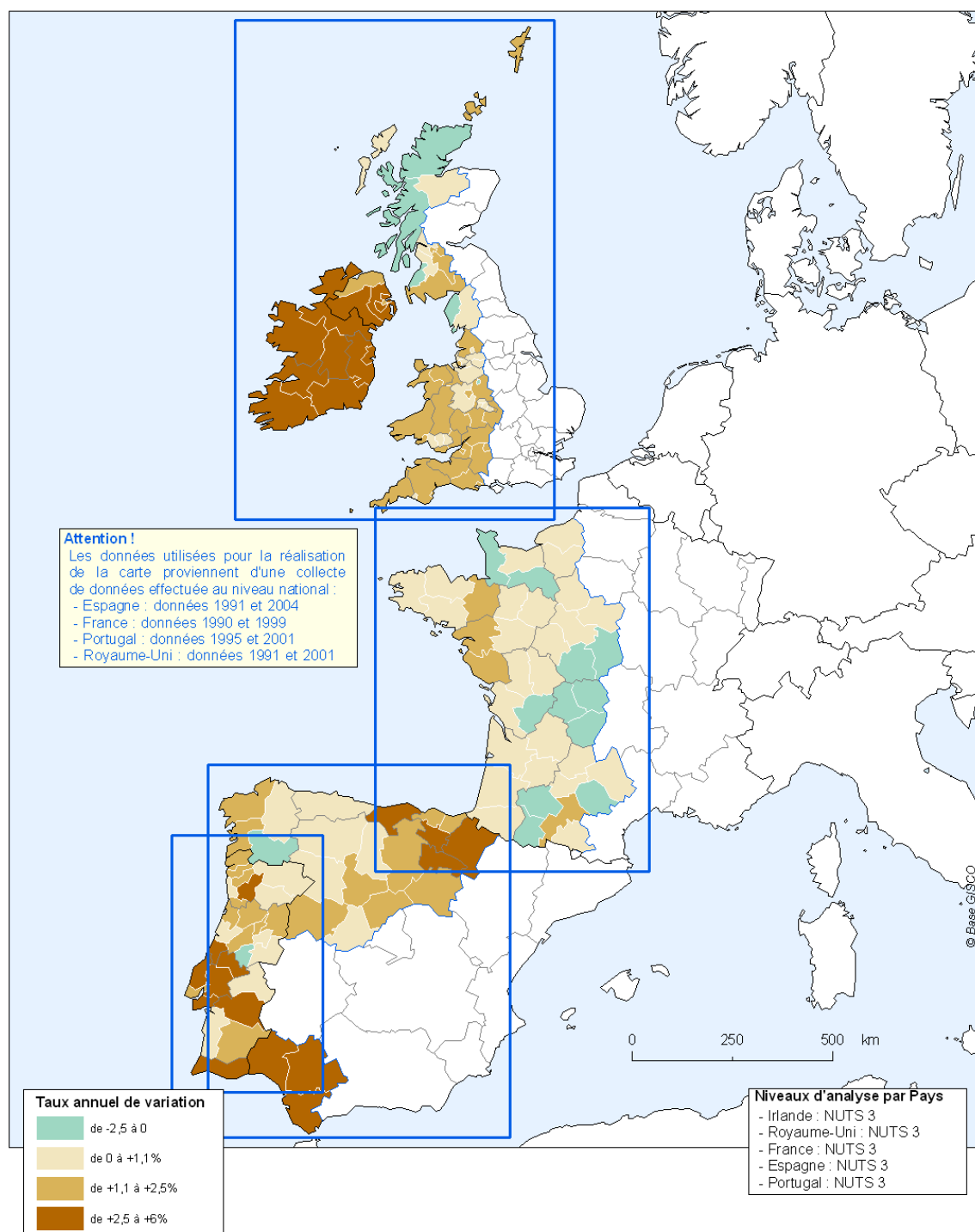
### ***Employment change (see map 13)***

This has been created using a number of different variables, relating to population, economic, social and cultural variables, and cannot be reduced down to the impact of the variables that have been examined above. However, since the employment trend remains one of the main barometers of regional economic development, it is appropriate to introduce it here at this stage in the analysis of the Atlantic regions. Once again, there is no really common situation to the whole of the Atlantic Area. Over the last decade of the 20<sup>th</sup> century, contradictory trends could be observed: in a majority of regions the level of employment rose, but at very different rates of growth. In a small minority of regions the numbers of employed increased rapidly, for example the urban region of Lisboa whose dynamism has already been illustrated by other indicators, the

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<sup>39</sup> The lack of available data means we have not been able to examine all NUTS 3 regions, and the map thus remains incomplete.

**Map 13 : Employment growth in Atlantic Area regions**



Sources :  
Espagne : Instituto Nacional de Estadística (INE)- Encuesta de Población Activa (EPA) / 1991-2004  
France : INSEE, RP 1990 & 1999  
Portugal : INE-Instituto Nacional de Estatística, Contas Regionais, série 1995-2001  
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Sevilla-Algesiras axis in Spain, Cantabria, the Alava provincia in the Basque Country, Navarra and la Rioja in Spain or Ireland. In other regions there was growth but at a more moderate, average or slow pace: most of the French regions and all the other Portuguese regions apart from Pinhal Interior Sul. Lastly, the case of a quite large number of NUTS 3 regions remains worrying since the trend is one of decline: nearly all the Spanish *provincias*, certain groups of French *départements* all belonging to the region of Limousin, the south of Poitou-Charentes and of the Centre region, Basse-Normandie and Midi-Pyrénées and north-west Scotland.

### **3.5 Transport networks and the accessibility of territories: a lack of intra Atlantic connections**

Not least among the common problems shared by numerous Atlantic regions and areas is that of isolation. Ireland, Scotland and its islands, and many of the interior regions of the Iberian Peninsula remain accessible only with difficulty, and generally speaking the macro-region suffers from a deficit of internal connections. While the principal metropolitan regions and intermediate cities are generally quite well connected to the main networks, although with varying degrees of connectivity, many large rural areas or medium-sized towns remain poorly connected and lack adequate links with other parts of the Atlantic Area.

Many areas are isolated because of natural obstacles or insufficient infrastructure. Priority in infrastructure building tends to be given to links with the ‘Pentagon of capitals’ rather than with other destinations. In addition, the radial form of the French and Spanish networks holds back the development of intra-Atlantic links. The existence of ‘glove-shaped’ networks in these two countries favours relations with the national capital cities, to the detriment of interregional flows.

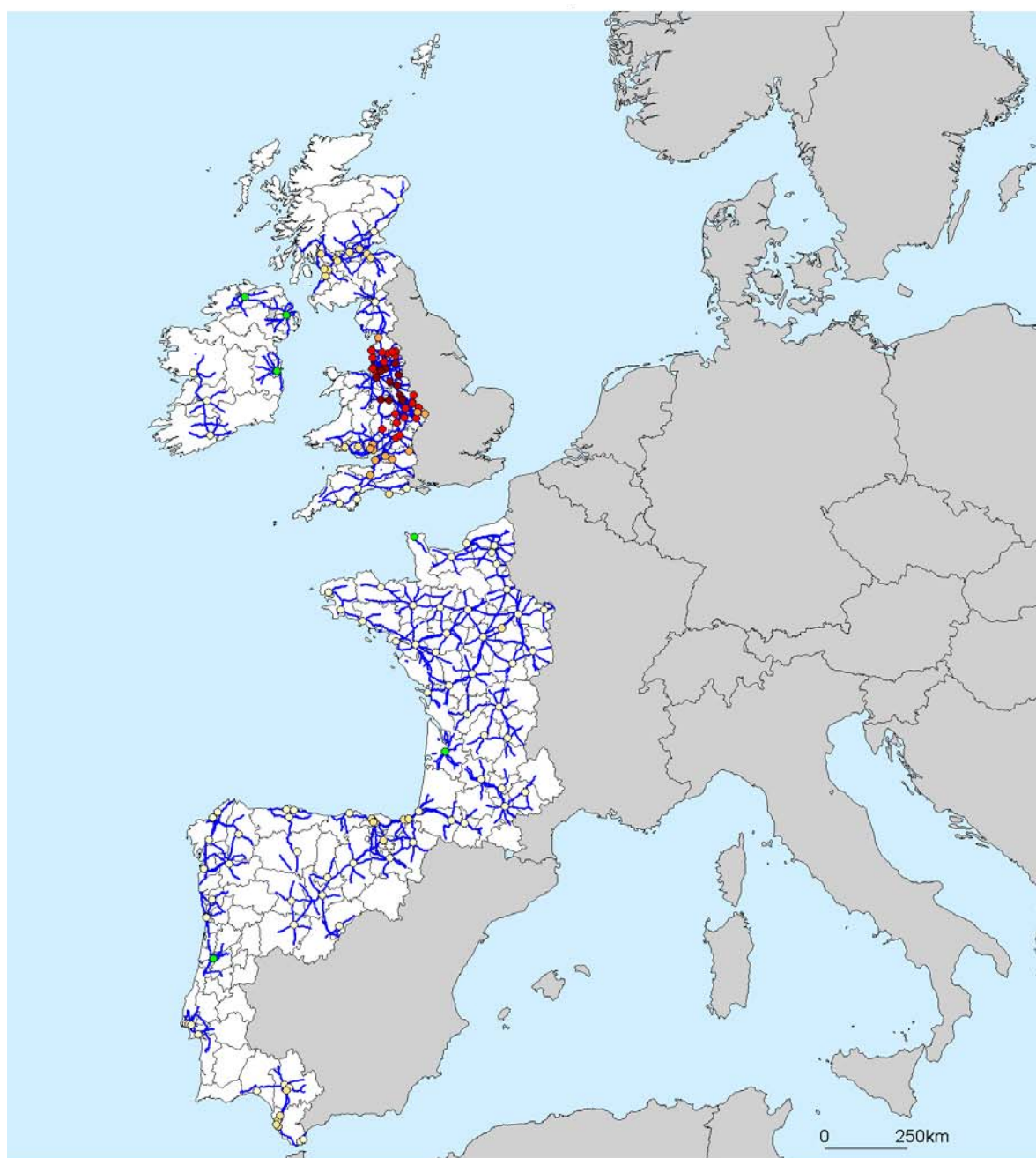
***A road transport network that fails to provide adequate accessibility for all the Atlantic regions (see map 14 and 15)***

The Atlantic regions are generally speaking quite well connected by road to the national capitals, and the recent development of new transversal routes means they are now also quite well connected to the regions of the centre of Europe. However, the degree of isolation, in terms of road access, remains high between the regions of the Atlantic Area themselves, in spite of recently-opened or planned new routes (the Estuaries motorway in France, the Bayonne-Bilbao-Santander-Oviedo axis, etc.).

The average road accessibility show that it is impossible to reach all the Atlantic regions within a time limit of 12 hours from any of the metropolitan regions (level I). Inversely, they also show the poor accessibility to the metropolitan regions from any point in the Atlantic Area. They reveal in fact the existence of important discontinuities in the networks and lack of interconnections with the national or even regional networks.

Similarly, the analysis drawn up by the ART team at Tours University CITERES Laboratory showing accessibility by road to each of the metropolitan regions (level I) also illustrates the difficulty in reaching all the Atlantic regions from them. In particular the metropolitan regions of the Iberian Peninsula – Lisboa, Porto, Ciudad Astur and to a lesser extent Bilbao – suffer from a deficit of accessibility to the Atlantic regions. As an example, accessibility by road from Oviedo, that it is impossible to reach Brittany or Basse-Normandie in less than 12 hours by road from Oviedo. Similar observations can be made taking British metropolitan regions as starting points.

**Map 14 : Number of towns and cities (pop.> 50,000) located less than 50 Km away by road**



Nombre de villes accessibles

- 24 - 31
- 18 - 24
- 12 - 18
- 6 - 12
- 1 - 6
- 0 - 1

— Réseau de transport

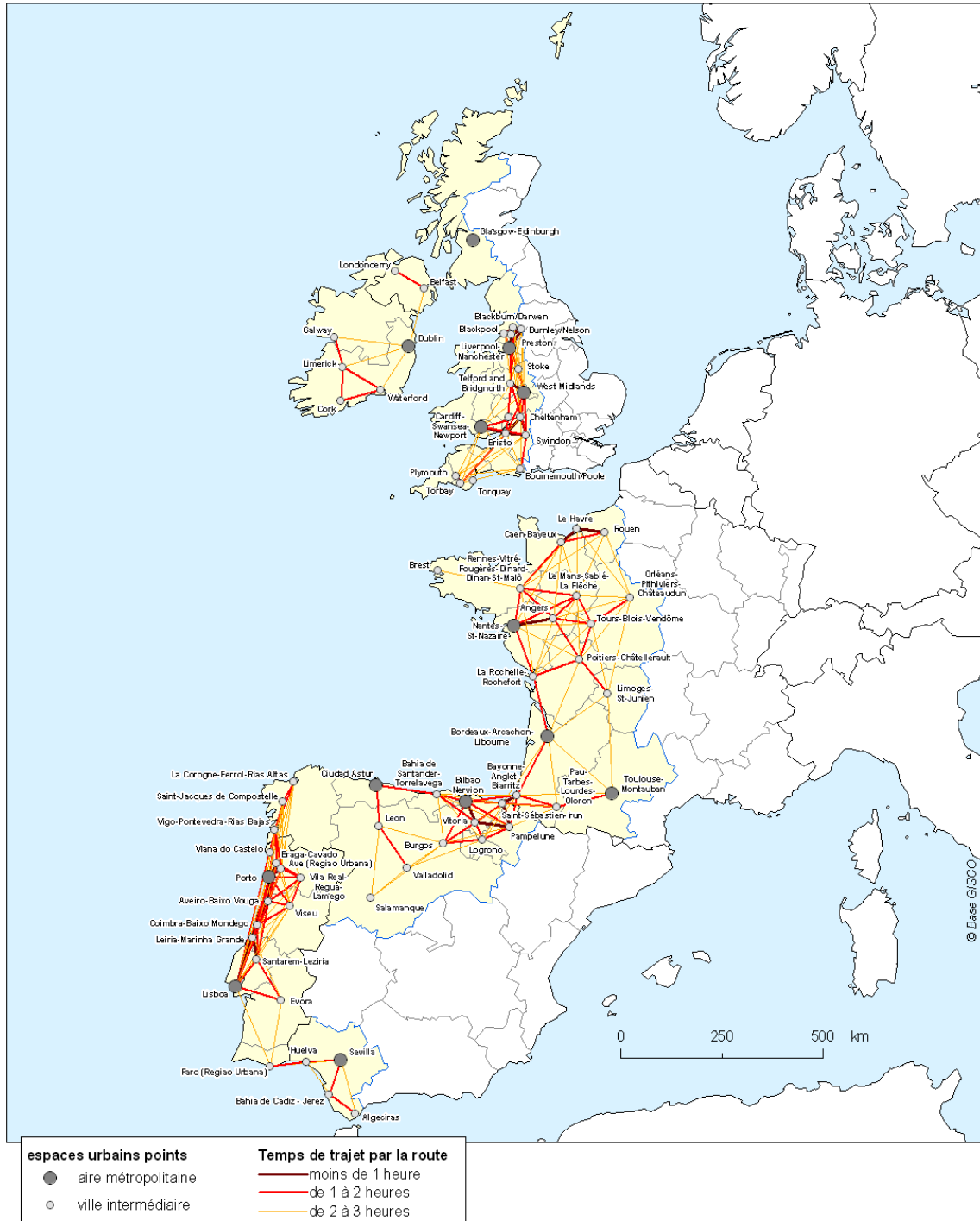
Auteur : Bock E, Bugueu J-B

Source : GISCO database

Université de Tours - UMR CITERES 6173 - 2004



**Map 15 : Road connectivity of urban areas (level 1 and 2)**



Source : [www.viamichelin.fr](http://www.viamichelin.fr)

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Finally, the number of Atlantic cities (levels I and II) which are accessible from another city within the same area within at least two hours confirms the unequal degree of relative accessibility and isolation of some systems. This is just a further reflection of the span of the Atlantic Area and the imbalances of its urban structure. British cities are in a more favourable position due to the United Kingdom's urban density and good existing accessibility conditions. On the other hand, Spanish cities and some French cities are in a less favourable position, and their distance from other major cities and/or more difficult accessibility conditions reduce their connectivity. The map of the road connectivity measured in terms of journey time per route highlights the existence of four geographical sub-areas which have good internal connections and, as a result, constitute suitable areas for developing the polycentric model. A first sub-area covers the southern, primarily English half of the British Atlantic Area. A second one covers the French centre-west and the Val de Loire. A third densely intermeshed area is emerging in the cross-border Basque/Pyrenees region. Lastly, a linear area of connections is clearly emerging on the western coast of the Iberian Peninsula. Between these four areas, there are large interstitial areas within which distance-time links between cities are much greater.

These observations are closely linked to the fact that the different regions have different levels of dual carriageway/motorway infrastructure - most of the Atlantic regions have a density lower than the European average (1.6 km per 100 km<sup>2</sup>). Even more significant is the radial design of the networks, which give priority to access to Madrid, London and Paris.

An even more unbalanced picture emerges further to analysis of two other indicators, which are the number of cities of more than 50,000 inhabitants located less than 50 Km away by road from each Atlantic metropolitan region or intermediate city, and the number of cities of more than 100,000 inhabitants located less than 100 Km away from each Atlantic metropolitan region or intermediate city. The map showing the first indicator, which has been drawn up using the GISCO database by the ART team of the Tours University CITERES Laboratory using this indicator, make it possible to analyse the density of road links between Atlantic cities.

This then enables us to indicate on the same map:

- The number of towns and cities of more than 50,000 inhabitants located less than 50 km away from each city;
- The extent of the road network at the start of each node within a radius of 50 km;
- Thus, if we take the example of Brest, only Quimper, as a town with a population over 50,000, is located less than 50 km away.

In research on areas that are potentially capable of organising themselves according to a polycentric model, it is appropriate to consider the demographic importance of cities in association with the distance separating them. This was why this map was selected, because it reflect potential inter-city relationships.

Indeed, it is important to measure the potential functional links between medium-sized cities (50,000 inhabitants) in close geographical proximity (50 km). This map enables us to identify existing internal imbalances concerning the Atlantic Area that have already been mentioned below. Yet again, the situation of cities in the United Kingdom stands apart because of the high urban density and their size, especially in England. It is the only part of the Atlantic Area to have a significant urban density from a polycentrism point of view, at least in morphological terms.

The number of cities with more than 50,000 inhabitants less than 50 Km away is very high (between 24 and 31). The French area is fairly homogenous, and cities with more than 50,000 inhabitants are generally spread throughout the area, although there is a lack of road network links between Brittany and Normandy, and within the Aquitaine region and Midi Pyrénées. In Spain, the Basque conurbation stands out fairly clearly, as does the system of towns around Cadiz. In Portugal, as in Ireland, the imbalance of the urban structure leaves “empty patches”, due to the absence of cities with more than 50,000 inhabitants.

Bearing this indicator in mind, one can once again stress that there is no homogenous situation for the Atlantic Area as a whole, but we are faced with diverse situations. This means that there will not be one unique polycentric Atlantic Area, but a multiple and unequal polycentrism within non-adjoining sub-areas.

***A rail network that remains centralised and ill-adapted to the spatial organisation of the Atlantic Area (see map 16)***

Rail infrastructure plays a lesser role in the intra-Atlantic flows of people and trade. The Spanish and Portuguese networks are not adapted to current demands for speed and comfort. The break of load at the French border is a major handicap. The French, English and Irish networks, because of their radial design, do not encourage links along the coasts, and only the main French cities in the Atlantic regions are well connected to Paris and via Paris to Brussels and London thanks to the TGV (high-speed train). The extension of the high-speed network, announced by the *Comité Interministériel d'Aménagement du Territoire* (French inter-ministerial planning committee) in the autumn of 2003 will help reduce, but only partially, the isolation of the regions. The rail networks are above all planned in line with national needs, and this limits the possibilities for interconnections which need to be encouraged within the Atlantic Area.

Nevertheless, some national sub-areas have relatively good railway connections (see map of railway connections on the Atlantic Area<sup>40</sup>) helping to structure well linked up territorial sub-systems countrywide. This is the case in the United Kingdom where the main systems in the centre of the country are well interconnected and have good links with London. The same applies to France, thanks to the Atlantic TGV high-speed train along the routes between Paris-Hendaye and Paris-Nantes and Rennes or between Orleans and Nantes for all towns and cities located along the Loire river. In the Iberian Peninsula, along the Portuguese coast, the connections between Porto and Lisboa are also of a good standard, linking up a set of intermediate systems and medium-sized cities lying between these two metropolitan areas. It is due to be prolonged by the high-speed link Vigo-Porto). The construction of future high-speed railway lines in Spain should also make it possible to improve rail connectivity for the urban systems of the north of the peninsula.

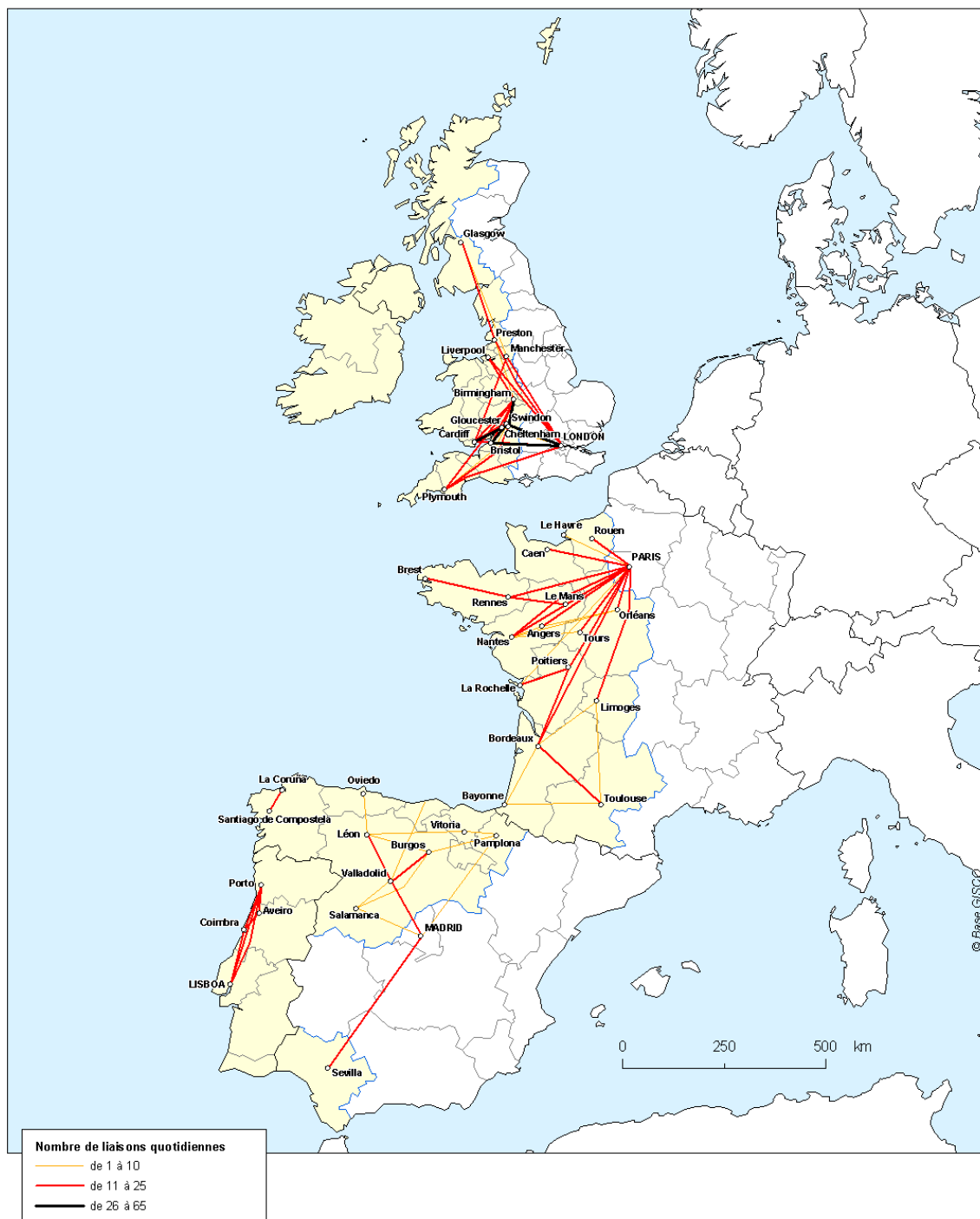
***The potential for maritime transport is insufficiently exploited (see map 17)***

For the most part, the Atlantic ports are relatively small, with the exception of Le Havre, and handle traffic that is not very diversified. As the map hereafter shows, many Atlantic ports have seen a reduction in tonnage. The Atlantic ports have had to face stiff competition from the

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<sup>40</sup> The requirements for this map are rail links with a speed above 90 km/h (below this, car travel is more competitive) and a journey time of under 3 hours (above this, air services are preferred).

