ESPON
EUROPEAN SPATIAL PLANNING OBSERVATION NETWORK

Final Report, project 1.4.5: Preparatory Study of Spatially Relevant Aspects of Tourism

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This report is developed in a partnership between:

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- Centre for Regional and Tourism Research, Bornholm, Denmark
- World Tourism Organisation, Madrid, Spain
- Universidad de les Illes Baleares, Mallorca, Spain
- Wirtschaftsuniversität Wien, Vienna, Austria
- Norwegian Institute for Urban and Regional Research, Oslo, Norway

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Final Report
22 January 2006

Preparatory Study of Spatially Relevant Aspects of Tourism

This report represents the results of a research project conducted within the framework of the ESPON 2000-2006 programme, partly financed through the INTERREG programme.

The partnership behind the ESPON programme consists of the EU Commission and the Member States of the EU25, plus Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

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Foreword

This Final Report presents the results of the project *Preparatory Study of Spatially Relevant Aspects of Tourism* within the ESPON Programme 2000-2006.

More information about the ESPON programme and the project is available on the ESPON website www.espon.eu.

This is a pilot project. The aim is to clarify what tourism *is* in a regional context, and to assess possible data sources for an analysis of *where* in Europe different kinds of tourism are most important and which spatial impacts tourism may have in those locations. One important outcome of this work is a proposal for a study of tourism and its impacts under the ESPON 2013 programme.

The work was carried out by a transnational project group under the leadership of EuroFutures. Members of the project group were:

- EuroFutures: Hallgeir Aalbu.
- Centre for Regional and Tourism Research (CRT): Peter Billing and Dimitri Ioannides.
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The section describing *Case Denmark: National and Regional Tourism Trends* is based on a contribution by Jie Zhang from the Institute of Local Government Studies, Denmark and Bjarne Madsen from the School of Economics and Finance, University of St. Andrews, Scotland.

Stockholm, 22 January 2007

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PART 1 - SUMMARY

1 Executive Summary: Key messages and findings

1.1 The aims of this study

Like in all parts of the world, tourism is rapidly emerging as one of the key sectors of the economy throughout Europe. It has long been the major engine of economic growth in alpine and other mountainous settlements, cross-border regions, coastal and insular regions, but also cities of varying sizes. The tourism sector has been credited with creating numerous jobs (directly and indirectly) and many observers believe it generates a significant income multiplier.

Unfortunately, despite the obvious benefits associated with the sector there are also numerous negative impacts, in the form of emissions from travelling, a demand for new travel infrastructure and increased pressure on the natural and cultural environment. Tourism is in many places seasonal, and service jobs are often low paid. The latter have led critics to question the value of tourism as a tool for economic development.

Tourism is investigated because of its positive economic impact and its promising future perspectives for many regions, but at the same time there is an obvious risk of detrimental development where new investments in tourism infrastructure - if poorly planned - may serve to weaken the destination's attraction to visitors. Additionally, the propensity for increased travel is not environmentally sustainable, since it inevitably leads to the consumption of considerable amounts of energy and contributes, for example, to emissions and accidents. Careful spatial planning is therefore necessary for combining the economic benefits of tourism within an agenda of long-term sustainable development, both locally and globally.

Despite a huge volume of academic research on the topic, there remains a lack of clear consensus as to what the real benefits and downsides of tourism are. A major problem has always been that it is hard to define what tourism really is and how to measure it.

The aims of this pilot study are therefore to:

- provide an overview over what tourism is and how it can be defined
- describe and analyse the size of tourism at regional level in Europe
- develop a proposal for a future research project that will support effective policymaking.

1.2 Definitions of tourism

Tourism is a complex matter. It can be defined in many different ways, both in a broad and narrow sense. And since it is not a clearly defined industrial sector it cannot easily be statistically identified.