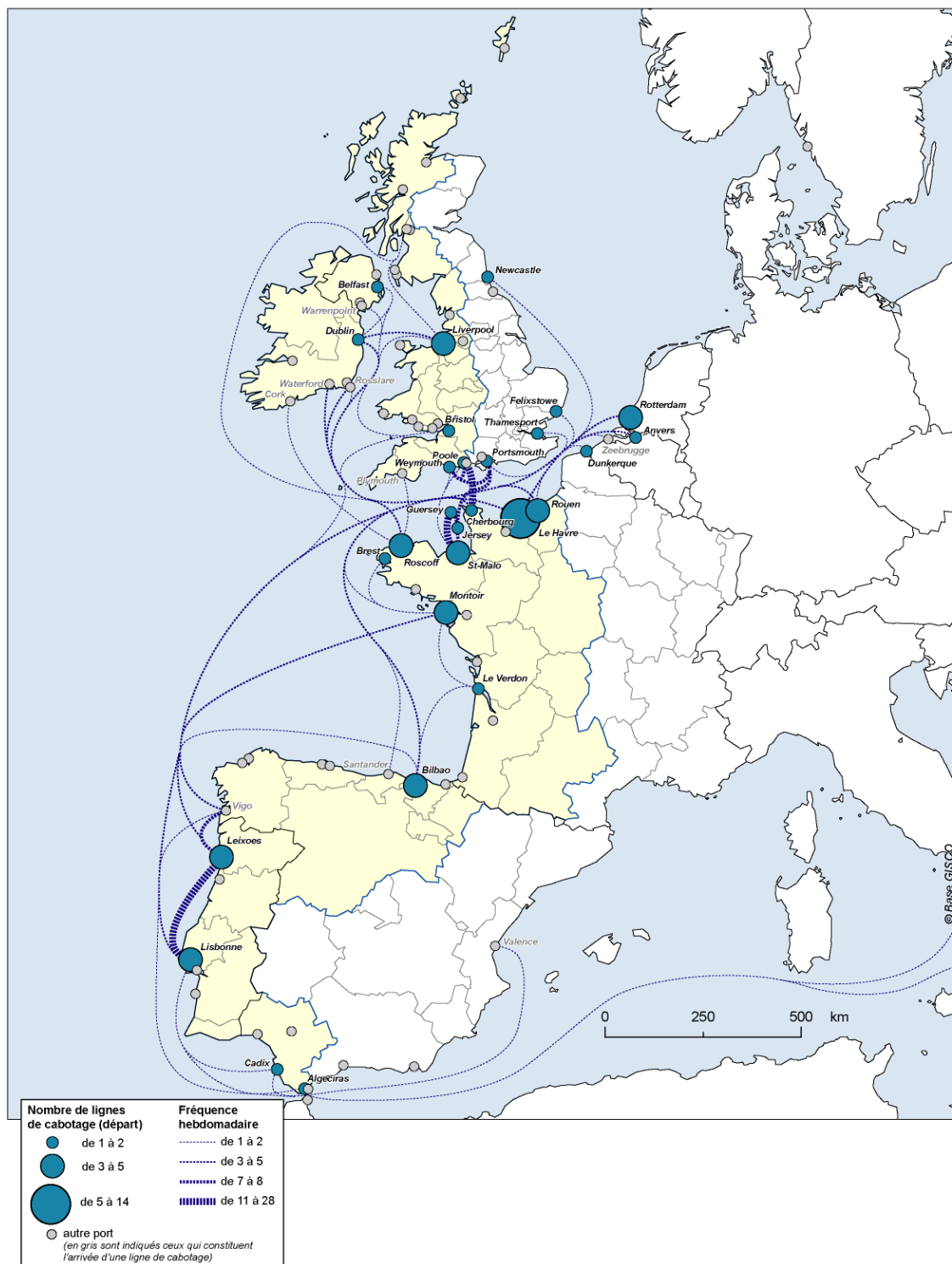
**Map 16: Rail connectivity within the Atlantic Area**



Source : CRPM

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**Map 17: Short sea shipping route serving Atlantic ports (April 2005)**



Source : CPPM

northern European and Mediterranean ports, and no longer play the decisive role as continental gateways that was theirs in the past.

On the European scale, the principal Atlantic ports now occupy a fairly modest position. Le Havre ranks 13<sup>th</sup> out of European ports in terms of tonnage, Dublin comes 14<sup>th</sup>, Liverpool 20<sup>th</sup>, Belfast 22<sup>nd</sup>, Southampton 24<sup>th</sup>, Bilbao 27<sup>th</sup>, Lisboa 40<sup>th</sup>, Leixões 42<sup>nd</sup>, and Nantes-Saint-Nazaire 49<sup>th</sup> <sup>41</sup>.

In spite of their relatively small size, these ports are nonetheless part of an infrastructure that is distributed very evenly along the Atlantic seaboard at a whole. All the NUTS 2 coastal regions have some kind of port infrastructure. As a result, there are real opportunities for the development of intra-Atlantic maritime transport, in particular of cargo, in the form of short sea shipping and through the creation of ‘motorways of the sea’<sup>42</sup>. A number of big projects in progress in Atlantic ports, in particular in Bilbao and Sines, may foster the development of short sea shipping and give a new boost to the Atlantic ports. In particular Sines, thanks to its geo-strategic position, optimal natural conditions and the agreement signed with the port of Singapore, can hope to become a large transshipment port for intercontinental trade.

The map entitled «Current coastal traffic routes serving the ports of the Atlantic coast» shows that there is already a potential as regards short sea shipping. It is particularly high in the English Channel and between the British Isles (mainly ro-ro vessels) and between Porto and Lisboa. The traffic is however still slight between the north and south of the Atlantic coast and towards the other European Regions.

### ***Few air transport links within the Atlantic Area (see map 18)***

Air transport within the Atlantic Area, like the other networks, gives priority to links with the ‘pentagon of capitals’ or transatlantic links, over interregional links. Connections between the Atlantic regions are given very mediocre treatment, as can be seen by the very limited number of scheduled flights. The Atlantic seaboard is well endowed, however, with a total of 218 airports, even though, overall, very few appear at the top of European classifications: only Dublin (8<sup>th</sup> position) and Manchester International (9<sup>th</sup> position) are among the European Union’s top 15 airports<sup>43</sup>. The main European hubs remain all outside the Atlantic Area, but the development of low cost airlines could help to boost new sites in the coming years. These are already helping to open up some small Atlantic airports (though connections are not always daily). Platforms in the Atlantic regions are therefore being offered new opportunities in the years to come.

Generally speaking, certain regions are very disadvantaged by air transport: the Highlands, southern Portugal, and the northern coast of Spain. Only a few metropolitan regions do well in this respect, by reason of the diversity of their links (Bordeaux, Porto and Lisboa, Dublin, Cardiff, Belfast, and Glasgow).

The analyse of the weekly scheduled flights between airports of the Atlantic Area and between these and airports outside of the area, speaks volumes. The internal links appear weak, imbalanced, and discontinuous compared to external links. There are no strong links between two Atlantic airports in two different countries, apart from those between Dublin and the main UK

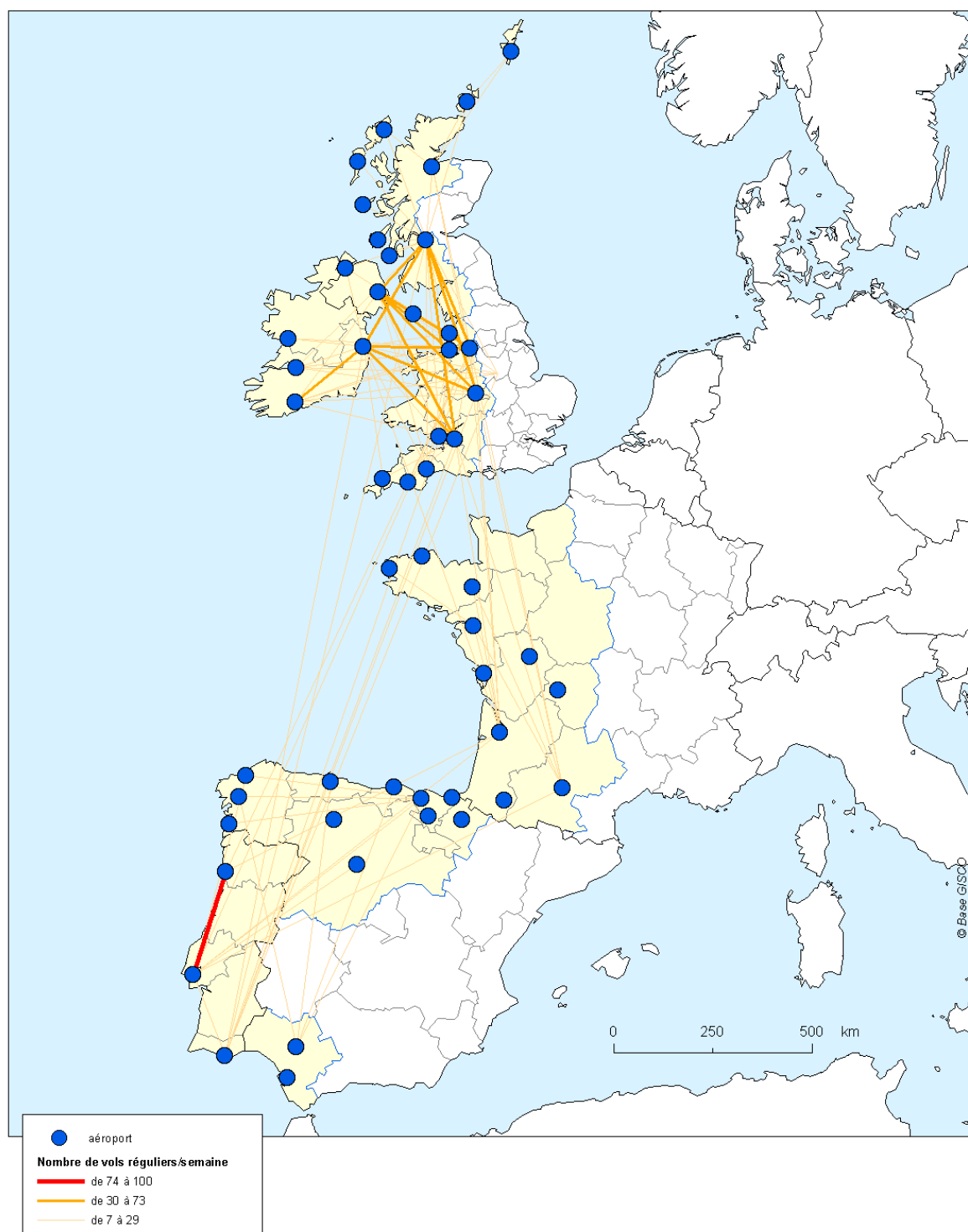
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<sup>41</sup> Classification supplied by ISEMAR (*Institut Supérieur d’Economie Maritime* – Higher Institute of Marine Economy) Saint-Nazaire

<sup>42</sup> This expression refers to a direct and scheduled link between two ports.

<sup>43</sup> Classification according to passenger numbers (source Eurostat, 2001)

**Map 18: Number of scheduled flights between the Atlantic Area airports**



Source : CRPM

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airports. Links become statistically significant only between the three main Portuguese airports and between the main British airports. The question may be asked moreover whether this observation does not in fact rather reflect the shortcomings of terrestrial transport (notably rail).

In sum, only a small number of airports have links with other Atlantic cities outside their own country. These are essentially the airports of some of the Atlantic metropolitan regions, to be more precise Lisboa, Porto, Toulouse, Bordeaux, Birmingham, Manchester and Dublin. Connections between the other metropolitan regions and other Atlantic cities remain poor, like Toulouse, Sevilla, Oviedo, Bilbao or Nantes.

### **3.6. The environment and the maritime dimension: vital assets for the Atlantic Areas' (see map 19)**

#### ***The environment in the Atlantic regions: a development issue***

Before even tackling the issue of the environment in the Atlantic regions, the importance of the relationship between polycentrism and sustainable development should be mentioned. Our hypothesis is that, all other things being equal, polycentric development is the best way of achieving sustainable development, if only because it should help reduce the external negative effects resulting from the over-concentration of people and activities (e.g. pollution, deterioration and overcrowding of areas and networks, uncontrolled property booms, etc.) which can be observed in monocentric areas, while at the same time reducing cost premiums, including environmental ones arising due to the marginalisation of areas which have been abandoned or are suffering from desertification. Furthermore, environmental protection efforts can themselves promote innovation and boost employment and competitiveness in relatively less-developed regions. Furthermore, environmental protection can itself be considered as being a specific non-transferable resource which should be exploited in territorial projects of a polycentric nature. Lastly, the prevention and control of major natural hazards such as fires, drought, coastal erosion and flooding is vital to prevent them from having an impact on regions' development prospects. For all of these reasons, the close link between environmental issues and territorial development projects of a polycentric nature should be taken into account<sup>44</sup>. This is no less the case for the Atlantic Area.

The diversity and quality of the environment is undeniably a factor of attractiveness for Atlantic regions, but this does mean that local or widespread ecological problems do not exist. The aim here is not to draw up a detailed list of these problems, as this would no doubt require a multidisciplinary study at least as big as the ASDP report itself. We do not have a sufficiently homogenous database to enable systematic comparisons for the Atlantic Area as a whole, and the ESPON 1.4.1 report, which will be the first systematic study on the subject at European level, has still not been published. For these reasons, we will draw on the conclusions of the Study of Prospects in the Atlantic Regions published by the EU's European Commission ten years ago, for which the observations remain broadly up to date. These will be topped up by data from the ESPON 1.3.1 and 1.3.2 reports, which have just been published and deal respectively with natural and technological hazards and the management of the natural heritage<sup>45</sup>. It should be

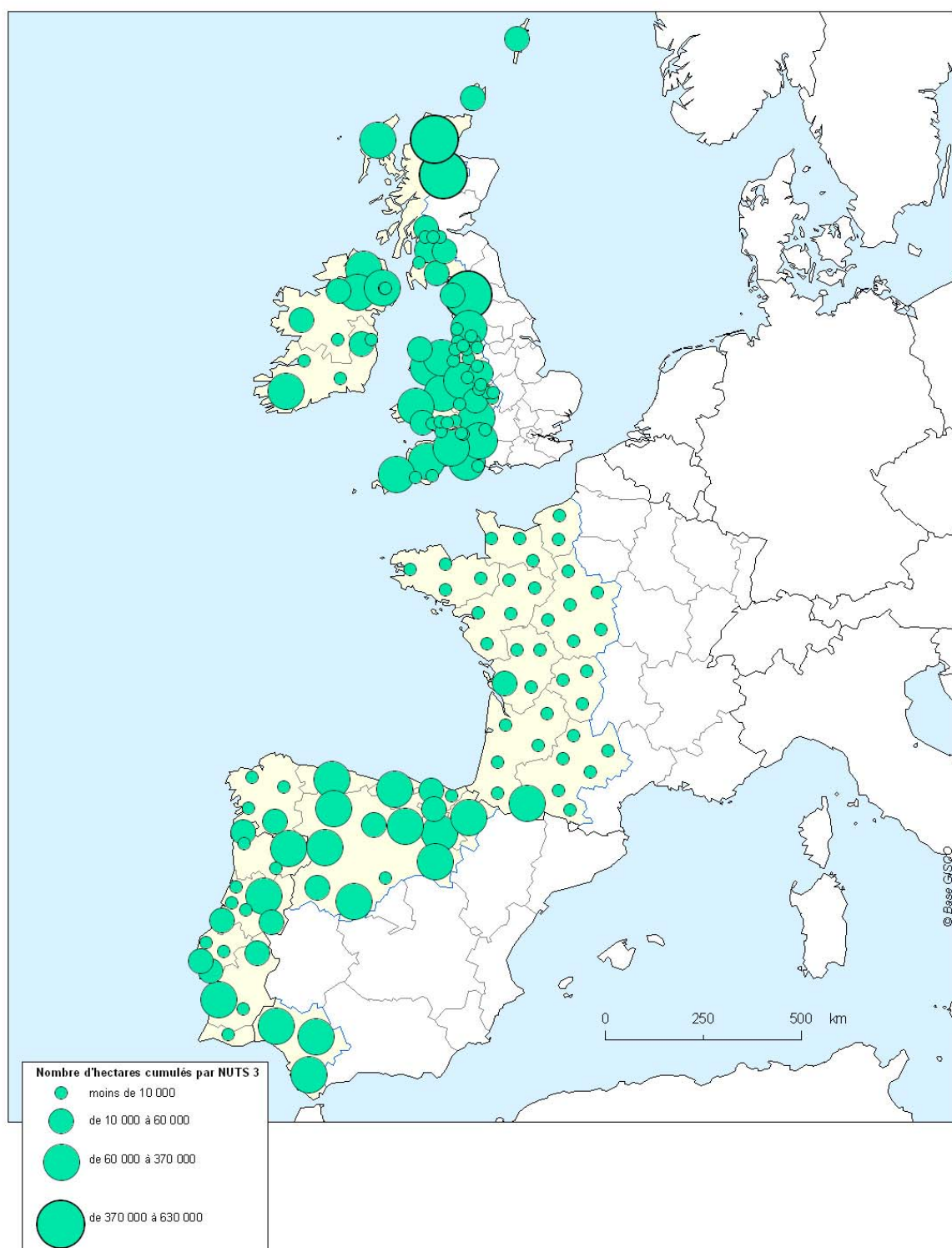
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<sup>44</sup> However, it should clearly be noted that polycentric development, if it is not accompanied by good management of mobility flows with efficient public transport networks, can also give rise to greater environmental problems (CO<sub>2</sub> and particle emissions, the greenhouse effect, etc.) resulting from increased individual mobility.

<sup>45</sup> Espon project 1.3.1 (Third interim report): *The spatial effects and management of natural and technological hazards in general and in relation to climate change*, March 2004. Website: [www.espon.lu](http://www.espon.lu)  
Espon Project 1.3.2: *Territorial trends of the management of the natural heritage* – 2005. Website: [www.espon.lu](http://www.espon.lu)



**Map 19: Protected areas: highly contrasting situations in the Atlantic Area**



Source : European Topic Centre on Nature Protection and Biodiversity. Date of delivery: 08/02/2005

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stated up front that one of the inherent difficulties of exploiting the data generated by the ESPON work is due to the fact that the Atlantic biogeographical region, which is defined according to criteria based on the degree of ecological consistency, does not correspond to the Atlantic Area defined by Interreg<sup>46</sup>.

As we said earlier, we believe that this chapter, however incomplete, is necessary because all development strategies must take account of the environment if they are to promote sustainability, as recommended by the Göteborg strategy. Also, the quality of the environment underpins other competitiveness criteria (in the wide sense of the term), as advocated by the Lisboa strategy. Besides, and above all, environmental protection offers vast potential in terms of interregional cooperation in the Atlantic Area, as we will see in the last part of the report.

The relationship between the environment and development is always complex. In the specific case of the Atlantic Area, certain weaknesses in terms of economic development can turn out to be major assets at an environmental level. In turn, the exploitation of economic assets no doubt requires more environmental caution because ecological risks also affect socio-economic dynamics. So, the wide occurrence of natural areas in several Atlantic regions is the down side of the absence of significant urban concentration. In view of the overcrowding of the Mediterranean coast and central European regions, the Atlantic seaboard may be able respond more easily to the growing demand for a good quality of life. From this point of view, areas with low population densities are well placed to exploit the environment for economic and social ends, although they must constantly bear the need for nature conservation in mind. On the other hand, some of the coastline's most dynamic areas (e.g. estuaries) must revitalise their natural environment: this is a prerequisite to the success of their economic restructuring. Far from being in contradiction to one another, the protection of the environment and economic expansion are part of a systemic and interdependent approach, in the Atlantic Area as elsewhere. What is more, the protection of the natural environment should not be perceived in a purely defensive manner, but should be considered as something through which economic development and innovation can be achieved, notably in the agriculture, tourism and maritime sectors. We should add that a high-quality environment is also a factor of attractiveness, notably as far as highly qualified categories of the population are concerned. Their presence in an area is also a major factor determining decisions on where to locate new firms.

Aside from the objective need to protect the environment, one should also bear in mind the fact that environmental considerations are increasingly at the heart of European policies, further to the adoption of the Göteborg strategy and the Water Framework Directive, and even the development of a strategy for protecting the marine environment. This is another reason why the ASDP should take account of environmental issues.

Environmental pressures which deserve more specific attention in Atlantic regions include the consequences of increased urbanisation in coastal areas, the concentration of industrial activities in fragile areas such as estuaries, the intensification of agriculture, the development of industrial and agricultural wastelands, the specific problems affecting wetlands and their biodiversity, and the increased number of maritime hazards, which people are more aware about since the Prestige disaster in 2002.

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<sup>46</sup> The Atlantic biogeographical region covers the entirety of Ireland, the United Kingdom, Belgium and the Netherlands, the northern regions of Germany and Denmark, and almost all of the western half of France. However, it only includes the coastal regions of Spain and just a small stretch of the coast in northern Portugal, down to Porto. The other Iberian regions, including those which are included in the area covered by our study, are included in the Mediterranean biogeographical region.

### *The consequences of increased urbanisation in coastal areas*

To assess the impact of urbanisation on natural areas, the ESPON 1.3.1 report aggregates an indicator of urban pressure with the percentage of areas occupied by natural zones (forests, “open” and non-cultivated spaces, marshland, etc.). In Atlantic regions with the largest expanses of natural areas, representing more than 25% of the territory (namely Scotland, the north of England, Wales, the coast of Aquitaine, almost all of the Iberian NUTS 3 areas), urban pressure is generally moderate. It is only strong or very strong in a limited number of coastal regions in Portugal (all coastal NUTS 3 areas between Lisboa and the northern border) and Spain (the west coast of Galicia and the Basque Country)<sup>47</sup>.

However, in the Atlantic Area as a whole, the increase in density has been particularly rapid in coastal areas (see above), bringing new threats to the stability of the coastline and conservation of natural heritage of interest to tourists. The deterioration of certain coasts affects the landscape in aesthetic and ecological terms. At the same time, it may in the long-run have a negative impact on development linked to the exploitation of assets specific to the coastal fringe. Although there is no widespread over-occupation of coastal areas as a whole, it has to be said that the construction of large property developments on the shoreline, notably in south-western France, Portugal (especially the Algarve) and Andalusia raises new concerns about the protection and biodiversity of the natural areas concerned. Several regions are also suffering from the effects of uncontrolled urban sprawl, which is caused by an increased number of second homes and, in France for example, the considerable growth of city outskirts, where there is an excessive demand for property. These phenomena, especially urban sprawl, particularly affect South-West, the entire French Atlantic coast and the coasts of Cantabria, the Basque Country and the Principality of Asturias. They may in certain cases have a negative impact on agricultural use of excellent quality soils.

Furthermore, the widespread development of natural habitats is reaching into several inland areas, particularly along rivers and big transport routes, as can be seen in the north of Portugal for example.

Pressure from tourism continues to be more specifically concentrated in terms of the areas and seasons (summer) concerned, but, because it is often reflected in speculative increases in property values, there is a trend towards exclusivity. The environmental impact is consequently even greater (deterioration of sand dunes due to people trampling over them – for example along the coasts of the French Atlantic and northern Spain, impact on flora and fauna, increased risks of forest fires, etc.). The intensification of tourism amenities sometimes leads to an excessive increase in building developments, road traffic and waste disposal sites. This has a negative impact on natural coastal areas and makes stronger protection measures necessary. Similarly, sea water quality, especially close to industrial port areas, needs to be closely monitored and improved. Connecting areas to water and sewage treatment networks is still an issue in many regions, though there have been major investments, for example in Ria d’Aveiro in Portugal. Water quality continues to be a major development issue, both for tourism and other marine activities, for example aquaculture, which is becoming increasingly important for regional economies (salmon farms in Scotland, oysters in Poitou-Charentes, etc.). Water quality in seaside resorts is patently essential for developing tourism. Atlantic regions are far from being in a favourable position in this area, although they generally come off well in comparison to other maritime areas, particularly the Mediterranean. The number of “blue flags” awarded to each

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<sup>47</sup> On the other hand, urban pressure is strong in regions with few expanses of natural areas, such as the south of England and north-western France.

region offers an albeit imperfect indicator of the regional situation. While some regions have been given this quality label for a large number of their beaches, such as the Algarve in Portugal (40 beaches were awarded a blue flag in 2004), Galicia in Spain (81 beaches), Pays de la Loire in France (50 beaches), Wales in the United Kingdom (37 beaches) or South-West in Ireland (22 beaches), others, especially the most industrialised and urbanised, such as Haute-Normandie (2 beaches) and the Basque Country (5 beaches), have very few blue flag beaches,<sup>48</sup>.