Tourism has over the years received increased attention as a topic for research. It attracts interest from many academic disciplines, and every project and discipline tends to define tourism differently depending on the focus of the study. The very act of travelling itself has to be defined. For example, the distance travelled and the length of stay must be investigated and one must determine whether country borders have to be crossed or not.

Studies of the economic impact of tourism will often focus on employment and value-added. The production system is therefore of interest. For example, we need to investigate the broad collection of firms that produce services partly for residents and partly for guests. Another issue involves the examination of the tourists' identity and determining why they travel. The purpose of the visit is therefore important, whether it is for leisure or business (or both). Also, how does one deal with commuting and shopping trips and so on?

The places that attract tourists – the destinations - can also be described in various typologies based on their main attraction. And finally, perhaps the most popular avenues of research involve the enhancement of our understanding of tourism's impacts, namely its benefits and disadvantages.

In this report the primary interest in tourism is from the viewpoint of spatial planning. We do nevertheless recommend the use of definitions that are based on adopting UNWTO (United Nations World Tourism Organisation) and Eurostat standards and guidance. The current UNWTO definition of tourism is:

> *Activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited.*

The destination is normally understood as the physical space a tourist is spending his/her time. In geographical terms, a destination often consists of a single locality or a group of municipalities. These are units whose definition may vary from case to case, and for which comparative data likely do not exist. For practical reasons and for comparative European studies, we therefore recommend a definition of a destination as a statistical unit:

> *The administrative unit corresponding to the first level of territorial disaggregation of a country in terms of its political and administrative organisation.*

Similarly for the definition of the tourism industry, i.e. the production system, we propose to follow the international industrial classifications in The International Standard of Industrial Classification of All Economic Activities (ISIC) and the Nomenclature Generale des Activites Economiques dans I`Union Europeenne (NACE).

1.3 Data availability at national and regional level

EU and EFTA Member States have adopted the Council Directive 95/57/EC of 23 November 1995 on the collection of statistical information in the field of tourism.

The data collected relate to:

(a) The capacity of collective tourist accommodation establishments:

The types of collective accommodation in question are as follows:
1. hotels and similar establishments
2. other collective accommodation establishments, *inter alia*:
    - 2.1. tourist campsites
    - 2.2. holiday dwellings
    - 2.3. other collective accommodation;

(b) Guest flows in collective accommodation establishments:
The collection shall cover internal tourism, i.e. domestic and inbound tourism; 'domestic tourism` shall mean residents of the given country travelling only within this country and 'inbound tourism` shall mean non-residents travelling within the given country;

(c) Tourism demand:
The collection shall cover national tourism, i.e. domestic and outbound tourism; 'outbound tourism` shall mean residents of a country travelling in another country. The information on tourism demand shall concern trips the main purpose of which is holidays or business and which involve at least one or more consecutive nights spent away from the usual place of residence.

The table below summarizes the basic set of country indicators that at present support the international comparability of tourism activity[1].

Inbound tourism	***Domestic tourism***
Arrivals • Visitors • Tourists (overnight visitors) • Same-day visitors • Arrivals by country of origin • Arrivals by mode of transport (cruise, air, rail, road, sea) ***Arrivals by purpose of visit*** • Leisure, recreation and holidays • Business and professional • Other purposes ***Accommodation*** • Overnight stays in hotels and similar establishments • Guests in hotels and similar establishments • Overnight stays in all types of accommodations establishments • Average length of stay on non-resident tourists in all accommodation establishments ***Tourism expenditure in the country*** • Travel • Passenger transport	***Accommodation*** • Overnight stays in hotels and similar establishments • Guests in hotels and similar establishments • Overnight stays in all types of accommodation establishments • Average length of stay of resident tourists in all accommodation establishments ***Outbound tourism*** Departures ***Tourism expenditure in other countries*** • Travel • Passenger transport ***Tourism Industries*** • Hotels and similar establishments • Number of rooms • Number of bed-places • Occupancy rate • Average length of stay (residents + non-residents)

Data at NUTS 2 and NUTS 3 level is available from Eurostat for the following categories only:

- The capacity of collective tourism accommodation (hotels, campsites etc), for which data is required annually at NUTS 3 level.
- Guest flows at these collective accommodation establishments, showing arrivals and nights spent in different broad types of accommodation. Most information is again required annually, with data down to NUTS 2. Some information, on arrivals, nights spent and occupancy rates, is required monthly for the country as a whole.