Air quality is becoming a big issue in the most urbanised areas, especially around estuaries. As with water quality, air quality is globally among the best in Europe, but the level of pollution is much higher in some regions with concentrated industrial activity, such as the eastern coast of Ireland around Dublin, the Basse Seine valley in France, the south of Wales, the Basque Country, Asturias and the metropolitan areas of Lisboa and Porto. Again, estuaries are most vulnerable to this type of pollution, because they play host to heavy industry plants, for example in Glasgow, Cardiff, Le Havre, Nantes, Bordeaux, Lisboa, etc. The concentration of such pollution has an impact on estuary water quality. There is an increasing lack of oxygen, which is made worse by silt plugs with high levels of heavy metals (cadmium, lead, zinc, copper, etc.). This constitutes a real threat and is transforming estuaries into hazardous areas. The problem of estuaries is no doubt one of the most sensitive issues in the Atlantic Area and clearly calls for the introduction of protection measures. This would be a field of interest for exchanges and cooperation between the regions concerned. We are notably thinking about large river estuaries, such as the Seine (the most polluted in Europe, which is the outlet for a catchment area covering 30% of the French population, 40% of the country's economic activity and 50% of its river traffic), the Loire, the Gironde, the Douro and the Tagus. But certain coastal river estuaries are also having serious problems (the Clyde in Scotland, the Charente and the Adour in France, the Bidassoa in Spain, etc.).

The dangers of excessive concentration of people and activities in coastal areas can also be linked to coastal erosion phenomena along some coasts, notably in the Charentes and Landes areas in France and the western coast of the Iberian Peninsula. Receding coastlines, which is known to be partly caused by climate change, makes an integrated coastal zone management policy more necessary than ever. Receding coastlines are most often due to human planning decisions, which disturb sediment transfers along coasts. For example, certain highly urbanised areas along the Portuguese coast in Centro Region are coming under a direct threat from the disappearance of the sand dune barrier removed by a receding coastline, which has been caused in part by developments in the port of Aveiro.

Lastly, some population centres in inland rural areas are purely and simply being abandoned, which is a secondary effect of coastal urbanisation in certain regions. We are notably thinking about the example of Spain, where, according to the *Instituto Nacional de Estadística*, more than 1,700 villages have been totally abandoned in the Atlantic regions. This leads to the disappearance of traditional activities which helped to maintain the ecological balance of the areas concerned. It also lets spaces formerly occupied by traditional agro-pastoral activities become overgrown. As in Portugal, this exodus considerably increases the risk of fires (see above), and it also contributes to the loss of ethnographical heritage (traditional buildings, haylofts, etc.) which might otherwise promote "soft tourism".

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<sup>48</sup> See: <http://www.blueflag.org/blueflag>, and for Portugal: <http://www.abae.pt/bandeira/bandeira.galardoadas04.lista.php>. This indicator is imperfect for drawing up regional comparisons because it is in part determined by the length of regions' sandy coasts. It is also imperfect as far as the awarding procedure is concerned.

### ***Intensification of agriculture: another danger to the environment which needs to be better controlled***

The extension of farmland and intensification of crop farming (especially plots of land which can be farmed mechanically) and livestock production encouraged by the Common Agricultural Policy and national policies have made the Atlantic Area as a whole the biggest agricultural producer in Europe. These factors have also made it one of the most exposed regions to the environmental consequences of such change. In particular, destruction of meadow land and growth in corn silage farming have also made the agricultural landscape more uniform in several French regions, due to the destruction of hedgerows and partial draining of wetlands and marshes. Further south, notably in Portugal, the unsuitability of agrarian structures for intensive and highly-mechanised farming has led to under-exploitation of land and, in many cases, their return to a wild state.

This cultural shift towards more intensive agriculture comes into conflict with the increasingly vital issue of the availability of water resources. The regions of south-western France (Poitou-Charentes, Aquitaine, etc.) are already and increasingly threatened by a sharp fall in their water tables, while all types of crop farming are coming under the almost permanent threat of water stress in all of the Iberian regions.

This having been said, one of the major problems from an environmental protection point of view is organic pollution caused by intensive livestock production in almost all Atlantic regions. Wales, Ireland, the South-West, western France – especially Brittany – and Galicia are the regions most vulnerable to this threat. Intensification of livestock production also causes sharp increases in nitrate levels, which in turn have a major impact on river water quality, especially in France and Ireland. So there is not just a quantitative deficit of water resources, but also a whole set of threats to water quality. It seems that this process, which started later in the Iberian regions, is likely to get worse there too.

Following on from these remarks on the environmental consequences of intensive farming, a similar process is also affecting fisheries, which has a negative impact on the maritime environment: destruction of the seabed, falls in fish stocks, risks of disease outbreaks, etc.

### ***The degradation of non-exploitable and disused land: a new challenge for the Atlantic regions***

The decline and cessation of traditional industrial activities (mining, iron and steel production, manufacture of basic metal products, shipbuilding, heavy chemicals, etc.), which is happening more and more in some regional economies, has created vast brownfield sites. This poses major urban redevelopment problems for regions, which cannot be analysed merely at the level of the sites concerned. Entire sectors of the local economies in Glasgow, Nantes, Bilbao, Gijón and Lisboa have collapsed, leaving behind them industrial wasteland occupying vast spaces with contaminated soil, often alongside highly polluted water, and occupied by dilapidated buildings. Such spaces can only be dealt with through long term rehabilitation schemes. Several Atlantic cities, with help from regional and central government authorities and sometimes the EU, have already launched sometimes prestigious initiatives designed to revitalise their image and make them more attractive on the “global market of regions”. To name but a few examples, initiatives such as Canon’s March in Bristol, the Liverpool Docks, Cardiff Bay with the new Welsh Assembly building, l’île Beaulieu in Nantes, Ria 2000 with the new Guggenheim museum development in Bilbao and the Parque das Nações in Lisboa have been undertaken in this spirit. Considering that many other Atlantic sites of an equivalent or smaller size have adopted similar

strategies, it would no doubt be advantageous to assess the impact of all of these initiatives in order to identify good practices as well as their negative effects (for example in terms of increasing property values).

However, wasteland problems also occur in Atlantic rural areas and regions, because the mechanisation and intensification of agriculture has environmental consequences (removal of hedgerows in western France, urbanisation of agricultural land and forests, as in Portugal, discontinued maintenance of woodland which leads to an increase in forest fires, under-exploitation of plots of land which are difficult to farm mechanically in mountain regions) which must be controlled. Here again, exchanges of good practice are a potential topic for interregional cooperation in the Atlantic regions, which, to a greater or lesser extent, are all confronted with the problem of agricultural decline and its consequences.

#### *A specific characteristic of the Atlantic Area: numerous fragile wetland areas*

As a result of the big ocean tides, the Atlantic seaboard provides a whole range of areas where the sea meets the land, occupying several hundred thousand hectares of marshes, mudflats, water meadows, etc. They offer exceptional biodiversity and encompass ecosystems whose protection, as stated earlier, is a key development issue, if only in terms of the overall attractiveness of the Atlantic Area. These areas have still not been completely identified. To do so would maximise the benefits of the Natura 2000, although efforts should be made to avoid having a negative impact local socio-economic dynamics.

The issue of the enforcement of the Birds and Habitats directives through the development of the Natura 2000 network is not just limited to wetlands and coastal areas. It is also clearly evident that rapid enforcement is necessary in this type of area. The ESPON 1.3.2 report highlights the fact that the number of Natura 2000 sites in the Atlantic biogeographical region is still insufficient for preventing reduced biodiversity, to a greater extent than in other big European areas.

We should bear in mind that an inevitable though necessary consequence of coastal urbanisation will be the increasing ascendancy of infrastructure, which will have another negative environmental impact on landscapes and biodiversity by fragmenting habitats.

#### *Increased natural and technological hazards: a new area of action for the Atlantic regions*

The ESPON 1.3.1 report is entirely devoted to natural and technological hazards. Although the analysis covers the entire EU territory, it is possible to draw some conclusions for the Atlantic Area. The report examines a whole range of natural and technical hazards. The first category covers the risks of flooding, drought, forest fires, storms, landslides, earthquakes, volcanic eruptions, extreme precipitation and heatwaves. The second category includes hazards related to nuclear plants, hazardous industrial establishments (especially chemical plants), marine transport, transport of hazardous goods and large dams.

Without going into this document in detail, some important conclusions for the Atlantic Area can be identified.

For most natural hazards, the Atlantic Area as a whole cannot be considered as a high risk region, although, individually, some regions are exposed to fairly high levels of risks. This is the case for flooding hazards in the British regions, especially in England, and those in north-west France.

The risk of drought is highest in the regions of south-west France and the Iberian Peninsula. The probability of earthquakes occurring is average or high in the western Pyrenees and on the Portuguese coast. These hazards are however relatively specific to the regions concerned and probably more relevant to regional and national prevention policies.

However, all of the Atlantic regions are exposed to a high intensity of technological hazards related to oil installations and oil transport. These are a common issue of concern, from Scotland to Portugal. Such hazards are not just linked to the location of oil terminals (which generate maritime traffic and consequently Erika- or Prestige-type oil slick hazards), but also to refineries and other sites concerned with the production and processing of oil. The ESPON 1.3.1 report provides an overview of these sites and demonstrates that certain regions are heavily or very heavily exposed, namely most of the British regions, north-West France (especially the two Normandies, for which the potential hazard level is the highest in the Atlantic Area), the Charentes and Aquitaine coasts, the Cantabrian coast, the western Galician coast, the Lisboa region and coastal Alentejo, etc. The list broadly corresponds to the regions where the degree of economic, social and ecological vulnerability to such hazards is among the highest in the Atlantic Area. This is a potential area for interregional cooperation which would merit further work, because these hazards are shared by most of the Atlantic regions.

Whatever the case may be, the recent precedent of Leça da Palmeira (Porto), where the oil terminal is located directly within a densely populated urban area, shows that the probability of such hazards occurring is far from being low. The accident there caused a serious fire in the urban area as well as water pollution in the marina, which it has still not been possible to reopen.

In sum, a brief look at the hazards mentioned above can explain a certain number of concerns, which the lack of concerted policies makes all the more justifiable, such as:

- The increased imbalance between coastal and inland areas, which will lead to greater urban pressure, especially in the southern Atlantic regions, where the environmental repercussions are already clearly perceptible;
- The deterioration in maritime and continental water quality. This has particularly big consequences, because several regional economies partly depend on activities which require high quality water;
- The increase in agricultural pollution due to ever more intensive farming, principally in the Iberian regions where ecosystems are more fragile and where water resources are more vulnerable. However, in the northern Atlantic regions, principally the British ones, cultural practices are less harmful for the environment;
- The persistence of local pockets of industrial pollution, even though restructuring, which is either complete or well underway across the whole seaboard, makes it possible to hope that they will be eradicated some time in the future;
- An increase in the ecological vulnerability of fragile areas, especially estuaries;
- The escalation of technological risks, notably those linked to maritime oil transport, and perhaps also natural risks, if climate change proves to have consequences on the frequency of extreme natural phenomena (major storms, flooding, etc.).

This non-exhaustive list of environmental concerns calls for a concerted effort covering all public policies, especially regional ones. Environmental protection, which ultimately does more good than damage to social and economic development, can be a fruitful area for joint and shared action by the Atlantic regions.

### ***The maritime dimension: a common and collective development issue***

The sea has greatly affected Europe's geography and history. Since the time of the great maritime discoveries, the ocean has been perceived as a power issue, combining politics, trade, banking and industrial activities.

The ocean has a global geopolitical dimension and reflects a complex set of major economic, industrial, scientific and technological issues.

The Atlantic Area is located at the heart of the world's major maritime routes. Historical ties with Africa and South America, which are ongoing, have involved Atlantic regions in the major transcontinental trade flows. The current advance of globalisation can only strengthen the Atlantic regions' maritime position in the organisation of transcontinental flows between Europe, the two Americas and Western Africa.

Coastal areas are among the most dynamic places in the world, insofar as they act as a magnet for people and activities.

The maritime dimension does not just affect coastal areas, but also provides a lifeline for neighbouring regions, which are broadly dependent on its activities. All of the Atlantic regions are therefore clearly concerned.

The maritime dimension covers numerous fields:

- Demography, with the attractiveness of coastal areas being a world phenomenon;
- Activities: fishing and mariculture, yachting industries and shipbuilding, tourism, research and innovation;
- The environment, etc.

The notion of the maritime dimension covers various indicators relating to traditional (fishing and mariculture), industrial, recreational or research-related maritime activities. The coastal economy is not just maritime in the strict sense of the term. Coastal areas play host to activities which are specific to them because they are dependent on the sea's presence. To harmonise the indicators for the various countries, we have selected a limited set of data.

### ***Traditional maritime activities in decline***

#### ***A – Fishing***

Fishing is a traditional activity with historical connotations, especially for the Iberian Peninsula regions. In Portugal, fishing is an integral part of life and society. Entire communities are



dependent on it, particularly in disadvantaged coastal regions. Although many people work in the industry in France and the United Kingdom, it appears to be less important in cultural terms.

Atlantic Area regions occupy an important place in the EU fishing industry<sup>49</sup>, for many reasons. They are located alongside maritime areas which are among the largest EU fisheries, namely off the west of Scotland and Ireland, the Celtic Sea, the Bay of Biscay, the Gulf of Cádiz, etc. The fishing industry is characterised by the dominance of traditional deep-sea fishing, although there are also industrial centres which specialise in more distant fisheries (Vigo in Galicia, Lorient in Brittany, Aveiro in Portugal's Centro Region, Killybegs in Ireland, etc.), not to mention the centres of the new tropical tuna fishing industry (Bermeo in the Basque Country, Concarneau in Brittany) and the ports where vessels depart for the neighbouring African coasts (Sesimbra, Peniche, Huelva and Barbate).

In spite of the existence of processing centres, fishing itself is the predominant activity, and the seaboard as a whole is being affected by problems of access to resources. Conflicts regarding access are all the more intense because they involve the fleets of the most important European maritime fishing regions in terms of the number of people working in the industry and traditions, for example Galicia, Brittany, the west of Scotland, the Basque Country, south-west England and Andalusia. The importance of aquaculture should also be mentioned: mussels in Galicia, oysters in Poitou-Charentes and Basse-Normandie, and salmon in the Scottish Highlands and west of Ireland.

The seaboard continues into the North Atlantic with the Azores-based fishing industry, and the Canaries, which is a large international fishing centre.

Ireland has 20 fishing ports, accounting for a total catch of 215,000 tonnes. Some ports are dominant in terms of value, with Killybegs alone accounting for 25% of the value of national fish landings.

6,609 people work in the UK fishing industry, in 36 ports.

Spain has more than 130 fishing ports (82 in Galice) and a workforce of 30,700 fishermen. This data is however underestimated because data for the regions of Cantabria and Andalusia is not available.

There are 18,000 fishermen in the French Atlantic regions, who are specialised in small-scale fishing and shellfish farming, which accounted for 68 % of the national fishing workforce in 2002.

The number of people working in the fishing and aquaculture industry is decreasing in the various countries. In France, the trend is strongest in Pays de la Loire, where there was an eleven percent fall between 1997 and 2002.

The industry is therefore vulnerable for several reasons. Fishing continues to account for only a small part of the economy. In Portugal, fishing and sea product processing activities account for 1% of GDP. Employment is declining in all of the countries and suffers from a negative image.

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<sup>49</sup> Source : Pesca Info, 2004

Furthermore, this activity is largely dependent on decisions taken at European and world level. The fleet has been affected by the impact of successive multiannual guidance programmes (MAGPs) and there is an ongoing trend towards a reduction in capacity as a result of the Common Fisheries Policy. The industry is also threatened by increasing scarcity of resources. The European Commission's green paper on the industry's future, published in 2001, emphasises the current failure to develop a policy for exploiting this resource sustainably.

Current catches in France and Portugal are insufficient for meeting consumer demand, so imports are necessary.

### *B – Atlantic maritime transport<sup>50</sup>*

Maritime transport is an important issue for competitiveness and the environment. In Europe, it accounts for 41% of the volume of intra-EU goods transport. It is developing rapidly: a 27% increase was recorded between 1990 and 1998, compared with an increase of 35 % for road transport.

The Atlantic regions are traversed by two main trade flows: north-south, which is characterised by the increasing quantity of transit traffic, and west-east, towards the heart of Europe and the enlargement countries. They have an increasing amount of road traffic, which is likely to double by 2010. This raises questions about planning decision priorities.

Maritime transport can be an alternative to road transport. However, the development of sea motorways as recommended by the European Commission will require land links to good port installations.

The Atlantic Area has more than 60 ports, which together account for more than 664 tonnes of traffic. As a comparison, Rotterdam and Antwerp, the main European hubs, respectively account for more than 300m and 130m tonnes of traffic.

The Atlantic ports cater for 70 short-sea shipping routes, including both transport container and roll-on/roll-off traffic. Frequency of departures is nonetheless limited (from daily to weekly), with the exception of local routes.

Traffic going to or coming from the Northern Range, which is mostly concentrated around the ports of Antwerp and Rotterdam, is the heaviest, and raises maritime safety problems in the English Channel and North Sea.

Atlantic maritime traffic is divided between different types of flows:

#### *Containerisation*

This traffic benefits Channel and North Sea ports (Felixstowe, Antwerp, Rotterdam, Bremen, Hamburg) nearest to the hinterlands with the greatest economic output, as well as southern ports in the Mediterranean (Algeciras, Gioia Tauro, Taranto and Malta), which have considerably developed transshipment activities.

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<sup>50</sup> Source: Etat et contexte des trafics des ports atlantiques, ISEMAR, IAAT, February 2004

The Atlantic Area does not yet have any major hubs, which are big transshipment ports providing interconnections with the main routes. Sines in Portugal and the future deepwater port of Ferrol in Galicia are however hoping to occupy this market. Container terminals along the Atlantic façade are of course relatively small, but they cater to regional needs and consequently fulfil their role entirely.

The positioning of Atlantic ports should also be considered in terms of their specific national characteristics:

- The port of Dublin is very dynamic due to the general development of the country. Container traffic is increasing significantly.
- Southampton (1.2m TEUs<sup>51</sup>) benefits from its status as the first port affected by major east-west services.
- Liverpool is holding on to its market, notably with North America.
- In Spain, Bilbao, which is the first port of entry for containers in the northern part of Spain (455,000 TEUs in 2002), doubled its traffic between 1993 and 2000. Since then, its activity in this sector has stabilised. It is likely to maintain its role as a junction between the big northern European ports and Spain. Vigo, with 160,000 TEUs in 2002, is the second biggest Spanish container port.
- In Portugal, container activity is centred on the ports of the two biggest cities, Lisboa (487,000 TEUs in 2002) and Porto-Leixoes (more than 300,000 TEUs).
- In the French Atlantic Area, four ports have container activities: Le Havre, the country's second biggest national port after Marseille, Nantes-Saint-Nazaire and, to a lesser extent, Bordeaux and Brest. Traffic at Nantes-Saint-Nazaire is based on two types of activities: regular routes and feeding<sup>52</sup>. Brest is specialised in refrigerated container traffic for local agro-food industries. Lastly, La Rochelle is trying to get involved in the Atlantic Area feeding system.

### *Roll-on/roll-off freight*

Roll-on/roll-off transport is mostly dependent on island routes, and includes both passenger ferries and roll-on/roll-off transshipment vessels for freight.

Traffic around the Channel Islands in the northern part of the Atlantic Area is highly developed. This is not the case in Spain and Portugal, due to the remoteness of islands. Seasonal services run between Great Britain and Santander and Bilbao.

There are several roll-on/roll-off routes between Ireland and the United Kingdom because they are islands. The Channel tunnel has partly modified the balance between different types of traffic, but market growth has made it possible to maintain overall volume.

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<sup>51</sup> TEUs: twenty-feet equivalent units

<sup>52</sup> feeding: feeding traffic enables a hub port to forward containerised goods loaded from a mother vessel to secondary ports or, conversely, to feed the mother vessel, which cannot enter secondary ports (Source: Atlas transmanche).

Regular roll-on/roll-off services exist between Irish, French and British ports.

Transport of new cars between southern countries and those of the north and the British Isles accounts for much European roll-on/roll-off traffic. This industrial market is organised by manufacturers. Few ports cater for it in the Atlantic Area, and those that do are located close to the major areas of production (Dublin and Cork in Ireland, Bristol and Southampton in the United Kingdom, Setúbal in Portugal, Vigo, Pasajes, Santander and Bilbao in Spain, and Le Havre and Nantes-Saint-Nazaire in France). This activity is highly dependent on economic decision-makers outside the Atlantic Area, and plans to offshore production could have consequences on the market.

### *Bulk traffic*

Nantes-Saint-Nazaire, Bilbao, Liverpool and Sines account for most refinery output and oil shipping. They are far behind the specialised site of Milford Haven.

Gijón in Spain and Port Talbot in the United Kingdom are specialised in the transport of iron and steel products and are highly dependent on market fluctuations.

The ports of western France have an agricultural specialisation, notably in cereals and livestock. This activity is highly dependent on world markets. In Spain, dry bulk ports have relatively limited geographical hinterlands, but they account for 50 to 60 % of dry bulk in Spain.

### *Sectors with great potential for the future*

#### *A – Tourism*

Tourism is a major sector of the coastal economy. In France, it has a turnover 12 times bigger than fishing, 15 times bigger than ports and 8 times bigger than the merchant navy.

In Portugal, tourism's direct share of GDP in 2003 was 5%, and as high as 10% if one takes account of the knock-on effects for other sectors. The sector accounts for 8% of total employment. 12 million tourists visit every year. Seaside tourism is most developed, although the industry is starting to diversify. Algarve is the region whose economy depends most on tourism.

In Ireland, revenue from tourism increased by 86% between 1993 and 1999. Coastal areas are not the cornerstone of tourism. The two main regions in terms of employment and accommodation are Dublin and South West (respectively 31% and 29 % of tourism-related jobs and 20 and 25 % of accommodation).

The situation varies widely from one country to another. In the United Kingdom, the coast does not offer the most attraction. The most visited regions are Scotland and London, with the capital being the first destination for tourists. In France, however, Atlantic tourism is growing constantly. The Atlantic regions have become attractive on their own merits, and have not had to undertake major public or private planning ventures as in the Mediterranean. However, the number of second homes has grown rapidly and continuously since 1990.

Coastal tourism areas are however confronted with a certain number of difficulties, such as the highly seasonal nature of tourism coupled a relatively limited variety in the types of

accommodation, and a low level of foreign tourism due in part to average quality amenities. An increasing spatial concentration of accommodation capacity has also been observed, and tourist resorts have had a magnet effect, which generates geographical imbalances and major conflicts of use. This situation is particularly true in France and in Portugal.

Atlantic tourism is family-oriented, in spite of there being some famous old seaside resorts. New tourism products are also developing along the coast, such as thalassotherapy and balneotherapy, which was introduced as early as the 19th century in France, and golf, which is widespread across the country.

Coast-related cultural activities and remarkable heritage sites are also cornerstones of coastal tourism.

### *B – Yachting and water sports*

Yachting and water sports are an offshoot of tourism and a very dynamic economic activity.

The Atlantic Area has many yachting sites and ports on the whole nearly 300 facilities. The French Atlantic Area accounts for 39 % of the national market.

This activity is likely to develop in several countries, but it will probably also generate major coastal planning difficulties.

Yacht building is a very dynamic activity, and is particularly developed in France, which is ranked second in the world after the United States. It is principally located in the Atlantic *départements* (Morbihan, Vendée, Charente-Maritime), and has a turnover of more than 750m, of which 60% comes from exports. It provides more than 14,000 jobs in the Atlantic Area, divided between nearly 1,500 firms. The Atlantic Area plays host to the most prestigious yachting names<sup>53</sup>: Bénétteau (the world leader in yacht building), Fountaine Pajot (the world leader in cruising catamarans), Zodiac (the world leader in rubber boats, with a 39 % market share), etc. The industry depends on a network of suppliers, sub-contractors and specialised service enterprises, as well as research centres.

In Portugal, shipbuilding is located mainly on the coast, and there are 37 sites.

The Atlantic coast is also renowned for prestigious maritime events such as the Vendée Globe, the Rum Route Race, the Single-handed Trans-Atlantic Race, etc.

### *C – Shipbuilding and repair*

The shipbuilding industry has been undergoing change for more than thirty years. European countries have been marginalised from the container ship, bulk carrier and oil tanker market, now concentrated in South Korea, which has become the biggest producer in the world. EU countries account for scarcely 30% of the world's merchant navy. Asian shipyard order books accounted for 70% of world orders in 1999, as opposed to only 20% for European shipyards.

France, however, has maintained competitive know-how in sectors with high value-added, for example cruise liners, especially at the Nantes-Saint-Nazaire shipyards, which is the biggest

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<sup>53</sup> Source : L'industrie nautique en France atlantique, France Atlantique, 2004

cruise liner production centre in Europe. Shipbuilding is being restructured in Portugal, and the big national shipyards are being replaced by a network of small production units.

In spite of these assets, Europe's technological position in the maritime industries is getting weaker. EU countries' global share in European patents for marine technologies decreased by nearly a quarter between 1990 and 1996.

#### *D – Research*

Marine research in EU countries is ranked second in the world behind the United States. It relies on an oceanographic fleet, scientific submarines and remarkably efficient ocean observation satellites.

However, marine science and technologies have to cope with some big challenges<sup>54</sup>, including the need for integrated and multidisciplinary programmes, ever-closer links between science, technology and economic science, greater targeting of resources and increased awareness about the need to apply the principles of “precaution” and “sustainability” to the exploitation of marine resources.

#### *The importance of the coastal research sector in the Atlantic regions*

A quantitative assessment is difficult because the sector is being restructured.

The United Kingdom has two main oceanographic research centres and two world-famous centres specialised in fisheries, mariculture and environmental protection.

In France<sup>55</sup>, the main universities of coastal cities have courses and units specialised in maritime issues. Examples include the Brest European Maritime Institute of Higher Education (IUEM), the Nantes Sea and Coast Centre (PML), which brings together maritime research laboratories, and the La Rochelle Coastal Institute. Alongside them, special elite universities such as the Ecole polytechnique and the Ecole centrale play a major role. The *réseau bleu* (blue network) in Brittany and Pays de la Loire brings together bodies responsible for coastal issues, such as the National School of Telecommunications (ENST) in Brittany, the European Research Centre for Algae (CEVA), the French Institute for Marine Research and Exploitation. Large organisations such as IFREMER and the Bureau for Geological and Mining Research (BRGM) are also part of this scientific community.

Portugal has a marine research sector similar to France's. It has 11 higher education establishments focusing on science, technology, maritime transport management and coastal tourism, and two specific research centres: IMAR, the Institute of Marine Research, which brings together ten universities, and INIAP, the Agriculture and Fisheries Research Institute, which is organised into three centres and linked to the Ministry of Agriculture, Rural Development and Fisheries.

Spain has four oceanographic centres (La Coruña, Vigo, Gijón and Santander) and a centre specialised in marine biology in Cádiz.

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<sup>54</sup> Source: Les grands défis des sciences et technologies marines, ACCES n°11, p.118

<sup>55</sup> Source: Prospective maritime et littorale atlantique 2020, rapport des groupes paritaires Etat-Régions, dossier de synthèse, December 2000

Since 1998, Portugal has been urging Europe to adopt a marine research and technology policy and provide the necessary resources for implementing it. It acknowledges the need to create networks between national bodies in the EU, to encourage synergies between them. Better knowledge of all maritime activities is needed if we are to acquire a coherent vision of the issues and adopt *coordinated strategies*<sup>56</sup>.

*A major mobilisation of Atlantic economic and political stakeholders regarding the maritime dimension*

The Atlantic Area regions have galvanised their efforts regarding maritime issues.

Working priorities defined by the Atlantic regions include integrated coastal zone management, maritime safety, the development of maritime transport and discussions on the introduction of sea motorways. Furthermore, work to identify the Atlantic Areas' strengths and weaknesses, which was carried out prior to the determination of the Interreg IIIB Programme's priorities, put maritime issues at the heart of the debate. Three of the four priorities directly concern or are related to maritime issues, namely sustainable transport (especially maritime transport), economic activities related to the regions' identity and coastal zone management.

It should be noted that many projects concerning maritime issues have been submitted to Interreg IIIB, including SSSA (short-sea shipping), Ocipesca (the Atlantic observatory for fisheries and mariculture), SAL (rehabilitation of Atlantic salt marshes), Medachs (analysis and introduction of methods for protecting and repairing works of art along the Atlantic coast), Erocips (emergency response to coastal oil, chemical and inert pollution from shipping), ATMOS (creation of short-sea shipping routes and development of the sea motorway concept), etc.

Furthermore, strategic debates on coastal planning go back many years in some countries. In 2004 a French inter-ministerial spatial planning and development committee (CIADT) set out four main objectives and operational strands for a sustainable coastal development policy: to guarantee a quality environment, to accompany demographic growth and contain pressures from property developments, to develop diversified economies adapted to the needs of local people and the specific circumstances of coastal areas, and to promote their identity.

In Portugal, a national plan has set out five strategic objectives for the oceans, which are believed to underpin identity. This plan consists of ensuring the protection of the oceans and promoting sustainable development of economic activities related to the sea, such as maritime transport, fishing- and aquaculture-related activities, tourism, shipbuilding, marine biotechnologies, marine-related industries, renewable energies, defence and the development of a modern institutional framework for managing the oceans. The importance the country attaches to these issues was strongly emphasised by the 1998 universal exhibition in Lisboa, which had the sea and management of the oceans as the central theme.

Lastly, it should be noted the headquarters of the European Maritime Safety Agency, which was set up after the Erika disaster, is hosted by the Atlantic Area in Lisboa.

In sum, despite the fact that each country has its own particular characteristics, the proximity of the ocean clearly generates major issues and resources which are shared by most Atlantic regions, although there are also common problems, such as the restructuring of the fishing and

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<sup>56</sup> Source: La dimension maritime et ses perspectives, ACCES n°11

shipbuilding industry. Inland regions, especially the Spanish and French ones, are themselves directly concerned by the development of the maritime dimension, if only as far as transport and activities generated by the expansion of ports is concerned (establishment of warehousing and distribution centres, sub-contracting of the shipbuilding industry, etc.). The national workshops also demonstrated that the sea undoubtedly constitutes one of the most promising topics for cooperation between regions and cities. They also stressed – and this should be said forcefully – that the maritime dimension is in no way a cooperation theme which should be limited to coastal areas. The development of the maritime economy implies a need for solidarity between coastal areas and inland ones, and calls for better coordination between coastal cities and ports and their hinterlands, if only to develop essential logistics platforms there, for example.

The development of a strategy for the Atlantic Area can therefore not be undertaken without taking account of the maritime dimension.

### **3.7. Evaluation of territorial disparities and potential in the regional environment of metropolitan and intermediate urban systems using a general index: the Relative Development Index (RDI) (see map 20)**

In order to obtain a more general overview of the differences in development levels that exist between Atlantic regions, and also to get a better insight into the economic environment of first and second rank urban systems, we have developed a Relative Development Index for each NUTS 3 area. Using a single index, it makes it possible to include several economic development variables, and to calculate, as a percentage, each region's level of development in relation to an imaginary reference area which suffers from every handicap possible, in other words the lowest levels observed in the whole of the Atlantic Area for each of the variables taken into account<sup>57</sup>. In this case, bearing in mind the available sources, we have decided to use eight demographic, economic and social variables, namely: population density, the degree of specialisation in services, the degree of specialisation in agriculture (considered in decreasing order), the number of company headquarters, labour productivity, the unemployment rate, per capita GDP, and the rate of GDP growth between 1991 and 2001.

#### *Measuring development disparities and grading regions using the RDI*

The results for each of the 168 NUTS 3 areas are also presented in detail in the annexes. Once we had regrouped the regions into four specific categories according to their index rating (very strong, strong, average and weak), they were drawn up as an accompanying map. The method of processing the results is of interest because it makes it possible to highlight the divisions between the Atlantic Area's large regional groupings, which can be identified according to their economic performance levels with regard to the eight variables selected. It also makes it easier to visualise the regional economic environment of metropolitan and intermediate systems, and to see the extent to which their expansion benefits from a strong regional potential or not.

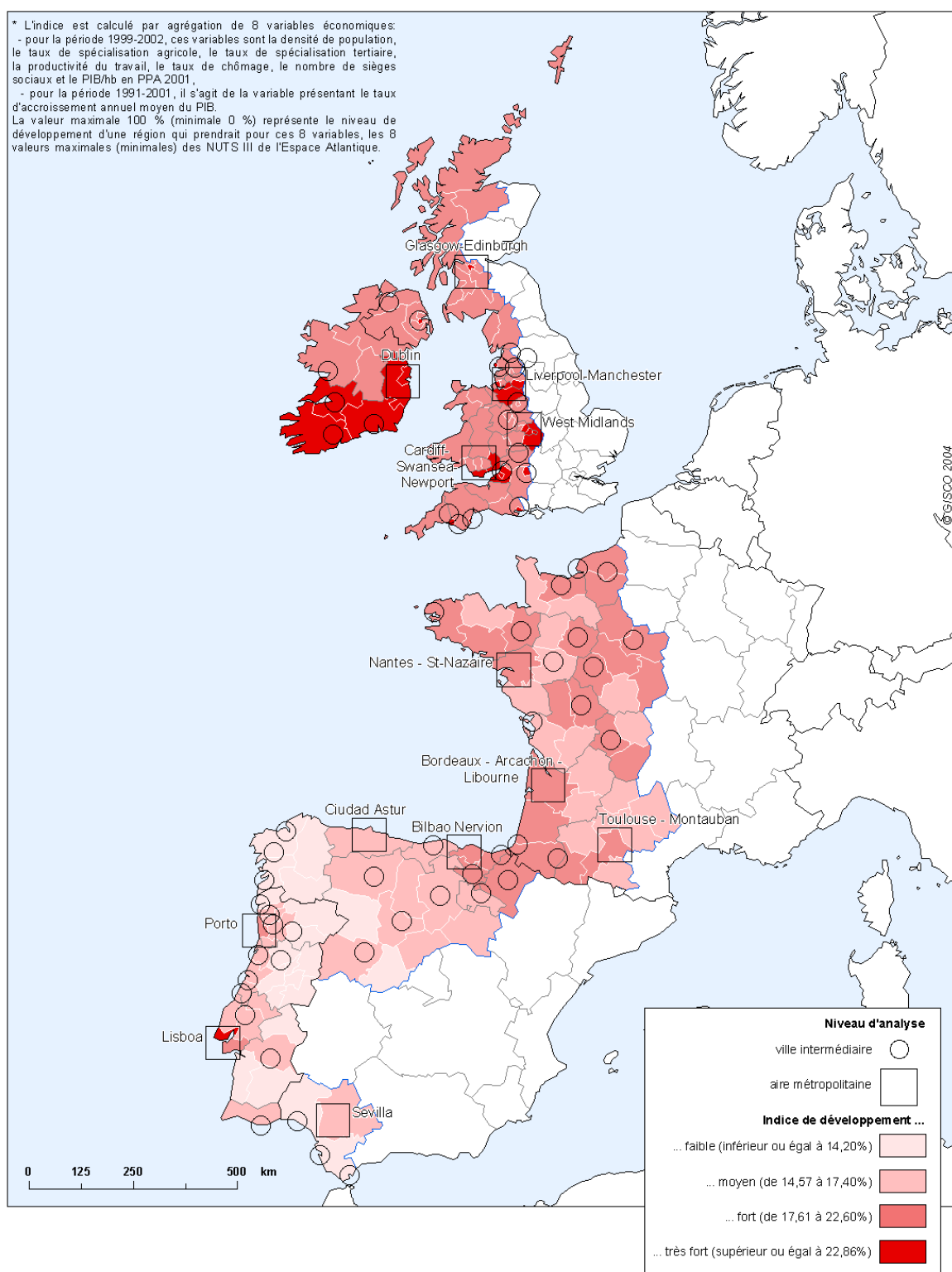
It must be stressed that there is not necessarily a strong correlation between RDI and the area of influence of the towns and cities analysed in section 3.2. Major cities with a large area of influence and high national and international profile can be found within depressed regional areas (and vice versa, as for example in Ireland). This corresponds to situations where the city

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<sup>57</sup> Accordingly, a result of x% will mean that the area's development level is considered to be "above" a percentage of x% in relation to that of the imaginary region of reference which has the lowest levels observed for each of the variables taken into account in the calculation.



**Map 20 : Relative economic Development Index of Atlantic NUTS 3 areas**



completely polarises its environment by “sucking in” all of its dynamic forces. On another scale, this is the case of Toulouse in the Midi-Pyrénées Region: a metropolis with some one million inhabitants, European capital of the aeronautical industry and one of the main French research centres, situated in a rather weak regional environment (Midi-Pyrénées) in which majority of the *départements* are in category 3. Other similar examples could be mentioned.

This map also makes it possible to identify a first group of 25 NUTS 3 areas whose IDR is very strong at over 22.86%. The highest is 29.88% for the City of Bristol. This group includes regions which one can consider as being the most advanced in terms of the eight indicators used. The group of regions listed is very concentrated in spatial terms, representing 14.97% of the whole of the Atlantic Area. It principally concerns areas where there are potentially strong metropolitan regions or intermediate systems, and it mainly includes British regions. The region of Belfast in Northern Ireland belongs to this first category. The others include Glasgow in Scotland, Liverpool and Greater Manchester South in the North-West, Birmingham in the West Midlands, and Cardiff in Wales. The other British regions belonging to this first group include some intermediate systems such as Blackpool, Cheshire CC, Halton and Warrington in the North West, Solihul and Coventry in the West Midlands, Monmouthshire and Newport in Wales, and the City of Bristol, North and North-East Somerset, Gloucestershire and Torbay in the South West. Five NUTS areas in the Republic of Ireland belong to this group (representing 71% of Irish territory), including Dublin and the southern NUTS areas. Lastly, for the rest of the Atlantic Area, there is only one non-British region, which is Grande Lisboa in Portugal.

This is not enough to conclude however that there is a simple polarisation between very strong British regions and weaker continental ones, because the gaps between the regions at the bottom of group 1 and those at the top of group 2 are minimal, and the analysis should not be too affected by thresholds.

The second group includes some NUTS 3 areas whose relative development index can be considered as being high, between 17.61% and 22.6%. Together, the areas cover 47.90% of the Atlantic Area, and they are principally located in Ireland, the United Kingdom and France. It includes all UK and Irish NUTS 3 areas not belonging to the previous group of regions with a very high index rating. The distribution of these regions in France is fragmented, occupying 55% of the French Atlantic Area. Three regional sub-groups can clearly be distinguished in this group:

- One in the west, including the Loire Atlantique département and the Brittany NUTS 3 area, with the exception of the Côtes d’Armor,
- A continuous group bringing together NUTS 3 areas from the north and the centre of the Atlantic Area, from Haute-Normandie to the north of Limousin, and including the northern half of Poitou-Charentes; this group is made up of areas which are still largely under the influence of Paris,
- And finally, in the south-west, there is an Aquitaine and Pyrenean group, adjoining Pais Vasco and Navarra in Spain to form a relatively homogenous cross-border group.

Pais Vasco and Navarra are furthermore the only Spanish regions belonging to group 2. In Portugal, there are also only two NUTS 3 areas, which are Grande Porto and Peninsula de Setubal.

The third group includes regions with an average RDI rating of between 14.57% and 17.4%. There is a big gap between it and the level of the regions in the two previous groups. This group occupies 24.55% of the Atlantic Area. There are no British regions. In France, there is a vertical division of the French Atlantic Area, going from the départements of Calvados in the north-west to Tarn et Garonne and Aveyron in the south. These are predominantly rural regions and are suffering from a process of impoverishment. They are stuck between the more dynamic coastal areas and the areas close to the Paris region, which benefit the most from knock-on effects from the capital's dynamism. This is explained not just by population patterns in the area, but also by the performance of these regions in terms of relatively average productivity, unemployment and economic wealth. In Spain, a dozen provinces – which are primarily Castilian or along the northern coast – are in this third group. The 11 provinces belonging to this group represent almost half the Spanish Atlantic Area (47.82%). In Portugal, there is one inland district, Evora, and almost all of the coastal districts.

The fourth group, which is made up of regions where the index rating is the lowest – between 10.22% et 14.2% – covers 12.57% of the Atlantic Area and is concentrated primarily in the Iberian Peninsula. It includes all of the provinces of Galicia, Andalucia (with the exception of Sevilla, which is in group 3), Avilà and Zamora in Castilla y Leon, and all of the inland Portuguese districts (with the exception of Evora, which is in group 3), as well as two strips of coast (Minho-Lima in the north and coastal Alentejo in the south).

In Spain, the various areas appear much less advanced in the light of the eight aggregate variables in the RDI. They represent 34.78% of the national Atlantic Area. In Portugal, they represent 45.43%, and a clear coastal/inland division can be observed. Almost all coastal areas are in the first three groups, whereas the inland NUTS are much weaker.

In sum, this measurement of the Atlantic Area's internal regional disparities reveals a more or less decreasing RDI gradient from the British north to the Iberian south. Furthermore, the spatial analysis of relative development levels has highlighted the existence of areas with metropolitan and/or intermediate urban systems whose potential economic influence is more important either at regional or national level, or at Atlantic Area level. This can notably be seen through the inclusion of the majority of NUTS areas with a metropolitan region in the first group.

A simple distinction can be made between three geographic zones, among which there are clear development disparities:

- The first zone, which is that of the most advanced regions, is comprised of the north of the Atlantic Area, including the United Kingdom and Ireland, whose NUTS areas are mostly in the first two groups;
- A second intermediate zone, which includes the French area and Spanish Noreste, whose NUTS areas are in the second or third groups;
- The third geographic zone of regions which are most in difficulty, including the remaining part of the Spanish Atlantic Area and Portugal, which is primarily characterised by areas belonging to the third or fourth group.

Beyond these regional disparities, there is a more subtle scale of marked contrasts within each zone identified above. These contrasts seem to be more due to national economic conditions.

- For the northern zone of the Atlantic Area, it may be noted that there is an opposition between the north-west of Ireland and the rest of the country. This observation should nevertheless be moderated owing to the nature of the data taken into account when calculating the RDI, which masks asymmetries which undoubtedly exist on a more detailed scale, particularly those referring to employment specialisation. However, it can be seen that the general economic performances are higher for the south and east of Ireland compared to Border, Midland and Western Region in the Republic of Ireland and to a lesser extent to Northern Ireland. With regard to the remainder of the United Kingdom, the calculation of the RDI has helped to highlight economically dynamic areas, with relatively strong urban systems (metropolises and/or intermediate cities). Moreover, the RDI underlines a very high level of territorial uniformity in terms of economic development for the majority of British NUTS areas. General speaking, the British entity gives the best performances for the whole range of indicators taken into account in the RDI. This explains the even positioning of most UK areas in the first two categories.

- The situation of the intermediate zone, mainly French, appears more contrasted. Calculation of the RDI has highlighted more disparate areas, which underlines some asymmetries in development, although development levels are quite similar and are included in the second and third groups. Without going so far as to highlight an east-west disparity for this national area, it is easy to pick out the French areas located in the “arid diagonal”<sup>58</sup>, whose position in terms of development reflects contrasted results both in relation to settlement as well as economic performance and specialisation. The Spanish part (Basque Country and Navarra) of this intermediate zone offers economic performances which can be compared to that of the French systems as a whole and, in particular, rather similar to the Region of Aquitaine.

- The third geographical zone grouping together Spain and Portugal has disparities in economic development disparities that are more geographically concentrated around Centro in Spain and Norte in Portugal on the one hand, and around the Sur in Spain and Alentejo in Portugal. Areas with strong economic potentiality are more dispersed compared to the other geographical zones, and more concentrated along the Portuguese coast and in the centre-east part of Spain.

The identification of these three zones therefore makes it apparent that there are a certain number of territorial divisions in the Atlantic Area and highlights the existence of regional sub-areas with higher development potential. If one works on the hypothesis that the development of polycentrism at European level is dependent on the strengthening of regions that are capable of acting as a counterweight to the Pentagon, it can be concluded from our analysis that some Atlantic regions have a more favourable initial economic situation in this regard. This concerns the British regions, Ireland, the “wider Brittany”, including Loire Atlantique, the western perimeter of the Parisian region, the whole cross-border Aquitaine/Pais Vasco area, and finally Portuguese metropolitan areas.

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<sup>58</sup> In France, this expression describes the most depressed areas and the ones most under threat from desertification. They are geographically located along the south-west / north-east diagonal between the Pyrenees and the Ardennes.

### 3.8. Summary of the results of the strategic evaluation of the Atlantic Area (see map 21)

This section aims to provide a concise appraisal of the elements of strategic analysis of the Atlantic Area.

The common feature of the preceding analysis is that they reveal the heterogeneous nature of the Atlantic Area, which is made up of variations in development levels, wide differences in competitive advantage, discontinuities and the absence of links. These are not just due to physical barriers or political borders. Thence, on the “globalized market of territories”, Atlantic regions and cities far from enjoy the same potential and there is already a feeling that there are territories “which are winning” and others “which are losing”. There is room for debate here about the real possibility of making the Atlantic Area a ZGEI (Zone of Global Economic Integration) in accordance with the ESDP project. The elements we have been able to bring together, which are certainly insufficient, do not augur well for a rapid reduction of internal imbalances in this area and even less the short-term disappearance of phenomena related to thresholds, discontinuities and variations.

It is furthermore probably for this reason that during the national workshops a certain scepticism about the polycentric development of the whole of the Atlantic Area was seen explicitly in certain participants. At “macro” scale, we still cannot assert that the Atlantic Area will be in a position to form one of the integrated territorial components of a polycentric Europe. Consequently, the question is, which scale should take priority in the development of polycentrism within the Atlantic Area? Should priority be given to the macro scale (the European continent), the meso scale (nations) or the micro scale (towns and nations), to use the typology proposed by the ESPON 111 report?

Coming back to the preceding analysis, a clear typology of the Atlantic sub-areas emerges. Their boundaries do not necessarily match pre-existing political and administrative limits. The observation that there is an Atlantic Area which is segmented into sub-areas with widely differing trends and that face different development issues as a result of their profoundly dissimilar structural characteristics (economic, social, cultural etc.), leads us to believe that priority should be given to developing polycentrism at *meso* and *micro* levels, in other words on the basis of each of the sub-areas for which it seems easier to define better integrated development strategies (these strategies can be designed and developed within the context of inter-regional and interurban co-operation).

We do not believe that this goes against the idea that the Atlantic Area as a whole can also be considered as an area within Europe whose regions share a certain number of interests and common problems calling for a set of common responses that are to be jointly implemented.

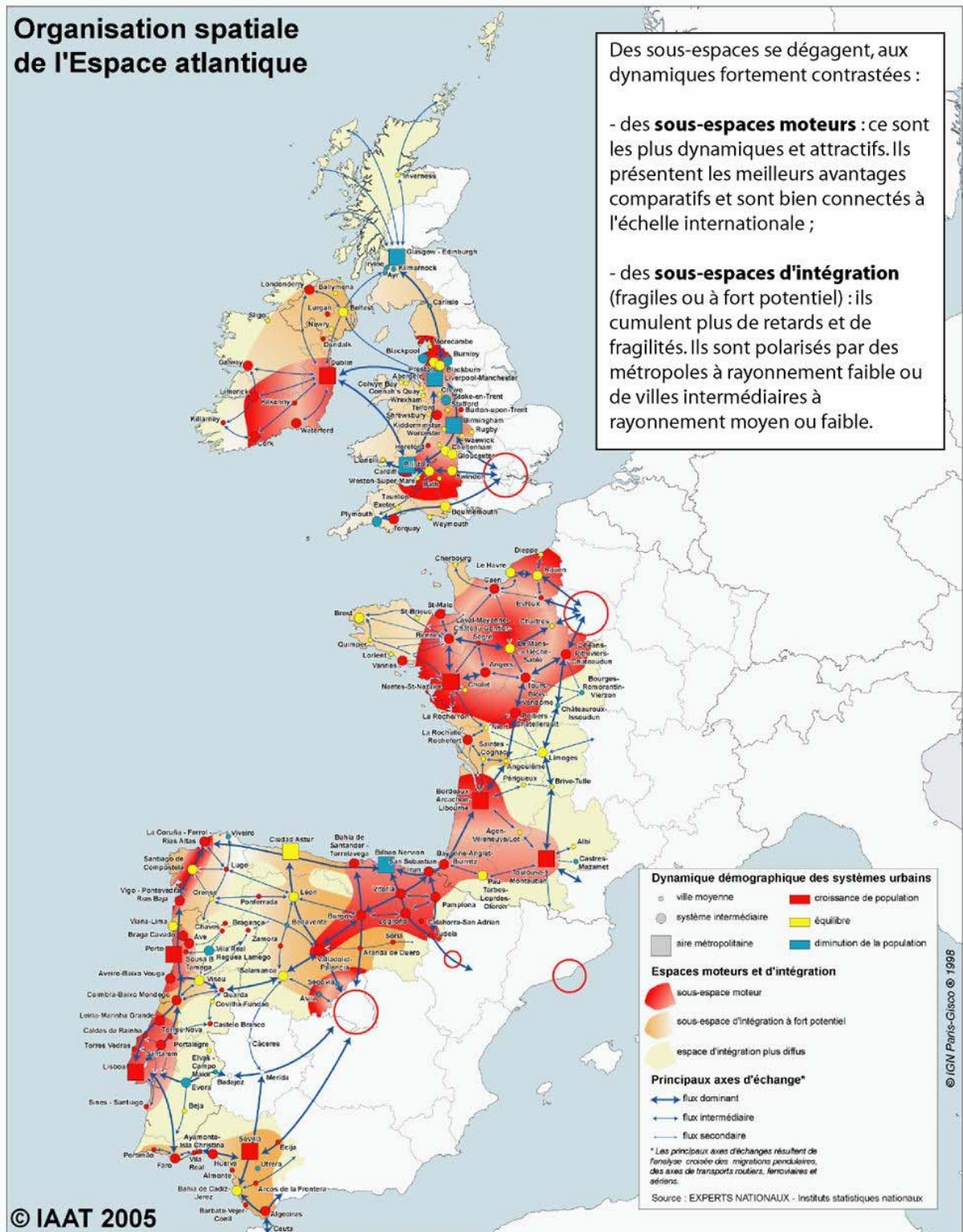
On first analysis, an initial dichotomy emerges from the combined reading of the maps, between what we shall call the “**motor sub-areas**” and the “**integration sub-areas**”. The development of a polycentric project for the Atlantic seaboard cannot allow itself to ignore this distinction, which, as we will see later on, itself entails the need for other distinctions to be made.