[1] Source: UNWTO Compendium of Tourism Statistics.

Unfortunately, not all countries provide all the data requested. There are therefore a number of gaps in the figures.

And more important: there are also differences in definitions. Only in a few cases do the data on arrivals concern transboundary flows of visitors: These are Finland, France, Greece, Ireland, Italy, Portugal, Spain, Sweden and the United Kingdom. Nevertheless, these data do not always result from a census operation, as in the case of France, which extrapolates, using Balance of Payment estimates, observations made only from time to time.

For the remaining European countries, statistics of arrivals refer to arrivals of non-resident tourists in all types of tourism accommodation establishments. The difference between the two concepts is unknown, but surely important.

Finally, the criterion of residence is not always used either, as certain countries still produce their statistics based on nationality (case of Greece, Italy, Portugal). The impact of this difference is unknown.

These differences do obviously complicate the use of the data for comparative purposes. The production of statistical data based on sources of information proper to each country but not comparative, does not lead to general consistency of figures, even if the methodologies seem to be globally consistent.

Statistical material and analyses is published by DG *Enterprise*, which includes a special unit for tourism. The DG's work is focussed on the implementation of Tourism Satellite Accounts (TSA[2]), the consolidation of the European statistical system on tourism, developed under Council directive 95/57EC, and dissemination of work carried out and its results. Reports from DG Enterprise is based on available statistics and do have the same weaknesses as the available data, i.e. differences in definitions that limit the possibilities for meaningful comparative analysis across national borders and a lack of regionalised information. DG Enterprise has paid more attention to information about the tourism industry than the tourists or the destinations. Their reports do most often have a policy focus.

Several *Eurostat* publications do also contain tourism statistics, like the Statistical Yearbook and Statistics in focus, the most recent is the *Panorama* on tourism published in September 2006.

[2] The TSA is a tool for data extraction and analysis of the impact of tourism for the economy. The TSA is based on the national accounts – as a satellite.

1.4 Europe as a tourist destination

Europe is the primary tourist destination in the world as well as the primary generator of international tourism. According to forecasts, tourism will continue to grow in volume, even if Europe's market share is constantly reduced in a worldwide context (Eurostat 2006: Panorama on tourism).

Travel patterns are also changing. Tourism in Europe is, as in the rest of the world, characterised by a tendency to take more trips, more frequently although the average length of each stay has been reduced. The main flow of tourists is from North to South, and within Europe from the Northern to the Mediterranean countries. Signs of a re-distribution can now be seen as tourists start visiting new destinations in Central Eastern Europe.

One factor that has affected the demand side is the changes in the demographic structure of European countries with an increasing number of older people who have a significantly higher spending power than previous generations.

New developments in the transport sector like low cost airlines have been an important factor behind the increasing numbers of travellers. They also have stimulated a shift in the pattern of tourism flows. In general, low cost airlines favour secondary airports and as a result, areas close to such airports have seen tourism growing.

Many tourists tend to visit several places during their holidays. The combined effect of the advent of low cost airlines with the growing trend for city breaks has been an increase in point to point travel.

Tourism is concentrated around the summer and winter seasons. City breaks and travel for culture and events have particularly benefited spring, winter and autumn seasons – even though July and August remain the peak season.