“**Motor**” **sub-areas** can be considered as the most dynamic areas displaying the best comparative advantages within the Atlantic Area, given however that none of them can rival with Pentagon regions in terms of development potential. Bearing in mind the elements of analysis brought together in the intermediate reports, these sub-areas can be defined by an accumulation

of favourable factors. They are areas characterised either by the presence of metropolises with extensive or average influence or by “bunches” of intermediate cities with extensive influence and strong development trends, which are likely to offer major networking opportunities (or if such opportunities are limited, this is more due to difficulties of a social or political nature than of technical or economic origin).

Map 21: Spatial organisation of the Atlantic Area

## Organisation spatiale de l'Espace atlantique



The existence of these metropolitan systems or intermediate towns with extensive influence guarantees a wide supply of high-level services and a high knowledge potential (presence of large universities and research centres etc.). At the same time, these sub-areas belong to regions that already have a high level of development, as shown by a relatively high or very high development index. They have specific resources, notably linked to the proximity of the sea, whose exploitability has already been proven.

These areas also show a good level of internal and external connectivity. They have strong international connectivity, including intercontinental, air and even maritime links, and because in reality they enjoy a degree of morphological polycentrism, they also have extensively interconnected urban systems, as is clearly illustrated by the distance-time road maps and the summary overview map shown above. These sub-areas are further distinguished by their fairly extensive appeal, attracting both people (definitive migrations and tourism) and capital (Foreign Direct Investment). They play host to the head offices of a great many large companies, although to a lesser extent than the Pentagon regions. Finally, the productive make-up of these sub-areas prevents excessive over-specialisation and consequently they have a level of diversification that softens the blow of any necessary changes or restructuring caused by globalisation.

If we work on the assumption that the development of polycentrism at European level is dependent on the strengthening of territories qualified to act as counterweights to the Pentagon, our analysis concludes that certain Atlantic regions have a more favourable initial situation – “motor sub-areas” can be identified on this basis.

All in all, the “motor sub-areas” must not be considered for what they may not necessarily be, that is, homogenous functional sub-areas whose internal relations (between towns, regions etc) are already supposedly very strong. On the other hand, they are territories belonging to one or more States, who currently already share similarities in terms of their level of and potential for development (high density, diversified activities with a high technological content, top-level research centres, good internal connectivity, rich high-level services offer, significant level of RDI and a stronger urban framework).

By default, one might consider that “**integration sub-areas**”, in other words, regions that need to be included in a more balanced development of the Atlantic Area because they lag very far behind and suffer from an accumulation of handicaps, comprise any regions that do not belong to the previous “motor sub-areas” category. The common factors between all “integration sub-areas” are that their focal points are metropolises with little influence (if they exist at all) or intermediate cities with average or little influence, they have fewer possibilities for setting up networks, their RDI is lower, they are less well connected especially in terms of international links, they remain marginalized from the main exchange flows and are widely dependent on outside centres of demand or a totally exogenous supply of services. Furthermore, they very often suffer from excessive over-specialisation in lower added value, high labour intensive activities with little technological content, leaving them more directly exposed to external crises. It is also a fact that these sub-areas are often subject to negative demographic growth trends.

We should point out at once that the extent of these difficulties varies greatly from one “integration sub-area” to another. Some of them have greater inherent weaknesses than others, particularly caused by a more serious phenomenon of depopulation and geographical isolation. This is why we need to draw a further distinction between, on the one hand those “integration sub-areas” that might seriously envisage the prospect of catching up and becoming involved with



“motor sub-areas” and which might hope to become nodes in a polycentric Atlantic Area, and on the other hand, those areas that are more isolated and are currently being marginalized because of their demographic and economic decline. When conducting our analysis, it is therefore vital to differentiate between “**high-potential integration sub-areas**” and “**weak integration sub-areas**”. When all is said and done, when defining a development strategy for the Atlantic Area, ultimately we are faced with three territorial situations as opposed to a simple confrontation between strong and weak regions.

Consequently, the question of how to clearly identify these three categories of “sub-areas” must be asked, since it is impossible to apply the same strategy uniformly to all three. It does not seem possible or even really necessary to us to trace the precise outline of the sub-areas belonging to each of the three categories. We believe that our analyses and maps identify them sufficiently, given the fact that the boundaries separating them are blurred and they remain highly interwoven. In other words, it is not impossible for these areas to overlap in various places.

### **3.8.1 Motor sub-areas**

#### *Greater Dublin and the south east of the Republic of Ireland*

This sub-area is located within the Republic of Ireland but has an important axis of development towards Belfast in Northern Ireland. It has wide international links with the UK, the centre of Europe and the United States owing to some strong economic ties with these areas, facilitated by an international airport (Dublin), and major ports (Dublin, Rosslare and Cork). Furthermore, it meets all of the criteria set out above: presence of a rapidly expanding metropolis with extensive influence, a relatively high level of development, positive demographic and economic trends, and a good level of international connections despite being isolated as an island, etc.

#### *The Cardiff-Bristol-West Midlands-Liverpool-Manchester axis*

This sub-area occupies the southern, primarily English half of the British Atlantic Area and includes three of the most important metropolises in the Atlantic Area. Although the population of all these metropolises is declining, their regional economic environment is undergoing complete renewal, their RDI is strong and they have the advantage of being well-diversified (no excessive over-specialisation). In addition to this, there is a high degree of international connectivity and a very high density of internal connections. Finally, its closeness to London, Dublin and even Paris via the Channel Tunnel, gives this area real comparative advantages (connection to the main international networks, easy access to exclusive services offered by Britain’s capital, etc.). It should be noted that the southeast of this sub-area is also the western periphery of London’s Metropolitan area. This area extends the Pentagon northwards; we should not forget that London is one of the peaks of the Pentagon, in the same way that Paris is.

#### *The North-western part of the French Atlantic Area*

A third, less “compact” sub-area, whose edges are more blurred, encompasses the regions to the west of Paris. It only has one metropolis with average influence (Nantes-Saint-Nazaire) but on the other hand has a considerable number of intermediate cities with extensive influence (Caen, Le Havre, Rouen, Orleans, Tours, Angers, Le Mans and Rennes). We might even include Poitiers, which although it is more modestly sized, has a level of infrastructure and urban functions equivalent to that of larger regional capitals. The level of internal connections and exchanges in this sub-area is high, creating favourable material conditions for the development of

relational polycentrism via the networking of all or some of these cities, for example in the Val de Loire, from Orleans to Nantes, or in the Basse-Seine between Rouen and Le Havre, extending to Caen, or even between Nantes and Rennes and the Brittany area. This wider composite region does not have the same level of international connections as the previous two sub-areas (despite good links with the Paris airports), but does enjoy the benefits of the Atlantic TGV which links most of the cities concerned to Paris in less than two hours (and sometimes, as is the case for Tours and Le Mans, in less than one hour) and links them directly with Roissy-Charles De Gaulle airport. A great many of these cities also offer daily flights to London. This sub-area will also benefit in the long term from the knock-on effect of the extension of the port at Le Havre, one of Europe's leading ports. Here again, the demographic and economic indicators are on the whole high. The strengthening of links and co-operation between the urban systems belonging to this area could, by making them operate more independently with regard to Paris, play a major role in the construction of a polycentric model.

#### *The cross-border area between the North-East of Spain and the South-West of France*

The fourth motor sub-area is specific in that its context is transnational and because of its cross-border status, it is probably true to say that it has a lesser degree of coherence and integration than the previous three sub-areas. It includes part of southwest France on one side, and part of northern Spain on the other. The French part includes the whole of the area polarised by two metropolises, Bordeaux and Toulouse, who have more of a tendency towards rivalry than complementarity, and is still very heterogeneous internally. Its southern half is also structured by the urban systems of Pau-Tarbes-Lourdes-Oloron and Bayonne-Anglet-Biarritz and it is linked to the Spanish part by the Basque coast corridor. For all this, the very existence of the "Basque Eurocity", consisting of Bayonne-Anglet-Biarritz, Hendaye, Irun and San-Sebastián proves that there is a strong potential for cross-border co-operation.

As for the Spanish part of this fourth motor sub-area, it covers a vast dynamic area which includes not only the Basque Country, but also Navarre, La Rioja (which in terms of development and urban integration levels forms a unit with the Basque province of Alava) and a series of extensions along structuring axes, especially the Cantabria axis as far as Santander in the Oviedo direction, until La Coruña, the Vitoria-Miranda-Burgos-Palencia-Valladolid axis in Castile, and the Ebre Valley in the Saragosse direction. Although there can be no doubt about the incomplete integration of this French-Spanish area at the current time, it does bring together dynamic regions that have considerable potential for development.

The summary overview map shows that the border is no longer an obstacle to intense exchange flows, despite a situation of congestion on its coastal corridor and despite the lack of permeability of the Pyrenees. On both sides of the border, this sub-area is also home to dynamic intermediate and medium-sized cities and systems; in particular those in France that benefit from Airbus subcontracts and those in Spain that, after painful industrial restructuring (particularly in the metallurgy industry), are seeing positive recovery trends, such as Santander, Logroño, Pamplona, Burgos and a large number of medium-sized towns in Cantabria, La Rioja, Navarre and even Castilla y León, (along the historic Way of Saint James and the Vitoria – Valladolid axis. The main traffic corridors between Portugal and France, via Valladolid, Irun and Bordeaux, and between Madrid and Paris, via Burgos and Irun, run across the area, and so it now plays an important pivotal role between the Iberian Peninsula, France and as far as the centre of Europe. Furthermore, its Spanish part also acts as an area of transition between the Atlantic and the Mediterranean thanks to the Ebre corridor. The axis linking the Autonomous Community of La Rioja to Saragosse and as far as Barcelona is also a highly dynamic extension.

Moreover, even if there would appear to be less international connectivity in this sub-area than in the previous cases, internal connections again facilitate the networking possibilities for its cities, since on both sides of the border it is strongly inter-meshed. But the particular situation of Toulouse should also be noted, since it only maintains strong relations with the other components of this sub-area when it comes to the various subcontracting activities of the aeronautics industry. With the exception of this industry, Toulouse is otherwise an internationally integrated metropolis (via the aeronautics industry), has strong links with Paris and Barcelona, and is a strong focal point in its region (Midi-Pyrenees). On the other hand, its relations with Aquitaine and the Spanish Atlantic region do not quite live up to the expectations that its geographical position might imply ...

It is patently obvious that the components of this French-Spanish area not fully linked and do not offer indisputable continuity. In certain respects we would be justified in talking about a spatial concentration of several “motor” centres (the Bordeaux region, Toulouse, the North of Spain, to which we might add the French Basque country). In spite of this however, we consider that on the scale of the area under study - the Atlantic Area - these French and Spanish regions, whose weight and strategic role in Europe are increasingly assertive, form a unique motor sub-area.

### *The west Iberian Atlantic Area*

The final sub-area is the linear configuration clearly visible along the western coast of the Iberian Peninsula, even if, here again, there do appear to be certain elements of discontinuity. It mainly covers the Lisboa-Porto-Braga axis, extending northwards to the Galician urban axis of Vigo-Santiago de Compostela-La Coruña and southwards towards Sines and the Algarve. Here we are faced with a “corridor” phenomenon, within which the flows are getting stronger and stronger, even if certain stretches such as the interstitial area between Leiria and Aveiro or the Minho-Lima area seem to be less well integrated.

The development of this corridor is mostly “pulled” by its main metropolis, Lisboa, which has today achieved international metropolis status, but also by the rapid expansion of coastal cities including those in Galicia, which look more out to sea than they do inland. This sub-area suffers from being relatively far away from the barycentre of Europe but on the other hand, it does have strong links with other continents, notably Latin America and Portuguese-speaking Africa, from the Galician ports and Lisboa airport (which along with Madrid is a major hub for connecting flights between Europe and Latin America). The Portuguese-Galician corridor is also penalised by a relative lack of economic diversification. In spite of these weaknesses however, the area is enjoying both economic and demographic growth, which no doubt conceals the perverse effects of uncontrolled coastal development and the delicate environmental consequences of urban pressure on the coastal area, but does enable it to be included in the list of motor sub-areas. Once again, we can see the geo-economic basis for greater trans-regional and cross-border co-operation. The latter will be facilitated by the redevelopment of the “Ruta de la Plata”, historic route which links Gijon to Sevilla along the Portuguese border. This route can act as a flow “collector”, interconnecting the Spanish and Portuguese communication networks.

### **3.8.2 Integration sub-areas**

In-between these five areas there are large interstitial spaces where the population density and relative level of development are lower, the distance-time relationship between cities is much greater, there are fewer international connections, cities have less influence and the economy is much less diversified. In these interstitial spaces we find the two sub-categories of areas that we

mentioned earlier; on the one hand there are the “high-potential integration sub-areas”, for which there are reasonably feasible prospects of forging links with “motor sub-areas”, and on the other hand there are “weak integration sub-areas”<sup>59</sup>.

### *High-potential integration sub-areas*

High potential integration sub-areas are certainly disadvantaged by the absence of any metropolises with extensive influence, but as focal points, they do still have more isolated and less powerful metropolises or bunches of major intermediate cities. They also suffer from a less dynamic regional environment, less national and international accessibility and overall are ultimately less attractive. However, it is easy to put forward the theory that these sub-areas, by diversifying their activities in a complementary and if possible cooperative fashion, by improving their land and air connections and acquiring the major infrastructures they are currently lacking (especially inside their metropolises but also in their main intermediate cities) could easily join the “motor sub-areas” and thereby contribute to correcting territorial imbalances inside the Atlantic Area. This category includes:

- All British and Irish regions which have not already been included in the “motor sub-areas”, no doubt with the exception of the most northern part of Scotland, the Scottish Islands and the west coast of Ireland.
- In France, the Cotentin peninsula, especially Brittany, which already has a good level of connectivity and a high RDI, and the Charentes.
- In Spain, the coastal zones of the northwest coast beyond Santander, which can look to major centres such as Ciudad Astur for support. This agglomeration is at the junction of the Cantabrian axis, the “Ruta de la Plata” and the “Way of Saint James”. It later could in turn increase its influence once it has dealt fully with the consequences of its industrial restructuring and, as is planned in the medium term, completely linked up with Northern Spain’s rapid rail and road networks. A considerable part of Castile also falls within the high potential category, especially as a result of the dynamic nature of a number of its intermediate and medium-sized towns (León, Salamanca, Aranda del Duero, Soria), while the southern area of this region in the immediate vicinity of Madrid has the same level of dynamism as the main motor sub-areas, thanks to the expansion of the capital’s metropolitan area (in particular the provinces of Avila and Segovia)<sup>60</sup>. A structuring axis linking Ciudad Astur with Madrid also runs across this high potential integration sub-area.
- Despite having a difficult employment situation, Andalusia in the south of the Atlantic Iberian area, linked with the Algarve region of Portugal, can also aspire to a place in this category of high potential regions, thanks to its quick connections with Madrid, the maritime possibilities offered by its ports (Cadiz, Algeciras...) and Faro international airport in Portugal (which deals with more traffic than Porto airport!).

### *Weak integration sub-areas*

“Weak integration sub-areas” are largely indistinguishable from what we initially identified as barely structured rural areas. Essentially included in this category are generally inland and under-

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<sup>59</sup> In orange and yellow respectively on the map

<sup>60</sup> This is why this southern part of Castile is shown in red on the map, like the motor sub-areas.

equipped areas with very low densities, deprived of any level 1 or level 2 urban systems, and with only poor connections, if any, to major networks. While a number of more or less isolated territories matching these characteristics can be found within motor sub-systems in each of the five countries (including in the form of more or less important enclaves), the important thing to stress here is that there is a strong concentration of such territories in western Ireland, Scotland, South-West France (especially the south-eastern part of Poitou-Charentes, the eastern and southern parts of Limousin, the northern half of Midi-Pyrénées and the Ariège) and in inland Iberian areas (notably the whole of the Iberian “Raia” area, on both sides of the Portuguese-Spanish border and in the mountainous areas of Asturias, and inland Galicia).

These areas are all characterised by declining rural activity and significant impoverishment resulting especially from a process of depopulation that little can really make up for, apart from the partial introduction of recreational and residential activities. As for Portugal itself, it has to be admitted that its entire northern and central inland areas, and virtually the whole of Alentejo match this description.

All in all, taking this typology of Atlantic sub-areas into consideration just serves to illustrate and clarify our analysis of the phenomena of territorial divisions, discontinuity and imbalance. The structures and trends differ to such an extent between the three categories of sub-areas that the spontaneous development scenario that can be sketched on the basis of this observation leaves little room for any possible reversal of trends.

#### 4. ATLANTIC INTER-REGIONAL CO-OPERATION

We completed our strategic analysis of the Atlantic Area with an investigation into inter-regional co-operation recently conducted in the Atlantic Area under the Interreg III B programme. Our analysis shows that the Atlantic regions adhere firmly to inter-regional co-operation; a great many projects have been carried out or are ongoing, and this number has increased considerably compared with the previous period (as has the budget allowance, from 13 to 109 million euros...).

	Interreg IIC	Interreg IIIB (phase 1)	Interreg III B (phases 1 and 2)
<b>Number of projects</b>	<b>47</b>	<b>58</b>	<b>74 (75)</b>
<b>Number of partners</b>	<b>128</b>	<b>394</b>	<b>525</b>
Including Ireland	13	30	40
United Kingdom	19	47	65
France	30	107	158
Spain	34	126	151
Portugal	32	84	111
<b>Average number of partners per project</b>	<b>3</b>	<b>7</b>	<b>7</b>

It can be noted that the level of investment is greater from the French, Spanish and Portuguese than it is from the British or Irish, even if the latter are taking a more active part in the Interreg IIIB programme than in the Interreg IIC programme. There has also been a substantial rise in the average number of partners, (the number has doubled), marking projects of a greater magnitude than before.

Priority	Number of projects	Total sum for the projects	Average sum per project
Priority A – Polycentric structuring of the area and development of Centres of Excellence	24	41 798 755	1 741 615
Priority B – The development of sustainable transport systems to ensure mobility within the Atlantic Area and to improve access to the information society	17	61 933 697	3 643 159
Priority C – Promoting the environment, the sustainable management of economic activities and natural resources	18	46 146 120	2 563 673
Priority D – Strengthening and promoting the Atlantic identity in a global context	16	32 263 222	2 016 451
<b>TOTAL</b>	<b>75</b>	<b>182 141 794</b>	<b>2 428 557</b>

The previous table shows the distribution of the projects as per the priorities of the Interreg IIIB programme. We can see that priority A has a greater concentration of projects, which incidentally have the smallest average budget. Like the ASDP, these projects are very often made up of studies and research projects. Conversely, priority B brings together a relatively small number of projects, but with a higher average budget (more than double the budget of priority A); these projects concern transport and lead to the construction of infrastructures.

In conclusion, it can be seen that the Interreg III B co-operation projects enjoy budgets that can be relatively high (several million euros), but projects that require the least investment (studies etc.) are more frequent.

The quantitative analysis of the co-operation has been completed with a more qualitative analysis, carried out via a set of case studies so as to identify the impact of inter-regional cooperation and its added value with regard to the development of the Atlantic regions and the structuring of the Atlantic seaboard. The table below presents the projects that formed the subject of a case study.

Name of the project	Summary description of the project	Number of partners and participating countries	Project start and end dates
<b>Priority A – Polycentric structuring of the area and development of centres of excellence</b>			
REVITA	Atlantic strategy for revitalising industrial areas	10 (Spain, Portugal, France, United Kingdom, Ireland)	June 2003 – October 2005
AGRO	Co-operation and valorising the rural heritage	9 (Spain, Portugal, France, Ireland, United Kingdom)	July 2003 – September 2005
LANATURAL	Wool, a natural resource for sustainable development	6 (France, Spain, Portugal)	August 2003 – July 2005
REGINA	Towards the establishment of a sustainable partnership for the regional management of scientific and technological knowledge and innovation in the Atlantic Area.	12 (Spain, France, Portugal, United Kingdom, Ireland)	September 2003 – August 2006
COAST	Organisation for co-operation among the specialised industrial associations in the aeronautics sector on the territorial basis of the Atlantic Area	3 (France, Spain, United Kingdom)	September 2003 – September 2005

<b>Priority B – The development of sustainable transport systems to ensure mobility within the Atlantic Area and to improve access to the information society</b>			
SSSAA	Promotion of short sea shipping in the Atlantic Area	10 (Spain, Portugal, France and United Kingdom)	May 2003 – November 2004
ATMOS	Atlantic Area sea motorways	7 (Spain, Portugal, France and Ireland)	January 2005 – December 2006
EROCIPS	The emergency response to Coastal oil, Chemical and Inert Pollution caused by shipping.	15 (United Kingdom, Spain, France, Portugal)	November 2004 – October 2007
PARTNER	The promotion of accessibility between regional and trans-regional transport networks in Europe.	12 (United Kingdom, France, Ireland, Spain)	November 2004 – October 2007
Specialist task force	Task force on transnational co-operation in maritime safety		May – September 2004
<b>Priority C – Promoting the environment, the sustainable management of economic activities and natural resources</b>			
COASTATLANTIC	Integrated Coastal zone management: towards an Atlantic vision	11 (Spain, Portugal, France, United Kingdom, Ireland)	August 2003 – August 2006
ICREW	Programme to improve coastal and recreational waters in the Atlantic Area	19 (United Kingdom, Spain, Portugal, France and Ireland)	April 2003 – April 2006
VALBIOMAR	Biotechnological Valorisation of marine resources	13 partners (France, Spain, Portugal, United Kingdom)	September 2003 – August 2006
<b>Priority D – Strengthening and promoting the Atlantic identity in a global context</b>			
EURATLANTIC	Project for the common economic promotion of the French, Spanish and Portuguese regions in North America.	15 (France, Spain and Portugal)	January 2005 – December 2007

The following main conclusions have been drawn from the case studies:

- Co-operation is dynamic and varied. The co-operation projects cover many themes, sometimes touching on complex (such as integrated coastal zone management) or sensitive (the definition of viable short sea shipping lines against a backdrop of competition between the ports) topics. These co-operation projects are highly relevant for the Atlantic Area because more often than not, they concern the area's essential issues. We can indeed see that many of the projects analysed in the case studies deal with maritime issues (Valbiomar, SSSAA, ATMOS, COASTATLANTIC, EROCIPS, ICREW and the task force). These projects prove that as an area of co-operation, the Atlantic Ocean is a special case.
- Certain themes or networks call for the co-operation project and its networks to be made long-term, and even for permanent co-operation structures to be created (in the image of certain constituted networks such as the Atlantic Arc Commission and the Conference of the Atlantic Arc Cities). Partnerships can turn out to be particularly long lasting, as shown by the example of the Lanatural project (the second Interreg project, a network of partners that has celebrated ten years of existence and which is growing larger with every project), even when as is sometimes the case, a large number of partners are involved (more than ten, from more than four countries). This can result in a complex situation, often

exacerbated by the financial management of the programme, but in spite of this, networks have managed to settle into place and take their project forwards.

- The partners of the Interreg programme gain from these projects in terms of influence and credibility within their own regional or national context. Not only does this European opening provide them with the opportunity to develop new networks and new development possibilities, but it very often also gives them weight within their regional or national areas as having the power to propose and implement projects.
- This type of project gives “European ambitions” to projects and players in the territory covered by the Atlantic Area. Such impact may be a little intangible with regard to the actual development of the regions and the Atlantic seaboard, but it is still important in terms of identity and for building a feeling of belonging to a supranational area (some partners have admitted that the co-operation project in which they have participated has changed the image they had of their European neighbours and the European Union in general). However, the action of the EU is perceived as being imposed from top to bottom only and the players do not believe they have any power to influence the decisions taken at a higher level (except for a few rare examples of the implementation of European policies).
- We might however regret the poor coordination that sometimes exists between the Interreg projects themselves, and the fact that they are not familiar with one another. Cross-fertilisation between the networks might be particularly propitious.
- Some projects also lack ambition, and consequently, the capacity to become operational. It will be necessary to move on to the next – constructive - phase, rather than staying at the study stage and to “officially” perpetuate certain networks. It might also be regretted that some networks are incomplete, particularly on such important topics as integrated coastal zone management.