The purpose of visit, i.e. the very reason for travelling is also shifting in character. In the past, a market segment like "visiting friends and relatives" has shown to be more resilient to external shocks. Business tourism (meetings, conferences, exhibitions etc.) is more sensitive to economic developments and seems to follow the economic cycle, whereas holidays and leisure travel, though subject to macro economic fluctuations, seems to be less sensitive to external factors than business tourism. Demand for leisure is more stable than demand for business travel; it is the travel patterns that are affected (more often, shorter stays, shift of destination etc.). Thematic areas like culture, nature, heritage and wellness are growing, while "sun and sea" has witnessed a relative decline in recent years, although it still

remains important. City tourism is growing faster than the traditional "sun and sea" segment.

The statistics we have referred to above concern international travel only. For regional development and spatial planning, domestic travel is even more important since volumes are larger here in most counties and for a great majority of destinations:

- Pressures on destination infrastructure and their physical space are equally important if tourists are nationals as if they are coming from abroad.
- Environmental and congestion problems are also independent of the travellers' passports, since road congestion (especially in August), the use of non-renewable energy and CO2 emissions are local as well as global challenges for spatial planning.

Private accommodation plays an important role in tourism. There is a need for more data on the use of private accommodation and its relative importance in terms of distribution of flows, since the geographical situation of private accommodation and the related travel pattern is likely to be different to the use of hotel accommodation. An increase in the construction of second homes will also need to be included in a more holistic approach on the relation between use of physical space and type of accommodation. This substitution effects towards private accommodation services is an increasing issue of concern for tourism business basically in the main European destination areas.

1.5 Spatial variations in tourism development

To demonstrate different ways of analysing and visualising the spatial aspects of tourism at the various NUTS levels, one simple index (the *Tourism Function Index*, *TFI*) and a composite index (the *Tourism Penetration Index, TPI*) were developed.

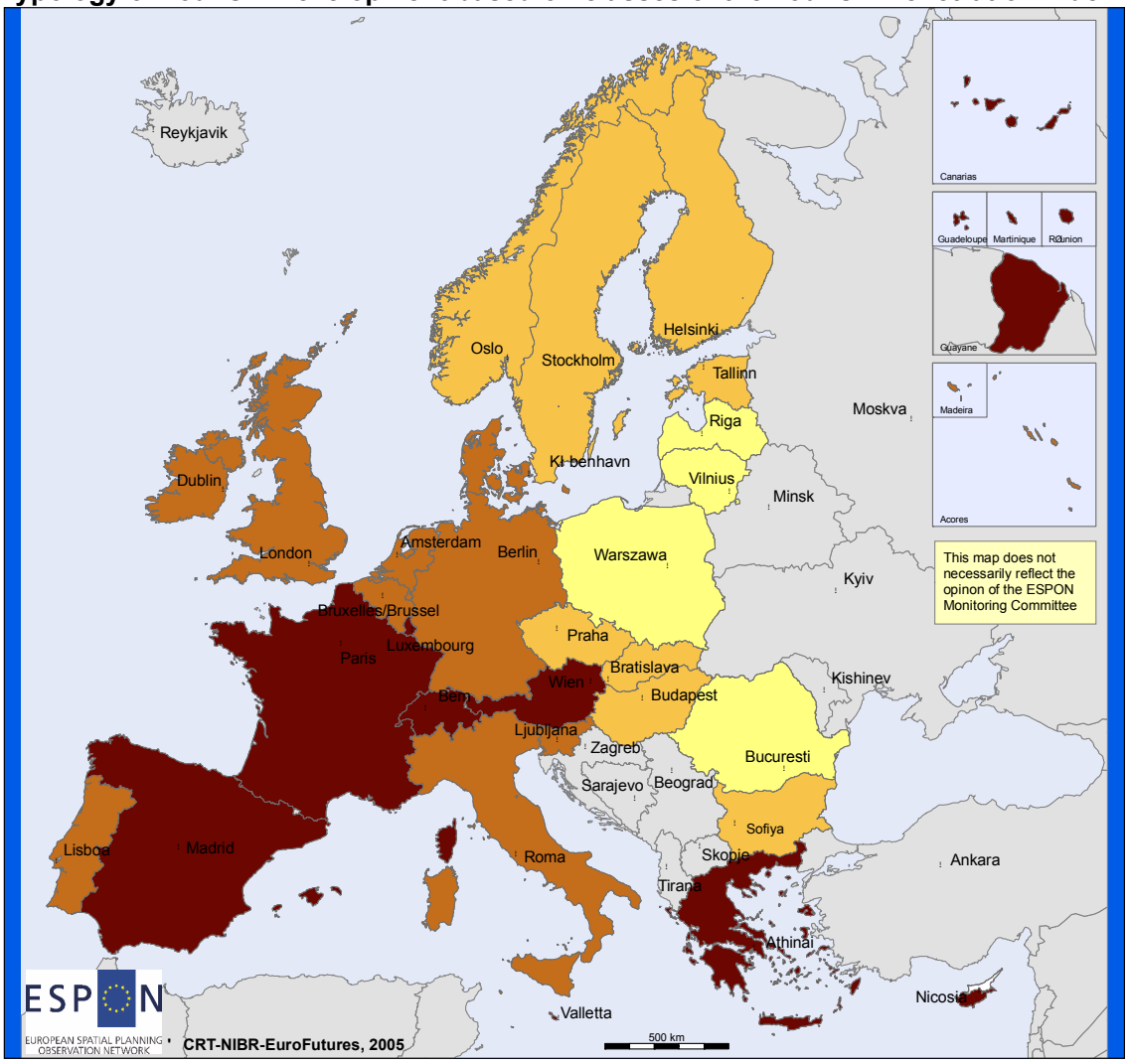
These have provided us with snapshots of tourism's presence and impacts in the ESPON countries. However, these snapshots are only as good as the data they have been constructed from, and in the process of these exercises, a number of concerns has arisen.