Consequently, it would appear necessary for co-operation to be better defined in strategic monitoring and networking terms (a logic of continuing co-operation projects, something that is currently restraining the added value of the projects). Atlantic co-operation must be deepened and better structured if it is to enable true progress (not just quantitative progress) between the transnational inter-regional co-operation programmes (between Interreg IIC and IIIB, and between both the latter and the future objective 3 of the structural funds). These projects are an important foothold for Atlantic inter-regional co-operation, but it needs to improve in terms of strategy, in terms of networking dynamics through the energetic running of co-operation projects and by the perpetuation of existing networks.

The observations made in the previous points provide us with the initial elements of our conclusions as to the feasibility of polycentric development in the Atlantic Area. They can be summed up as follows:

- Bearing in mind the elements already gathered together, the Atlantic Area does not in itself represent a ZGEI in the ESDP sense of the term. Territorial imbalances and differences in the problems encountered lead us to assert that priority should be given to developing polycentrism at the level of sub-areas in need of improved structuring.



- Concerning the margin for manoeuvre of the different territorial and urban sub-areas in comparison with national capitals - London, Paris and Madrid - the structuring of the motor sub-areas and their links with integration sub-areas is a vital objective that has to be achieved if their operational independence from the national capitals is to be strengthened. The consolidation of the Western France sub-area in relation to Paris, the English sub-area in relation to London and the Iberian sub-areas in relation to Madrid, is one of the conditions that must be met if polycentrism is to be developed in the Atlantic Area.
- The priority level for developing polycentrism in the Atlantic Area is the *meso* level. The implementation of suitable urban and territorial policies contributing to the strengthening and structuring of sub-areas emerges as a primary requirement. These policies entail the cross-border, inter-regional and national levels, depending on the degree of political decentralisation that exists in each of the states concerned. The analysis carried out shows that some national and regional policies are directly or indirectly being developed in a polycentrism perspective, whereas in other cases it is completely ignored. Strong political determination is therefore vital for the implementation of the construction of the polycentric development model in the Atlantic Area. This orientation will also mean strengthening cross-border and inter-regional co-operation, including between regions within the same state. It cannot be envisaged unless there is a strong partnership between the Regions and the cities.
- The most appropriate spatial units for the development of polycentrism in the Atlantic Area are motor sub-areas and integration sub-areas, such as we defined them previously. More specifically, as we will see later on, development areas inside the Atlantic Area should be defined on the basis of motor sub-areas with an examination of how weak or high potential integration regions can be integrated into them.
- Inter-regional, cross-border and transnational co-operation plays an important role in the structuring of polycentric sub-areas and the seaboard as a whole. Nevertheless, some questions arise as to the boundaries inherent in the implementation of co-operation under the INTERREG IIIA and B programmes along the Atlantic seaboard, which we do not believe are completely suited to the implementation of a polycentric-type strategy.

Consequently, we must ask ourselves the following set of questions before setting down a statement of strategic proposals for the continued elaboration of a development strategy for the Atlantic Area:

- Considering the extent of the contrasts and imbalances between the three categories of sub-areas, would it be better to differentiate the proposals and recommendations, rather than aiming to have one polycentric development perspective for the whole of the Atlantic Area?
- Given that polycentrism necessarily has to be perceived in a multi-scalar way, how can the proposals be articulated between the different levels?
- What policies should be advocated for each category of sub-area? These policies will in all likelihood be both territorial (for example, we might imagine proposals to improve connections between motor sub-areas and integration sub-areas, or to encourage city networking and stronger internal exchanges inside integration sub-areas,) and sectoral

(for example, to promote the maritime dimension and the natural environment, develop centres of excellence etc.).

- What role can inter-regional co-operation policies play, and what adjustments should be made to current co-operation programmes to encourage the development of polycentrism?

## **5. STRATEGIC GUIDELINES FOR THE DEVELOPMENT OF THE ATLANTIC AREA**

Bearing in mind the results of the analysis, the development strategy pursues two main objectives, at two levels:

- The promotion of inter-regional co-operation at the **Atlantic level**, to be constructed around stronger pro-active inter-regional co-operation based on a set of themes and structuring projects that bring together the common interests of the Atlantic regions and incorporate the specific features that define and assert the identity of the Atlantic Area inside Europe as a whole. The cities must also necessarily be involved in this initiative, through a partnership with the Regions.
- The strengthening of projects and development areas to be set up on the basis of gradual linkage between motor sub-areas and integration sub-areas, particularly via territorial and sectoral policies aimed at: improving their competitiveness (overcoming their main identified weaknesses and/or exploiting their comparative advantages with regard to other areas); internal territorial structuring (strengthening networks in such fields as transport and collective infrastructures, which demands new pro-active territorial co-operation); improving accessibility and connectivity with regard to other outside areas, both nationally and internationally. In this respect, the links between motor sub-areas and integration sub-areas (mainly those that are weakest according to the strategic evaluation) become a very important objective.

Both of these guidelines refer to the introduction of policies at two different levels: 1/ at the level of Atlantic sub-areas, targeting regional, cross-border and national policies in particular, and 2/ at the level of the Atlantic Area as a whole, essentially relating to policies of inter-regional co-operation and to a few national sectoral policies.

### **5.1. Reinforcing Atlantic inter-regional co-operation**

As we saw earlier, the ASDP's proposals come in complementary forms at two territorial levels, one at the level of the Atlantic Area in its overall context, and the second at the level of the development sub-areas. The proposals hereafter refer to the Atlantic Area in its entirety. However, there is no conflict whatsoever between these two levels and certain of these proposals can be taken up more locally ...

By combining the Interreg IIIB inter-regional co-operation projects that we analysed earlier on, we were able to determine the themes that it would be worthwhile continuing in the next Structural Fund scheduling period. These proposals revolve around three main themes: the maritime dimension, a fundamental theme of identity for the Atlantic Area; the promotion of

sustainable development for Atlantic rural areas and the strengthening of networks through the increased exchange of experience.

Other themes such as land transport and research could also have been dealt with at the overall level. These do indeed concern all regions, but insofar as they have already been the subject of detailed recommendations at the sub-area level, we do not believe it is useful to look at them again here, especially when one considers that the implementation of practical projects in these fields is often a matter for local co-operation.

### ***5.1.1 Maritime dimension***

This theme covers a great many sea-based inter-regional co-operation projects, all of which are highly varied. They can be classified under four issues:

- Maritime transport and safety
- Sustainable management of the Atlantic coast and marine environment
- Research-development-innovation in the field of marine resources
- Promotion of the Atlantic culture and identity.

These themes must be the subject of an integrated approach, which concurs with the European Commission's initiative in launching a consultation process to produce a green paper on a future European policy for the oceans and seas<sup>61</sup>. This Communication followed a previous Communication on a thematic strategy to protect and conserve the marine environment<sup>62</sup>, which was to be one of seven thematic strategies in the 6<sup>th</sup> Community Action Programme for the Environment<sup>63</sup>. This strategy, which aims at an integrated approach to the marine environment (and whose purpose is to rationalise and organise policies for the protection and management of this environment by means of a framework-directive), may well be one of the environmental cornerstones of the new European policy. This approach has to be as broad as possible, the President of the Commission and Commissioner Borg having both emphasized the economic, ecological, social and cultural dimensions of the sea. Marine and maritime issues must absolutely be dealt with in a common approach because the sea, more than any other field, knows no limits. But, at the same time, it must be underlined that the maritime dimension does not only concern coastal regions, but also those of the hinterland, which are responsible for the hinterland spatial planning and development, and without which the enhancement of maritime assets would be meaningless.

### ***Maritime transport and safety***

Both of these themes are closely interconnected because if we wish to encourage the development of maritime transport, we will also have to improve safety and be well prepared for

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<sup>61</sup> Communication by President Barroso and the European Commissioner Responsible for Fisheries and Maritime Affairs, Mr Borg, *Towards a Future EU maritime policy: A European vision for Oceans and Seas*, 2<sup>nd</sup> March 2005

<sup>62</sup> Communication of 2<sup>nd</sup> October 2002, confirmed in 2003 by a European Parliament resolution and the conclusions of the European Council

<sup>63</sup> Ruling by the European Parliament and the European Council, 2002

possible accidents so that they have as little impact as possible on the heritage and economy of coastal societies.

A great many initiatives to encourage intra-European maritime transport already exist, especially inside the Atlantic Area. The European Union has been encouraging this type of transport since the early nineties; it is less polluting and by handling the increase in exchanges brought about by the enlargement of the EU, is able to relieve road congestion problems in the centre of Europe, thus contributing to the Göteborg strategy for sustainable development of the EU. In its communications and notably in its white paper on transport (*European Transport Policy for 2010: Time to Decide*, 2001), the European Union hopes to encourage the concept of sea motorways and in 2003, incorporated them into the Trans-European Networks (TEN - T).

However, the EU's proposed definition of sea motorways is still rather vague. Two concepts of sea motorways are taking shape: the first definition, which for example is shared by the Baltic Sea countries (a region where many maritime lines already exist), considers sea motorways as being all short sea shipping routes. The second definition, shared by the French (in particular in the De Richemont parliamentary report<sup>64</sup>), sees sea motorways as a kind of floating infrastructure in which vessels are considered to be a stretch of free-roaming motorway, and as such implies considerable State funding.

It is therefore left to the players in the Atlantic Area to invent new tools for implementing genuine short shipping lines. All future co-operation will have to shift up a gear to the proactive stage of promoting maritime transport: detailed market studies will need to be set up, especially to look into the way road transport functions, lines will need to be given start-up help (while their independence in the long run must be guaranteed), existing lines will need to be rationalized and new modes of transport may have to be considered (the 45-ft container has been presented to us as an alternative to trailers and even to the 40-ft refrigerated container tested under the Marco Polo programme).

However, the introduction of sea motorways is not, and can never be, the sole responsibility of inter-regional co-operation and public initiatives. It is primarily a matter for private operators (ship owners, carriers etc.) who set up new maritime lines in response to a real market. Moreover, if there really is true political will in this direction, it is primarily up to the States and the Commission to provide the funding, legislation and tax regime that will encourage the transfer from road to maritime or rail modes of transport. There is also a need to coordinate the many studies that seem to follow one another without any true continuity and to move on to practical construction.

The importance of this theme is again underlined in a report published by the ATN working group, "accessibility": "ports and hinterlands, maritime transport and short sea shipping: freight intermodality". This report stresses the viability of sea motorways but in addition to this standpoint, also highlights the need for improved land links between the ports and their hinterlands, as a prerequisite for the success of sea motorways.

The issue of maritime safety is a response to increasing maritime transport in Europe and more especially on the Atlantic Ocean. In recent years, the Atlantic coastline has suffered heavily as a result of maritime accidents and is regularly affected by chronic pollution caused by such actions as degassing. From the point of view of sustainable transport, inter-regional and international co-

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<sup>64</sup> "An attractive flag, credible short sea shipping, two assets for France", a report commissioned by the Prime Minister, delivered on 1<sup>st</sup> April 2003.

operation on maritime safety must be strengthened. Even if accidents cannot be avoided, the reactions in the face of disaster have to be coordinated and must be as effective as possible. The EROCIPS project represents the first step towards coordinating the actions of local and regional authorities in the event of an accident; it does not replace action taken by central governments, who have greater skills at their disposal for dealing with accidents of this type at sea, but rather is complementary to it. Such co-operation must be perpetuated and extended as far afield as possible; local and regional action must become a reflex, and to do so requires regular training exercises.

The problem of maritime safety cannot and shall not, as indicated in the report ordered by the Interreg programme monitoring committee, be the sole responsibility of the regions. The experts define three categories: projects “requiring solely action on the part of central governments”, projects “involving exchanges of experience between local and regional authorities” and others “which ensure that regional and international agreements will benefit territorial agencies” (CPMR, Final report, *Fact-finding mission on transnational co-operation and maritime safety*, November 2004, p.4).

Eleven priority projects<sup>65</sup> were identified. Four of these should form the subject of inter-regional co-operation at the maritime basin level:

- “Identification of possible refuge areas for vessels in distress”
- “Training of local staff and fishermen in pollution response”
- Monitoring and operational oceanography services to predict drifting at sea and assess pollution importance”
- “Beach cleaning and management of marine debris”

A further five of them should form the subject of inter-regional co-operation at the global level:

- “Improve response means, tools, plans and awareness at different levels”
- “Exchange of experience and advisory network on pollution response”
- “Sharing experience and best practice guide for waste management in port areas”
- “Methodologies and best practices for impact assessment and monitoring changes”
- “Tools and programmes for assessing the influence of economic activity on the sea environment, with special emphasis on the role of ports”.

The Atlantic Area is therefore a particularly sound set-up when it comes to co-operation projects such as these and what is more, they must be part of a sustained and consistent policy (long term programming).

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<sup>65</sup> The report can be viewed on line on the Interreg IIIB Atlantic programme website: [http://www.interreg-atlantique.org/upload/guides/fr\\_Rapport\\_final\\_SM\\_FR.zip](http://www.interreg-atlantique.org/upload/guides/fr_Rapport_final_SM_FR.zip)

### ***Protection of the environment and integrated coastal zone management***

The Atlantic Ocean is the common environment of all regions in the Atlantic Area, either because it runs along their edge or because its influence can be felt far inland (the Atlantic climate has a determining effect on plant life and its influence extends as far as the mountainous barriers it encounters, such as the Massif Central). Preserving this environment, especially along the coastline - which is not only its most fragile area but also the one subjected to the greatest pressure (urbanisation, tourism, risks of sea pollution) - is of paramount importance to the Atlantic Area if it is to maintain its advantages and encourage the sustainable development of its territories. This is the objective of the future strategy for the protection and conservation of the marine environment (Commission Communication of 2/10/2002) through integrated action. This strategy proposes three lines of action: the protection and restoration of marine ecosystems, the fight against marine pollution and control over the use of marine resources and maritime activities.

The idea of the integrated management of the maritime environment and particularly of coastal zones – which are not only understood from the ecological point of view, but also in relation to the social and economic activities of the population living along the coast – has been germinating in the European Commission since 1996. After the completion of a demonstration programme, a Communication from Commission was published on 17<sup>th</sup> September 2000, on *Integrated Coastal Zone Management: A Strategy for Europe*. A recommendation concerning the implementation of Integrated Coastal Zone Management (ICZM) in Europe was adopted by the Council and Parliament on 30<sup>th</sup> May 2002. This recommendation provides for the establishment of national strategies by spring 2006.

At the level of the Atlantic basin, this approach has already begun, particularly through the COASTATLANTIC project. Initial studies under this project lead us to contemplate concrete action that necessarily has to be taken at the transnational level, such as the management of waste dumped at sea (not only a matter of recovering waste from the sea, but also putting a stop to the sources of pollution, particularly those of urban origin). Further necessities would be an inter-regional approach to the use of renewable energies, working in conjunction with research, and a consideration of climate change - North-South exchanges within the Atlantic Area could be very profitable here. The integrated management of coastal zones, as of the entire marine area, is a pro-active process that has to be reactivated at regular intervals to keep up with the dynamic interactions occurring between natural processes and the many human activities being carried out.

A permanent observatory or network of regional observatories might be considered, in liaison with the work of OSPAR<sup>66</sup>. A regional approach (in the sense of a regional sea) is more essential than ever and is one encouraged by recent European Commission initiatives.

### ***Research and innovation for the valorisation of marine resources***

We have yet to discover the full extent of the marine environment and its plentiful resources, which are not yet used to their full economic potential. Scientists estimate that only one percent

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<sup>66</sup> The OSPAR Convention (Oslo and Paris) was signed in 1992. It combined and updated the 1972 Oslo convention(1972) on dumping waste at sea and the 1974 Paris Convention on land-based sources of marine pollution. The OSPAR Commission defined 6 strategies: the protection and conservation of marine biodiversity and ecosystems, eutrophication, hazardous substances, offshore oil and gas industry, radioactive substances and monitoring and assessment.

of all marine molecules have so far been identified. Marine biodiversity is under-estimated and yet is in a process of decline. Research efforts in this area must be made and they must have European ambitions (one of the possible lines of research envisaged in the 7<sup>th</sup> European Research programme). In this respect, the Atlantic seaboard's research laboratories have specialist knowledge and know-how, as is shown by the Valbiomar project.

Oceanographic science (improving our understanding of the way oceans, animal and plant life function, particularly halieutic resources) and applied research must be developed. The topics that might be developed include such things as marine energies (the use of tidal effects and waves to produce energy, tidal current devices, offshore wind turbines and water turbines are considered to be fairly promising<sup>67</sup>), energies extracted from beneath the seabed (oil and gas), biotechnologies or, in association with the many famous shipyards along the Atlantic seaboard, research into developing new boats to facilitate maritime transport or explore and exploit the bottom of the sea.

### ***Culture and identity***

If all these activities are to be developed, the inhabitants of the Atlantic Area, especially its coastal population, need to deepen their understanding of the ocean and its culture. The sea is both a heritage that needs protecting, and a place of social and cultural activity.

Initial and further training is a prerequisite for all approaches. For example, it is vital for local authority services in coastal areas to be trained in the fight against sea pollution.

Traditional sea-related activities such as fishing need to be restructured and valorised; they have to evolve, face up to the fact that this sector has to be modernized, deal with changes in community policies on fishing, and enhance the know-how and traditions related to these professions.

The culture of the States and regions in the Atlantic Area, and more specifically their long and rich Atlantic past must be more widely understood.

The coastline is an essential part of the Atlantic Area: here lies the interface between sea and land, an area of complementarity that connects the hinterlands to the ports. Links between coastal and inland areas need careful thought and attention. Complementary relationships exist, for example, between the Atlantic forest exploited inland and the ports where the wood is both imported and exported (the port of La Rochelle-La Pallice is a major exporter of wood from the forests in the Limousin region in particular).

#### ***5.1.2 Promote the sustainable development of rural Atlantic Areas***

In view of our analysis, the Interreg projects studied, and the interviews we have held with the players involved, we believe that that development of rural areas is a very important issue for the Atlantic Area.

This theme is vital for the territorial and social cohesion of the Atlantic Area, since there are a great many fragile rural areas exposed to the risk of depopulation. These areas have a number of features in common with one another (a large proportion of these areas belong to the Atlantic

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<sup>67</sup> According to Arantza Ezpeleta in her presentation at the CPMR's scientific seminar on Europe and the Sea.

bio-geographical region, which determines the ecological characteristics of the Atlantic forestland), and also share a number of issues, including social problems caused by an ageing population, depopulation, agriculture and the management of exceptional sites such as those in the Natura 2000 network. However, local development policies and enthusiastic projects to enhance these territories do exist.

It is important to think carefully about the association between this “hinterland” and the coastal seaboard. It is vital for the ports and the whole of the coastline area to be backed up by a lively and active hinterland, as this will not only help to boost the development of activities in the port itself but also keep down demographic growth and urbanisation along the coast. These hinterland areas must therefore be strengthened and their infrastructure requirements given new thought. For example, the wood industry shows that most exports (supplying transformation industries) and imports of wood use the maritime route. The port of La Rochelle specializes in this sector in particular. Consequently, it must be possible to rethink and improve the links between the seaboard and its - extensive or not as the case may be -hinterland (the hinterland of La Rochelle extends as far as the Limousin region). The ancient link between forests and sea<sup>68</sup> can thus be reactivated, strengthening the identity of the Atlantic Area.

The development of inter-regional co-operation projects in the rural areas of the Atlantic Area must draw their inspiration from the new principles of the CAP (Common Agricultural Policy) whose aims, together with those of the new European Agricultural Fund for the Development of Rural Areas (EAFRD<sup>69</sup>, created in 2004 following the reform of the CAP adopted on 26<sup>th</sup> June 2003) might in return gain an extra dimension from the added value of these transnational co-operation projects. The Commission would like to leave most of the implementation of these programmes in the hands of local initiatives (the modalities of which are left to the Member states, the regions and local action groups). This bottom-up approach is at the origin of all inter-regional co-operation and so it should be relatively easy to find complementarities between these programmes.

It will be necessary to build rural and territorial development projects that not only comply with these guidelines (especially environmental protection, the quest for safety and the quality of agricultural production) but to which inter-regional co-operation can also make a positive contribution, for example in relation to a specific natural environment like the Atlantic forest, or to the joint promotion of products from the Atlantic Area, or research aimed at valorising the area’s output and finding new outlets for it.

Research projects based on the natural resources of the Atlantic Area’s rural areas can also be very productive, as the AGRO and LANATURAL projects demonstrate. Plenty of possibilities for development exist, such as encouraging more sustainable building methods using renewable materials (for example, using wool for insulation), improving the transformation of products (which very often are only harvested, but not transformed in rural areas, as shown by the

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<sup>68</sup> Large Atlantic forests were planted by Nation states during the Modern Age for the construction of the royal fleets. The kings then gave the forests royal protection since they provided the ships of the future.

<sup>69</sup> The EAFRD, the European Agricultural Fund for Rural Development, simplifies the instruments and funds for rural development. It will pursue three “axes”, or lines of action:

- 1: to improve the competitiveness of agriculture and forestry,
- 2: environment and land management (particularly with all the questions about agro-environmental measures, the counterparts of natural handicaps),
- 3: improving the quality of life and diversification.



example of the chestnut in Portugal), and qualitative valorisation<sup>70</sup>. Furthermore, these projects should also create or maintain rural employment to prevent depopulation and strengthen the territorial cohesion of the Atlantic Area. It is very important to give weight to quality jobs requiring intellectual skills (for example, by encouraging research on the endogenous resources of these areas) as a means of curbing the exodus of the younger, qualified population from these fragile rural areas, which otherwise results in an under-qualified, ageing population and low paid jobs.

From this viewpoint, it is necessary to try to make the most of the opportunities offered by information and communication technologies (ICT), including within the context of helping to boost the activities mentioned above. The linking of rural areas with the most high-performing communication networks meets the two-fold objective of social equality and economic efficiency. The Atlantic rural areas cannot be kept outside of the communication and information society!

A further section on support for the most fragile rural areas needs to be taken into consideration: the restructuring of the offer of services to the inhabitants of the small towns and villages that make up the structure of these territories. A number of innovative experimental multi-service centres combining a variety of public services have already been launched in certain French regions, as have other new concepts such as health centres. Exchanges of experience should be encouraged, since in the fragile regions of the Atlantic Area, maintaining a quality offer of services to people is one of the keys to the survival of rural areas. What is more, confronted with the irreversible phenomenon of ageing populations in Atlantic regions, it might be useful to share experience and give joint consideration to the issue in order to adapt the offer of services in a way more likely to keep elderly people in their local environment. Together with the rise of ICT, the improved offer of services can encourage the creation of micro-centralities, which are necessary for a better structuring of the most fragile areas.

Another theme specific to rural areas should also be considered when sharing experience: the valorisation of small heritage buildings and/or other types of heritage, such as local know-how, as part of the controlled development of rural tourism.

### ***5.1.3 Strengthen the exchange of experience and co-operation networks***

Much of the added value of Atlantic inter-regional co-operation is contained in the exchange of experience and best practices, which on the one hand helps to make projects more efficient and effective, and on the other, strengthens the identity of the Atlantic Area.

In the light of the projects we have analysed, we believe that there are two main lines here:

- Firstly, the strengthening of best practices and the exchange of experience in the fields of environmental management, the development of knowledge, Research, Development and

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<sup>70</sup> Three European quality labels, or seals of approval, can be used to enhance products from the Atlantic Area: 1/ the **PGI**, protected geographical indication, concerns products whose characteristics or reputation are connected to a given geographical area. At least one step in the production process must be carried out in the area concerned; 2/ the **PDO**, protected designation of origin, gives value to a product that has certain qualities resulting solely from the specific soil in the region of production and the skills of the producers. All steps in the production process must be carried out in the area concerned; 3/ the **GTS**, guaranteed traditional speciality, concerns foods that either use traditional ingredients or are made by traditional methods.

Technologies (RDT) and innovation, and centres of competitiveness in strategic economic sectors in the Atlantic Area

- And secondly, the strengthening of those towns in the Atlantic Area that are nodes for transport networks and are the focal points that give structure to the territories, in order to give everyone access to services and research and training centres. There is a need to promote the economy in this area so as to attract investment, companies and jobs and to make up for the less than positive image investors have of it.

*The strengthening of best practices and the exchange of experience*

Firstly, we believe that thematic discussions are required to exchange best practices and experience in the field of environmental management, in parallel with and complementary to the actions undertaken in the field of maritime issues. The Atlantic regions do indeed have to confront a number of common issues:

- Quantitative (to deal with problems of drought or flooding) and qualitative water management. The success of the ICRW project shows that this type of co-operation can be especially rich.
- Prevention of natural and technological risks - the Atlantic Area is particularly exposed to technological risks because of the large number of petrochemical terminals and processing plants it contains.
- Preservation and enhancement of the natural and man-made heritage (network of natural areas, enhancement of the Atlantic Area's rich cultural and historical heritage).
- Forest fire prevention and forest fire fighting. Forest fires are a major source of ecological, social and economic damage in most regions.
- The need to restrict the pressure caused by tourist activities, intensive agricultural practices and urbanisation, especially on coastal areas.

The regions in the Atlantic regions may be different but they are confronted with the same problems and very often the solutions can be transferred from one region to another.

A second field for exchange of experience concerns the development of the **knowledge economy**, which is at the heart of the Lisboa strategy for competitiveness and employment. We must continue to boost the Atlantic Area's research and innovation capabilities, especially as it is less well equipped and less dynamic in this field than the Pentagon regions.

The Lisboa agenda was relaunched in February 2005, focusing on three themes:

- To make Europe a more attractive place to invest and work (in particular by extending and improving European infrastructures),
- To place knowledge and innovation at the heart of European growth (particularly by boosting investment in R&D to a level equivalent to 3 % of GDP, creating innovation poles, appropriating information and communication technologies and eco-innovation),

- To create more and better jobs (by investing more in people, education and training).

Two of the Interreg projects that we have looked at, the REGINA project and the COAST project, cover these topics. These projects allow us to envisage the creation of innovation centres along the Atlantic seaboard, bringing together universities, research centres and companies. This idea, suggested by President Barroso, has already materialized in Italy and France in the form of the centres of competitiveness proposed by the DATAR. Partners in the EURATLANTIC, Valbiomar and COAST (as shown by the strategy of the Basques) projects are very interested in the process and the examples of the Valbiomar and COAST projects prove that it is possible to envisage European specialisation centres at the Atlantic Area level. These centres might be inspired by the conclusions of the Barcelona summit meeting in 2002, in which encouragement was expressed for public-private research and innovation partnerships, on the basis of 2/3 company and 1/3 public sector support.

In addition to this, a preference for “bottom-up” approaches has been expressed. The COAST project, initiated by associations of small and medium sized companies in the aeronautics sector, is a first step in this direction. Judging by the success of calls for projects from the centres of competitiveness in France, the pro-active association between research and companies seems very promising, as long as the centres are coherently defined at the European level. However, the Atlantic level is perhaps not necessarily the most appropriate one, and regional or cross-border policies may be more effective.

The added value of transnational co-operation in this domain comes from the sharing of experiences and the implementation of common methodologies. The REGINA project is a good example of this situation. At first sight, its selected niches are not necessarily representative of the potential of the Atlantic Area as a whole, and the project’s partners furthermore believe that co-operation in the fields chosen could quite easily occur within the context of a different co-operation area - in the excellence and research sectors for instance, co-operation is at a European and even global level. The added value of REGINA does however come from the choice of a common methodology by the participating regions.

Certain sectors, such as biotechnologies applied to marine resources, perhaps seem to be important in the Atlantic Area. The regional representatives for Brittany and West Ireland also believe that biotechnologies applied to the field of health and nanotechnologies may in retrospect turn out to be possibilities for specialisation. The COAST example also enables us to suggest specialities in the aeronautics, space and defence industries. The industries selected by the EURATLANTIC project (which only concerns the “southern” part of the Atlantic Area) add an extra dimension to these fields: food processing and associated biotechnologies, the automobile industry and the aeronautics industry (which confirms the choice made by the COAST project).

These proposals commit the regions to improving their management of knowledge and innovation (as the REGINA project proposes), notably by investing in people, education and training and in improving the environment in which companies work. The Atlantic Area already offers plenty of advantages in this domain, such as the quality of life, which must be protected and enhanced.

Consequently, this policy also depends on the accessibility and attractive development of the towns and territories in the Atlantic Area.

### *Make Atlantic territories and cities more attractive and more accessible*

According to the principles of the Lisboa summit to boost competitiveness with a view to the sustainable growth of the European Union, co-operation policies must enable the territories and cities of the Atlantic Area to become more competitive and more attractive. The Lisboa strategy<sup>71</sup>, relaunched in February 2005 by President Barroso, requires active participation from all partners, especially those of European regions and cities (an objective that was reconfirmed at the conference of 3rd March 2005 on Cohesion and the Lisboa Strategy, organised by the DG Regio in Brussels). The Structural Funds have already contributed to the objectives of the Lisboa agenda (study published in February 2005, commissioned by the DG Regio), particularly with regard to infrastructures and policies on equal employment opportunities and the construction of the information society. These efforts need to be consolidated, as is shown by a number of the Interreg co-operation projects we have examined.

Promoting a policy for more attractive and more accessible Atlantic cities may lead to improved territorial cohesion and help make the Atlantic Area more competitive. This is a vital element for the development of polycentrism at the Atlantic Area level. To this end, exchanges of experience between Atlantic cities and territories must be introduced on such subjects as transport (as an extension to the PARTNER project for example) and the urban regeneration of obsolete ports and industrial areas (using the REVITA project as an example).

We must note that writing inter-regional co-operation into the Structural Funds framework would perhaps give these projects greater magnitude. As the players in the PARTNER project pointed out to us, their project relies on heavy investment in transport, financed by certain partners (local municipalities in particular) on top of the Interreg project budget. If inter-regional co-operation were written into the Structural Funds framework, these investments might be financed thereunder. Financing might similarly be provided for some of the major urban renewal operations undertaken in Atlantic cities having to confront similar issues to these (restructuring port areas, former industrial or military land, etc) whilst at the same time having to cope with demographic growth, the need to preserve the environment and by the same token, tourist appeal. Transport projects should also help to provide improved links between the hinterland and the sea, working in complementarity with co-operation projects on the development of maritime transport.

It is important to emphasize that this set of proposals aimed at strengthening the appeal of cities in the Atlantic Area may not be interpreted as a way of relegating to the background the issue of developing fragile rural areas with a low-density population and deprived of a strong urban structure. These areas have their own assets (in terms of specific resources) to be exploited, but this can only be envisaged if they themselves are attractive enough to retain a young and

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<sup>71</sup> The European Council adopted the Lisboa strategy on 23rd and 24th March 2000, in which they set themselves a new strategic goal for the Union to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social adhesion. The European summit held in Göteborg added the extra dimension of sustainable development to this strategy, which includes three main cornerstones, two in favour of social and economic renewal and a third for the environment. Initiatives were launched in favour of the development of an information society for all, establishing a European Area of Research and innovation, aid for the creation of innovative companies and the modernisation of social protection. The Göteborg Council set precise objectives and deadlines on combating climate change, ensuring sustainable transport, threats to public health and the management of resources.

innovative population. In other words, support for rural development is a necessary follow-on from policies to develop the competitiveness of cities.

Finally, it might be beneficial to support a certain number of exchange of experience and best practices networks as a means of strengthening the identity of the Atlantic Area. A policy to promote the economy of the Atlantic Area (like the EURATLANTIC project) must be pursued, especially when one considers the time and patience required for economic prospecting. This policy could be completed by the promotion both inside and outside the European Union of the skills and output of the Atlantic Area. Such an ambition would improve the unity between the “North” and the “South” of the Atlantic Area: the North may be a long way ahead in terms of economic prospecting, but the South has a strong relationship with South America and Africa, and knows how to exploit its products to the full, especially its food produce (a multitude of AOCs and AOPs), which benefit from the positive image of its still relatively protected environment. And lastly, action of this kind is a way to improve the links between rural areas and city networks, since their respective outputs are complementary to one another and can be promoted at the same time.

## **5.2. Future projects and development areas inside the Atlantic Area (*see map 22*)**

The previous section offered us a vision of the Atlantic seaboard as being split into different sub-areas without any obvious links and characterised by widely disparate levels of development. The structuring of these sub-areas and their linkage inside better integrated areas with sustainable and better-balanced development are thus essential conditions for the development of polycentrism and the stronger autonomy of the Atlantic regions in relation to the Pentagon and national capitals. To achieve this demands an improved prior definition of those areas to which the territorial and sectoral policies - for which the ASDP intends to set down recommendations - should be adapted.

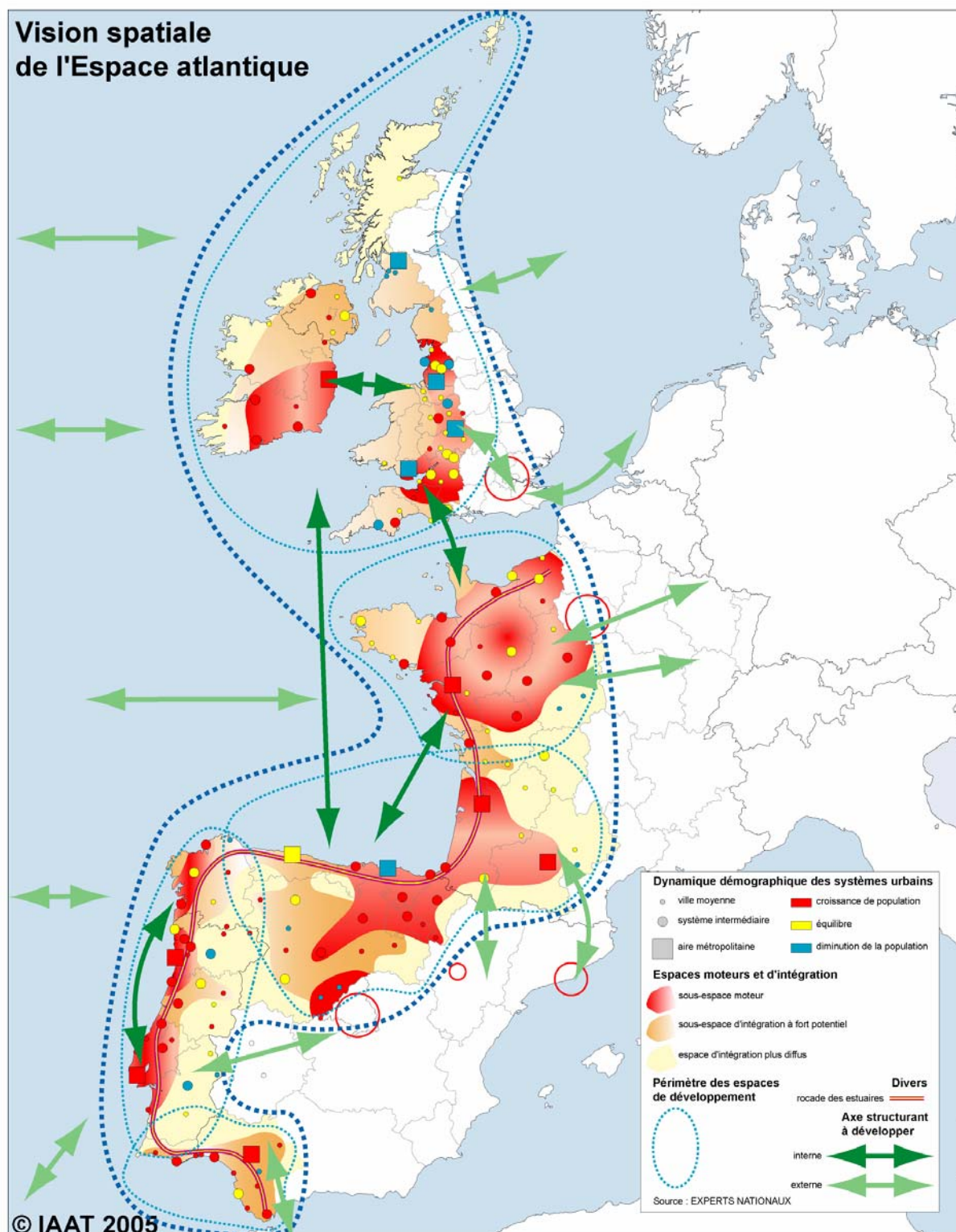
The approach followed here is intended to be proactive, mobilising and persuasive. Both determined and futuristic, it means to define desirable areas for inter-regional co-operation and action inside the Atlantic Area, in order to strengthen spatial linking and development trends. In this section therefore, the aim is to offer a vision of the possible areas that together make up the most appropriate territorial framework for the implementation of a polycentric development project for the EU Atlantic seaboard, bearing in mind the discontinuities and heterogeneities brought to light by the analysis.

Consequently, we propose to distinctly identify different major development areas inside the Atlantic Area; the sectoral, territorial, action and co-operation proposals should then be tailored to suit the individual nature of each of these development areas. In other terms, the proposed sub-areas must be considered as projects areas, complying to the orientation of polycentrism recommended by the ESDP. Each of these areas consists of one or more motor sub-areas and integration sub-areas whose vocation is to join them. This proposal will not of course give strict lines of division; the contours of each area will necessarily remain blurred and in theory cannot be confused with local, regional or even national boundaries. This is why a given region may, as a political and administrative decision-making place, be involved in the planning and development of more than one area if it is located in an area of transition between those development areas.

The areas that we are proposing have been considered with a view to defining an intermediate territorial framework between the local and the overall Atlantic Area, within which measures that

are part of a common approach to polycentric development and more coherent, more balanced and more sustainable co-operation can be implemented. However, we do not intend by this division to impose any kind of exclusivity whatsoever, nor to prevent the construction of strong partnerships and co-operation programmes with entities outside the different areas. The role of these sub-areas of development is not to replace the Atlantic Area in its global context; the Atlantic Area is obviously still a relevant area for European scale co-operation, especially for a number of crucial fields, such as maritime and rural issues...

Map 22: Spatial vision of the Atlantic Area



The objective is not to replace one scale (sub-areas) with another (Atlantic Area), but rather to reflect in concrete terms the need to consider action (and cooperation) on two distinct, complementary levels.

In sum, the chosen breakdown is the result of a double requirement:

- To ensure greater solidarity between coastal areas and the hinterland, and to help improve the integration of fragile areas.
- To respond to the need to structure development areas which are less dependant on the capital cities.

The strategic vision we are proposing to put forward for the planning and development of the Atlantic Area clearly identifies five major projects and development areas, inside which stronger – but not exclusive – co-operation between regions is required:

#### ***5.2.1 The British Atlantic Area (Western part of the United Kingdom and Ireland)***

The first major integration and development area consists of all the Atlantic regions in the United Kingdom and Ireland. Nobody can deny the fact that, for historical reasons, these regions have not always adopted concerted planning and development policies, and yet by the very facts of their island situation, the need for the Irish Sea and its coasts to be jointly managed, the ever more intensive development of exchanges of people, goods and capitals, and their linguistic unity, they form a potential area for coherent planning united by objective solidarity. It should be noted that a large part of this zone of the United Kingdom falls directly under London's area of influence.

#### ***5.2.2 The French North-West Area***

The second area incorporates all of the regions in the north-western half of the French Atlantic Area. In addition to the regions in the motor sub-area, which are themselves strongly connected to Paris, it also includes the high potential integration sub-areas of Cotentin, Brittany and Poitou-Charentes, and the much weaker inland areas of the Centre (south) and Poitou-Charentes as well as the Limousin, whose capital, Limoges, hopes to become an integral part of the major network of intermediate cities in the centre-west. The Limousin and Poitou-Charentes regions, which are very rural and have a low population density, are transitional areas and are divided between this zone and the more southern zone that groups together the regions of South West France and Northern Spain. Basse Normandie, Haute Normandie, Brittany, Centre, Pays de la Loire, Poitou-Charentes and Limousin are all concerned by the development strategy of this area.

#### ***5.2.3 The French-Spanish Area***

The third major area in the Atlantic Area is formed by Southwest France and Northern Spain, including high potential and weak inland areas. The western border of this area splits Galicia into two unequal sized areas, with the coast being included in the Spanish-Portuguese area, as we shall see further on, while the southern border adjoins Madrid and Estremadure. From this point of view, the aim is to help the inland regions of Spain benefit from the momentum of the very dynamic northern regions and from the drive-on effects of Madrid's expansion. Having said this, from the strategic standpoint, the major challenge posed by the definition of this zone is to create



proper links between the two national components by strengthening cross-border co-operation. Looking at this area from the point of view of its future prospects, its development will depend on a potential for complementarity and exchanges that has not yet been fully exploited. We therefore believe it is possible to consider this territorial unit as a privileged partnership area whose links are just waiting to be consolidated. Through the implementation of public policies, the Autonomous Communities of the Pays Basque, Navarre, La Rioja, Cantabria, Asturias, Castile and León and Galicia in Spain, and the Aquitaine and Midi-Pyrenees regions and the southern part of Limousin in France have implications in this area. It should be noted that the links inside this French-Spanish zone could also be strengthened by developing Trans-Pyrenees relations with the Ebre Valley through the use of road-rail piggyback transport through the Somport tunnel, as well as the improvement of relations between intermediate cities of Navarre and Pyrénées Atlantiques. More generally, the issue of the crossing of the Pyrenees, notably along the Pamplona-Pau axis, still needs to be addressed and calls for adapted solutions, which take into account the environmental constraints specific to the mountain environment.

#### ***5.2.4 The Western Iberian Area***

The fourth strategic development area is the western seaboard of the Iberian Peninsula and includes all of the Portuguese regions except for the Algarve. It continues northwards to include part of Galicia, which for historic, linguistic and socio-economic reasons has a strong calling to cooperate with the Portuguese zone. Incidentally, the infrastructures enabling Galicia to have good links with Portugal have been considerably improved over the last few years.

This zone is also characterized by its role as a “transition point” between three worlds – Latin-America, Africa and Europe. In fact, all the Atlantic regions are destined to play an increased role as an interface between Europe and the overseas continents of America or Africa in the context of ever-deepening globalisation. However, thanks notably to the presence of a metropolis - Lisboa - whose international profile and influence have strongly increased, the Western Iberian area is able to put this geo-strategic situation to its best advantage.

#### ***5.2.5 The Southern Iberian Area***

Finally, there is one last strategic area to consider, one that includes the Algarve and western Andalusia. These two regions are similar in many ways, if only because they share the same rich history, and there has been a tradition of active cross-border co-operation between them for many years. Also included in this zone is the inland part of the south of Alentejo, an area that is more depressed than its two neighbours but that shares their double Atlantic and Mediterranean identity. This area does in fact belong to both the Western and Southern Iberian zones.

These are therefore the geographical terms by which the development areas can be defined. Recommendations of a strategic nature geared towards the polycentric development of the Atlantic Area can be advocated at their level.

These areas have been designed as areas of projects and development inside which it is proposed to bring development policies into line with one another and strengthen inter-regional co-operation. These areas must be considered as components in their own right of the total unit formed by the Atlantic Area and must under no circumstances be regarded as suggested boundaries defining new areas for implementing structural funds.

### 5.3 Recommendations

Three main categories of policy recommendations have been put forward for each of these projects and development areas:

- Territorial ones: envisaging new polycentric urban territorialities inside the regions. On the one hand, these involve advising the mesh of relatively average-sized towns in each of these sub-areas to cooperate and create ties with one another, with a view to developing the synergies that will help them improve their international exposure. But it is also the role of the EU, the States and the Regions to help the cities to carry out the actions that are necessary to improve the networking of the Atlantic Area in general, as well as within the sub-areas. On the other hand, the need to fight against the depopulation of rural areas and its effects calls for proposals adapted and specific to each individual context.
- Sectoral ones, particularly on accessibility and transport, research-development-innovation, the environment and risk protection.
- Recommendations concerning linkage with other sub-areas. Here again, the five main zones are not to be considered as separate closed-off areas. Rather, the idea is to specify recommendations on wider co-operation and particularly on transport (for example, cross-channel links), that will lead to greater integration of the Atlantic Area overall. Furthermore, measures concerning the development of relations with other large European or global geo-economic entities must also be considered.

These recommendations are summarised in the following table.

## Summary of recommendations by sub-area of the project

		<b>The British and Irish Atlantic Area</b>	<b>The French Atlantic North-West Area</b>	<b>The French-Spanish Cross-border Area</b>
<b>Territorial recommendations</b>	<b>Strengthening the urban structure</b>	<ul style="list-style-type: none"> <li>- Strengthen co-operation between metropolitan regions (Cardiff-Swansea-Newport, Glasgow-Edinburgh, Liverpool-Manchester) and between Belfast and Dublin.</li> <li>- Build up networks and co-operation between intermediate cities (especially for economic development)</li> <li>- Encourage co-operation between small and medium-sized towns, intermediate systems and metropolises in the field of economic development.</li> </ul>	<ul style="list-style-type: none"> <li>- Strengthen the “Norman metropolis” (Caen - Le Havre – Rouen)</li> <li>- Structure the “Loire-Brittany” area</li> <li>- Encourage the networking of intermediate cities in the southern part of this area (Orleans, Blois, Tours, Le Mans, Poitiers)</li> <li>- Conduct a policy of co-operation to strengthen ties and complementarity</li> <li>- Build up exchanges and solidarity between medium-sized towns</li> <li>- Improve the offer of services to companies and private individuals in small and medium-sized towns</li> <li>- Encourage improved connectivity between small towns and intermediate cities and metropolises</li> </ul>	<ul style="list-style-type: none"> <li>- Strengthen the functions carried out by the 4 metropolitan systems and their fields of excellence (aeronautics in Bordeaux and Toulouse, the manufacturing industry in Spanish metropolises etc.)</li> <li>- Intensify co-operation within the “Basque Eurocity”</li> <li>- Encourage exchanges and co-operation between these centres,</li> <li>- Strengthen intermediate towns,</li> <li>- Develop co-operation between intermediate cities</li> <li>- Enhance and strengthen the urban functions of medium-sized towns</li> <li>- Encourage exchanges between these towns.</li> </ul>
	<b>Rurality and low density areas</b>	<ul style="list-style-type: none"> <li>- Encourage the development of new economic activities to make up for the decline in agriculture and fishing.</li> <li>- Develop the exchange of experience to curb the exodus of the most qualified younger population and create quality employment.</li> </ul>	<ul style="list-style-type: none"> <li>- Boost the image of small market town centres by improving cultural and youth training possibilities.</li> <li>- Create multi-service centres in small towns.</li> <li>- Diversify rural activities and encourage the creation of jobs in new industries (bio-energies, services to the population, etc.)</li> <li>- Enhance local resources (natural and man-made heritage, local know-how and skills)</li> <li>- Improve access to the rail network to open up the rural inland territories in the south to the outside.</li> </ul>	<ul style="list-style-type: none"> <li>- Boost the image of small market town centres and the role of small towns in the offer of personal services; help small town economic development projects</li> <li>- Encourage the creation of jobs (bio energies, services to the population, etc.)</li> <li>- Boost rural tourism through the integral management of man-made heritage and the environment, and use the existence of cultural routes with Europe-wide significance to better advantage</li> <li>- Exploit local resources</li> <li>- Improve access to the rail network to open up inland areas, especially in mountainous areas</li> </ul>

## Summary of recommendations by sub-area of the project (cont.)

Sectoral recommendations	Internal and external accessibility	<ul style="list-style-type: none"> <li>- Encourage the exchange of experience and practices in the field of transport and develop cross-border co-operation in this field in Ireland</li> <li>- Strengthen co-operation between the two islands, especially regarding accessibility to the rest of the Atlantic Area and the continent.</li> <li>- Improve the rail and road links between Dublin and Belfast between the cities of the western part of Ireland.</li> <li>- Encourage improved accessibility by air, especially with regard to the rest of the Atlantic Area.</li> <li>- Encourage the development of sea motorways</li> </ul>	<ul style="list-style-type: none"> <li>- Develop sea motorways and short sea shipping between the French Atlantic ports</li> <li>- Improve road and rail links between the ports and their hinterlands- Build up existing rail lines</li> <li>- Finish the “rocade des estuaires” (estuary ring road)</li> <li>- Finish the Paris bypass</li> <li>- Strengthen cross-country road links (Nantes- Lyon via Poitiers and Limoges) and freight transport by rail to and from Bordeaux and Spain</li> <li>- Consolidate the Poitiers- Limoges link in the rail and road chains, in order to improve links between the inland regions of the French sub-areas</li> <li>- Build up direct European and international flights from the new ND des Landes airport and develop improved Intra-Atlantic air accessibility.</li> <li>- Use the Chateauroux-Déols airport to greater advantage</li> <li>- Create an intermodal international-scale logistical hub between Paris and Spain</li> </ul>	<ul style="list-style-type: none"> <li>- Develop sea motorways and promote the ports of Santander, Gijon, Bilbao and Bordeaux</li> <li>- Strengthen existing rail lines and connect the low speed train networks; develop French-Spanish road-rail piggyback transport to relieve congestion at border crossings</li> <li>- Finish the “rocade des estuaires” (estuary ring road) in order to link the neighbouring development areas, notably the Western Iberian area ; especially by improving connectivity between the Cantabrian axis and Galicia</li> <li>- Develop secondary roads and carry out a policy to open up medium-sized towns not located along main traffic corridors to the outside</li> <li>- Encourage mountainous areas to open up to the outside (valleys in the Pyrenees) and improve the road links between intermediate cities of Navarra and Pyrénées Atlantiques</li> <li>- Build up direct European and International flights from Toulouse, Bordeaux and Bilbao</li> <li>- Encourage links with the other regions in the Atlantic Area.</li> </ul>
	Innovation development and R&D	<ul style="list-style-type: none"> <li>- Strengthen research and knowledge networks between both countries and their metropolitan regions and intermediate cities</li> <li>- Development of “Science cities”</li> <li>- Encourage the creation of specialist research centres</li> <li>- Strengthen “clusters” associating companies and research centres, especially in biotechnologies, food processing, textiles and the sustainable exploitation of natural resources.</li> </ul>	<ul style="list-style-type: none"> <li>- Promote existing national and transnational research networks in fields identified by the works of the ATN</li> <li>- Encourage centres of excellence linked to productive specialisations with high technological content</li> <li>- Work alongside the state policy of centres of competitiveness</li> </ul>	<ul style="list-style-type: none"> <li>- Strengthen specialist and cutting edge research centres in metropolises and intermediate cities, in fields where they already have comparative advantages</li> <li>- Promote French-Spanish research networks</li> <li>- Implement selective aid in favour of centres of excellence already identified in both Spain and France</li> </ul>

### Summary of recommendations by sub-area of the project (cont.)

	<b>Environment and risk prevention</b>	<ul style="list-style-type: none"> <li>- Improve co-operation in the field of water quality</li> <li>- Strengthen cooperation in the integrated management of the Irish sea</li> <li>- Increase the priority to waste management as an issue and strengthen cooperation in the management of waste, including cross-border cooperation</li> </ul>	<ul style="list-style-type: none"> <li>-Strengthen co-operation on environmental issues (integrated coastal zone management, water quality, enhancement of man-made heritage, etc.)</li> <li>- Increase co-operation in the management of fragile natural environments (such as estuaries etc.)</li> <li>-Encourage sustainable agricultural methods and control the environmental impact of intensive farming</li> </ul>	<ul style="list-style-type: none"> <li>- Strengthen co-operation in the field of maritime safety</li> <li>- Set up a system of integrated coastal zone management</li> <li>- Develop the exchanges of best protection practices when dealing with the most fragile environments (such as estuaries, rias etc.), and/or those that have remarkable biodiversity or landscape features (mountain areas)</li> <li>- Increase co-operation in the fight against forest fires</li> </ul>
<b>Linkage with other Atlantic sub-areas</b>		<ul style="list-style-type: none"> <li>- Encourage the development of sea motorways.</li> </ul>	<ul style="list-style-type: none"> <li>-Encourage inter-regional co-operation with the British zone and the French-Spanish zone</li> <li>- Strengthen cross-channel links and direct connections with Ireland</li> </ul>	
<b>Specific recommendations</b>		<p>Encourage implementation of polycentric development policies through:</p> <ul style="list-style-type: none"> <li>- greater freedom and flexibility to local authorities</li> <li>- funding regimes that can encourage active inter-authority cooperation</li> </ul>	<ul style="list-style-type: none"> <li>- Improve linkage between weak areas and “motor” areas by:</li> <li>- Improving connections,</li> <li>- Looking for better territorial linkage</li> <li>- Developing activities with high technological content</li> <li>- Developing the maritime economy</li> <li>- Strengthening local potential</li> </ul>	<ul style="list-style-type: none"> <li>- Get more out of the bi-national nature of this zone and encourage French-Spanish co-operation by gearing up the transfer of experience (coastal management, rural tourism, urban re-classification of industrial wasteland etc.)</li> <li>- Exploit specific local resources (highlight local produce etc.).</li> </ul>

### Summary of recommendations by sub-area of the project (cont.)

		Western-Iberian Atlantic	South-Iberian sub-area
<b>Territorial Recommendations</b>	<b>Strengthening the urban structure</b>	<ul style="list-style-type: none"> <li>- Support the multipolar and polycentric development of the urban region of Lisboa</li> <li>- Strengthen the international position of Poto, notably in association with Galicia</li> <li>- Strengthen the urban luso-Galician axis by improving its internal and external accessibility</li> <li>- Develop cooperation between the cities in order to create networks of intermediate and medium-sized towns aiming at reinforcing functional complementarities</li> <li>- Reinforce the attractiveness of intermediate and medium-sized towns (by refurbishing historic centres for instance)</li> <li>- Support the dynamism of Galician urban and Portuguese central-coastal networks by promoting some strategic sectors and cooperation between research centres.</li> </ul>	<ul style="list-style-type: none"> <li>- Emphasise the role of Sevilla as a European regional capital, while promoting a polycentric development of its urban region.</li> <li>- improve the qualification of workers – especially young people – by improving the local training system, mainly technical and university, and reinforcing the local teaching profession in the fields of technologies and management</li> <li>- Decentralise functions and services in order to reinforce the different levels of urban hierarchy (for a balanced closely-knit network)</li> <li>- To affirm a polycentric and inter-city network between the cities of Faro, Loulé and Olhão; support intercommunality at the level of small towns</li> <li>- Create better integrated local systems, based on a balanced spread of infrastructures and equipments</li> </ul>
	<b>Rurality and low density areas</b>	<ul style="list-style-type: none"> <li>- Develop functional relations in the cross border luso-Galician region</li> <li>- Enhance rural towns in their role of interface between the city and the countryside</li> <li>- Stabilise mountain areas through specially adapted policies</li> <li>- Develop new tourist sectors (religious, cultural, nature tourism...)</li> <li>- Reinforce the technological and organisational basis of agriculture and emphasise quality produce</li> </ul>	<ul style="list-style-type: none"> <li>- Step up rural development policies, support to Comarca town centres, and improve the secondary roads.</li> <li>- Complete the “Ruta de la Plata” and its link with Huelva, Badajoz and the inland Portuguese routes in order to limit breaks at the border</li> <li>- Implement sustainable development strategies, while making the most of nearby metropolitan tourist markets in the Sierra Morena</li> <li>- Revitalise the Sierra Algarvia in order to limit desertification</li> <li>- Draw up a tourist development scheme for the whole Sierra, emphasising the cultural and architectural heritage, as well as traditions and local crafts.</li> </ul>
<b>Sectoral Recommendations</b>	<b>Internal and external accessibility</b>	<ul style="list-style-type: none"> <li>- Boost the main international multimodal platforms</li> <li>- Seek greater complementarity between existing air infrastructures</li> <li>- Structure the Atlantic coast along the La Corogne-Vigo–Porto–Aveiro–Lisboa axis with the construction of a high speed line</li> <li>- Organise the cities of the luso-Galician border into a cross-border network</li> <li>- Reinforce logistic infrastructure of ports in view of implementing motorways of the sea</li> <li>- Reinforce the digital infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Reinforce the ports system, be it for short sea shipping or for transit or transport of industrial products</li> <li>- Complete the “Ruta de la Plata” (Sevilla-Gijon) and its link with the Huelva-Badajoz axis, as well as the link between Sevilla and Huelva to Beja</li> <li>- Complete the Cádiz-Algeiras and Cádiz-Antequera motorways</li> <li>- Improve the operation of Faro international airport</li> <li>- Improve the port infrastructures in order to host Cruise Ships</li> <li>- Develop the broad-band network</li> </ul>

### Summary of recommendations by sub-area of the project (cont.)

		Western-Iberian Atlantic	South-Iberian sub-area
Sectoral Recommendations	Developing innovation and R&D	<ul style="list-style-type: none"> <li>- Strengthen research and knowledge dissemination networks</li> <li>- Attract and retain locally within the area multinational firms, which create virtual production and knowledge transfer networks</li> <li>- Establish centres of excellence in research and development targeted at developing production, by fostering complementary activities with universities rather than duplicating specialisations,</li> <li>- Develop, in a public-private partnership, research and development in the fields of robotics and automation (Lisboa) and polymer engineering (universities of Coimbra and Minho)</li> <li>- Develop an ocean research centre in Lisboa</li> <li>- Support the conversion of more traditional firms and help them integrate technological innovations</li> <li>- Create a transnational network to respond to the needs of the productive system and help prepare for the effects of globalisation</li> </ul>	<ul style="list-style-type: none"> <li>- Step up research in the new technology sectors, with the participation of universities, research centres and businesses</li> <li>- Support relations between research, production and innovation in sectors such as food processing, aquaculture, environment, chemicals industry, telecommunications, equipment goods, transport equipment and the tourist industry</li> <li>- Increase public and private investment in R&amp;D</li> <li>- Strengthen Portugal's biggest aquaculture centre (Ria Formosa) by increasing its technological power in association with the Sea Sciences and Environment Faculty of the University of Algarve.</li> </ul>
	Environment and risk prevention	<ul style="list-style-type: none"> <li>- Continue efforts to develop the sewerage system and treatment of industrial waste water in the various coastal and riverside industrialised and urbanised areas</li> <li>- Ensure a more balanced land use</li> <li>- Preserve the coastline</li> <li>- Extend and step up protected areas by setting up a metropolitan ecology network and ensuring an integrated management of ecological corridors</li> </ul>	<ul style="list-style-type: none"> <li>- Control tourist and urban pressure on the coastal environment</li> <li>- Continue to implement management plans for water resources, sewerage, processing solid waste from urban communities, improving air quality and regenerating the run-down industrial areas of Huelva and Cádiz</li> <li>- Protect the landscape (especially on the coast), prevent natural risks in coastal areas in relation with maritime safety policies</li> <li>- Protect farming land under urban pressure.</li> </ul>

### Summary of recommendations by sub-area of the project (cont. and end)

	Western-Iberian Atlantic	South-Iberian sub-area
<b>Interlinks with other Atlantic sub-areas</b>	<ul style="list-style-type: none"> <li>- Step up relations with the central Iberian area and likewise with the Atlantic seaboard as a whole</li> <li>- Develop the logistics platform in Sines</li> <li>- Continue building high-speed railway lines between Lisboa-Madrid and Porto-Salamanca-Madrid to facilitate the integration of the Atlantic Areas.</li> <li>- Improve the connection between Lisboa-Algarve-Andalucia</li> </ul>	<ul style="list-style-type: none"> <li>- Improve both physical and virtual accessibility</li> <li>- Improve links with the west Iberian Atlantic Area, particularly through cooperation actions in the fields of tourism and research &amp; development</li> <li>- Improve links with the Franco-Spanish area through better articulation via Madrid or by capitalising on the relations provided by Ruta de la Plata (Sevilla – Gijón) or the inland south-north corridor in Portugal (subject to improved cross-border connections).</li> </ul>
<b>Specific Recommendations</b>	<ul style="list-style-type: none"> <li>- Develop tourism associated with the historic and cultural heritage (Porto, Lisboa, Coimbra), religion (Fatima, Ave, Braga - Cavado, Santiago de Compostela)</li> <li>- Support the development of relations between Europe and Brazil / Latin-America</li> <li>- Implement family benefit policies to allow them to reconcile family life and work</li> </ul>	<ul style="list-style-type: none"> <li>- Diversify activities in order orient economy towards the production of higher services</li> <li>- Seek a better institutional coordination to face the need to re-qualify the offer of tourist products in these regions</li> <li>- Re-enhance the image of these regions using territorial marketing techniques, if possible in the framework of cross-border cooperation.</li> </ul>



## GLOSSARY

**AGRO** - Cooperation and enhancement of the rural heritage - Project approved under the community initiative programme Interreg IIIB Atlantic towards the sustainable management of the endogenous resources of the forest and its mycological potential, chestnut tree growing and ecological farming in the Atlantic Area.

**ASDP** - Atlantic Spatial Development Perspective - Project approved under the community initiative programme Interreg IIIB Atlantic that aims to draw up a “territorialised” vision of polycentric development within the framework of a strategy for controlling asymmetries in development between the industrial-harbour zones and inland areas.

**Atlantic Arc Commission** - One of the CPMR’s geographical commissions bringing together 32 regions which contribute actively to the major current European debates. The following activities were identified as priorities: transport, sustainable development, fisheries and research and innovation

**ATMOS** - Atlantic Area Motorways of the Sea - Project approved under the community initiative programme Interreg IIIB Atlantic which aims to foster the development of short sea shipping to complement motorways of the sea, by increasing maritime transport combined with other means of transport with a view to reducing the more polluting and congested transport by road.

**ATN** – Atlantic transnational network of economic and social partners - Project approved under the community initiative programme Interreg IIIB Atlantic, involving Economic and Social Committees of the Atlantic Area or similar regional organizations. Based on their own experiences, these institutions will produce analyses on subjects of shared interest, highlighting common problems and stakes for the Atlantic Area regions.

**BRGM** - Bureau de Recherches Géologiques et Minières - Geological and Mining Research Office

**CAP** – Common Agricultural Policy

**CECODET** - Centro de Cooperación y Desarrollo Territorial da Universidade de Oviedo - Centre of Cooperation and Territorial Development of Oviedo University

**CESA** – Centre d’Études Supérieures d’Aménagement de Tours – Tours School of Planning (now the Spatial Planning Department of Tours University College)

**CIADT** – Comité Interministériel d’Aménagement et de Développement du Territoire - French Inter-ministerial Spatial Planning and Development Committee

**CITERES** – Research Laboratory: Cities, Territories, Environment and Societies - (Mixed research unit of the French national centre of scientific research (CNRS) – Tours University).

**CNRS** – Centre National pour la Recherche Scientifique - National Centre of Scientific Research

**COAST** - Cooperation Organisation for industrial associations specialised in the Aeronautical Sector, Atlantic Area territory base - Project approved under the community initiative programme Interreg IIIB Atlantic. This project proposes to support these enterprises to help them do business by introducing a new method of action: setting up a platform for networking the many firms in the aeronautical sector within the Atlantic Area.

**COASTATLANTIC** - Integrated Coastal Zone Management : towards an Atlantic Vision - Project approved under the community initiative programme Interreg IIIB Atlantic that aims to stimulate the sustainable development of the economic activities and natural resources of the Atlantic Area, through the implementation of Integrated Coastal Zone Management (ICZM).

**Conference of Atlantic Arc Cities** – Established in 2000, the Conference of Atlantic Cities today includes more than 40 cities and urban networks across the European Atlantic Arc who are committed to developing a space of solidarity and collaborative projects. These cities have decided to promote their synergies, develop a series of new co-operation programmes in fields of mutual interest and increase their political weight at a European level.

**CPMR** - Conference of Peripheral Maritime Regions of Europe. Association bringing together 154 peripheral and maritime European regions from 26 EU Member and non-Member States. It develops its activities along the following lines: interregional cooperation, governance, spatial planning, sectoral policies and external cooperation. The CPMR member regions are divided into 6 Geographical Commissions: Atlantic Arc, Balkans & Black Sea, Islands, Intermediterranean, Baltic Sea and North Sea.

**DATAR** - Délégation à l'Aménagement du Territoire et à l'Action Régionale - French Government Agency for Regional Development

**DG REGIO** – Directorate-General of Regional Policy of the European Commission

**EAFRD** - European Agricultural Fund for Rural Development

**Environmental Action Programme** - The European Commission adopted in 2001 the sixth community action programme for the environment, a proposal that outlines the priorities for action on the environment for the next five to ten years. 'Environment 2010: Our Future, Our Choice' focuses on four major areas for action climate change, health and the environment, nature and bio-diversity and natural resource management. The programme stresses the importance of involving citizens and business in innovative ways. It runs from July 2002 to July 2012.

**EPU-DA** - Ecole Polytechnique Universitaire de Tours - Département Aménagement.

**EROCIPS** - Emergency Response to Coastal Oil, Chemical and Inert Pollution from Shipping. Project approved under the community initiative programme Interreg IIIB Atlantic. The objective is to draw up a transferable methodology for transmitting relevant information to actors and decision-makers involved in coastal emergency response operations further to shipping incidents.

**ESDP** – The European Spatial Development Perspective, adopted in Potsdam in May 1999 by the Ministers of EU15 in charge of spatial planning, aims to improve the coordination of national spatial planning policies. It is based on three guiding principles: the development of a balanced and polycentric urban system and a new urban-rural relationship, parity of access to

infrastructures and knowledge, and finally sustainable development through the wise management and conservation of the natural and cultural heritage.

**ESPON** – European Spatial Planning Observation Network

Project 1.1.1 - Potentials for polycentric development in Europe (2002-05)

Project 1.3.1 - The spatial effects and management of natural and technological hazards in general and in relation to climate change, March 2004.

Project 1.3.2 - Territorial trends of the management of natural heritage, 2005

Project 1.4.1 – The role of small and medium sized towns (2005-2006)

**EURATLANTIC** – Joint economic promotion of the French, Spanish and Portuguese regions in North America - Project approved under the community initiative programme Interreg IIIB Atlantic which aims towards the joint economic promotion of the French, Spanish and Portuguese regions in the food processing and automotive sectors in North America.

**European Research Programme** – It is the European Union's main instrument for funding research and development. The Framework Programme (FP) is proposed by the European Commission and adopted by Council and the European Parliament following a co-decision procedure. FPs have been implemented since 1984 and cover a period of five years. The current FP is FP6, which will be running up to the end of 2006. It has been proposed for FP7, however, to run for seven years. It will be fully operational as of 1 January 2007 and will expire in 2013. It is designed to build on the achievements of its predecessor towards the creation of the European Research Area, and carry further towards the development of the knowledge economy and society in Europe.

**FDI** – Foreign Direct Investments

**Feederling** - Feederling traffic enables a hub port to forward containerised goods loaded from a mother vessel to secondary ports or, conversely, to feed the mother vessel, which cannot enter secondary ports.

**Functional Polycentrism**- Aims to encourage better complementarity between the European urban areas, so that they may play a more structuring role in achieving a greater balance between the territories. Functional polycentrism is a concept that can be applied at a wide variety of different levels, according to the kinds of functions that need to be better integrated.

**FSU** - Forward Studies Unit, a Porto-based entity set up within the framework of an agreement between the CPMR and the Portuguese Government

**GEIZ** - Global Economic Integration Zone. Network of interlinked metropolitan regions (MEGA) that are actively involved in the world economy and capable of playing role in redressing the balance of the European territory in relation to the Pentagon.

**GISCO** - Geographic Information System of the European Commission

**GTS** - Guaranteed Traditional Speciality, concerns foods that either use traditional ingredients or are made by traditional methods.

**IAAT** – Institut Atlantique d'Aménagement des Territoires – Atlantic Spatial Planning Institute

**ICREW** - Improving Coastal and Recreational Waters - Project approved under the community initiative programme Interreg IIIB Atlantic the aim of which is to develop the contribution recreational waters can make towards sustainable economic prosperity, and to create a better quality of life by reducing pollution and improving the quality of coastal and inland bathing waters.

**ICT** – Information and Communication Technologies

**ICZM** - Integrated Coastal Zone Management

**IFREMER** – Institut Français de Recherche pour l’Exploitation de la Mer

**IMAR** - Institut de la Mer – Institut of Marine Research

**INIAP** - Institut de Recherche Agricole et de la Pêche – Agriculture and Fisheries Research Institute

**INTERREG II** – Community initiative of the European Regional Development Fund (ERDF) designed to encourage cooperation between EU regions for the period 1994-1999. It is subdivided into three strands: A – cross-border cooperation; B – energy networks; and C (since 1997) – transnational cooperation on regional and spatial planning including management of water resources.

**INTERREG III** - Community initiative of the ERDF designed to encourage cooperation between EU regions for the period 2000-2006. It is subdivided into three strands: A- cross-border cooperation; B- transnational cooperation and C- interregional cooperation. Strand B aims to promote greater territorial integration within the Union through cooperation efforts.

**ISEMAR** – Institut Supérieur d’Economie Maritime – Superior Institute of Maritime Economy

**LANATURAL** - Wool: a natural resource for sustainable development - Project approved under the community initiative programme Interreg IIIB Atlantic. This project aims to develop sheep’s wool as an ecological and renewable substance, by reorganising part of the woollen industry in the Atlantic Area.

**MEDACHS** - Damage of historic public works or transport facilities on the Atlantic coast due to the marine environment - Project approved under the community initiative programme Interreg IIIB Atlantic that aims to provide administrations with a decision-making aid for the maintenance of historic public works or transport facilities.

**MEGA** - Metropolitan European Growth Areas – These are European areas showing a strong potential for growth and competitiveness capable of heavily polarising their sphere of influence. The list of MEGA established by ESPON report 111 in 2005, groups together the 76 functional urban areas (FUA) having obtained the highest scores calculated by cross-referencing demographic and economic indicators. A MEGA, like any FUA, is an area made up of an urban core and the surrounding, peri-urban and rural area it integrates economically through the local labour market.

**Motorway of the Sea** - This expression refers to a direct and scheduled link between two ports provided by permanent rotations of fast boats on which trucks can be embarked.

**Natura 2000 Network** – The Natura 2000 network is a European network of protected natural sites. It aims to preserve biodiversity, especially in rural and woodland areas, and to promote an adapted management of natural habitats and habitats of wild fauna and flora, while respecting economic, social and cultural requirements as well as the regional and local characteristics of each Member State. It is composed of sites concerned by the "Birds" (1979) and "Habitats" (1992) directives.

**NUTS** - Nomenclature of statistical territorial units introduced by the European Statistics Office, Eurostat, in order to provide a single and coherent system for territorial breakdown. It has been used since 1988 in EU Structural Funds legislation. The NUTS nomenclature subdivides the EU economic territory into 77 NUTS level 1 regions, 206 NUTS level 2 regions and 1031 NUTS level 3 regions.

**OCIPESCA** - Observatoire des Pêches et Cultures Marines sur l'Atlantique – Atlantic Observatory for Fisheries and Mariculture

**OSPAR** - The OSPAR Convention (Oslo and Paris) was signed in 1992. It combined and updated the 1972 Oslo convention on dumping waste at sea and the 1974 Paris Convention on land-based sources of marine pollution. The OSPAR Commission defined 6 strategies: the protection and conservation of marine biodiversity and ecosystems, eutrophication, hazardous substances, offshore oil and gas industry, radioactive substances and monitoring and assessment

**PARTNER** - Promoting Accessibility between Regional and Transnational Transport Networks in Europe - Project approved under the community initiative programme Interreg IIIB Atlantic. The objective of this project is to promote a sustainable transport system with assistance to travellers to help them plan journeys within the Atlantic Area.

**PDO** - Protected Designation of Origin, gives value to a product that has certain qualities resulting solely from the particular geographical environment and the skills of the producers in the region of production. All steps in the production process must be carried out in the area concerned.

**Pentagon** – Large global economic integration zone (the core area of EU), defined by the cities of London, Paris, Milan, Munich and Hamburg (cf. ESDP). This area has strong global economic functions and services, which on the whole contribute towards a high level of income and well developed infrastructures.

**PGI** - Protected Geographical Indication, concerns products whose characteristics or reputation are connected to a given geographical area. At least one step in the production process must be carried out in the area concerned.

**R&D** – Research and Development

**RDI** - Relative Development Index

**REGINA** - Towards the establishment of a sustainable partnership for the regional management of scientific and technological knowledge and innovation in the Atlantic Area - Project approved under the community initiative programme Interreg IIIB Atlantic, the objective of which is to establish, for the participating regions, the necessary bases to become areas of excellence (areas which have a good track record of competitiveness, economic growth, sustainable development

and social cohesion) thanks to the application of a common methodology for the management of scientific, technological and innovation-related knowledge at regional level.

**REVITA** – Atlantic strategy for revitalising industrial areas - Project approved under the community initiative programme Interreg IIIB Atlantic. The goal of this project is give in-depth consideration to the urban revitalisation of industrial areas in Atlantic Area to boost the overall competitiveness of industrial areas, encourage coordination and cooperation between the nine participating cities and improve the quality of life of their inhabitants.

**SAL** – Revalorization of Atlantic salt marshes - Project approved under the community initiative programme Interreg IIIB Atlantic that aims to give renewed enhancement to the Atlantic salt marshes as well as to recover and promote the biological, economic and cultural potential of coastal wetlands.

**SME** – Small and Medium-size Enterprises

**SSSAA** – Promotion of short sea shipping in the Atlantic Area. Project approved under the community initiative programme Interreg IIIB Atlantic designed to promote short sea shipping in Atlantic Area and implement solutions to foster coastal traffic between the regions of Atlantic Area by introducing new shipping lines and boosting existing ones.

**TEN-T** - Trans-European Networks

**TEU** - Twenty-feet equivalent units

**TTWAs** - Travel to Work Areas - Are approximations to self-contained labour market areas. They are composed of aggregates of wards where, according to the 1991 Census, the number of people who both live and work in the area was at least 75 per cent of both the total number of people who work in the area and the total number of workers who live in the area.

**UMR** - Unité Mixte de Recherche – Mixed Research Unit

**UNESCO** - United Nations Educational and Socio-cultural Organisation

**VALBIOMAR** - Biotechnological enhancement of Marine Resources - Project approved under the community initiative programme Interreg IIIB Atlantic. The goal of this project is to develop marine produce in particular "by-products", residues not used by industries, which can all the same represent up to 50 % of tonnage. The idea is to create a specialist centre on the scale of Atlantic Area to enhance the specific resources of the Atlantic Ocean.