Since regional data on tourism is very scarce, the Tourism Penetration Index cannot be produced beyond the national level. The TPI can are calculated at national level and based on figures for foreign visitors spending per population, average number of international visitors per 1000 population and hotel rooms per square kilometre. The smallest countries, i.e. Cyprus, Luxembourg and Malta, have the highest TPIs. Other mature destinations are Austria, Switzerland, Greece, Spain and France (Figure 1.1). By stark contrast a number of eastern European countries demonstrate

a very low TPI. Romania, for example, attracts fewer international tourists than Cyprus despite the fact that it is a sizeable country with a large population. Other minimally-penetrated destinations are Poland, Latvia and Lithuania.

Figure 1.1: Typology of tourism penetration, countries

Typology of Tourism Development based on classes of the Tourism Penetration Index



Typology of Tourism Development

- **Minimally Penetrated Destinations**
- **Medium-low Penetrated**
- **Medium-high Penetrated**
- **Mature Destinations**
- **No data**

' EuroGraphics Assosiation for the administrative boundaries

Source: Eurostat; Norway and Switzerland: National Statistical Offices

Tourism Penetration Index = Unweighted average of three factors: Tourism expenditure per capita, density of tourists per 1000 population and the number of bed spaces per km^2. Standardised with 1.00 as the value for the country with the highest score for each factor.

Eurostat's sub-national data for accommodation were used in the Tourism Function Index analyses for NUTS 0, II and III; however, these data do have certain limitations regarding comparability. The data on accommodation that were used for the TFI were taken from the category "Hotels and similar establishments" which contains data on hotels, bed-rooms and bed-spaces, and in our case we used the latter to calculate the TFI.

The Tourism Function Index is calculated: *TFI= (N*100)/P* where N = number of bedspaces and P is the population or area in km^2. The range of the TFI extends from 0 to infinity. If there is little accommodation in the area the TFI will be close to zero, whereas if there is a lot of accommodation available in a small area or an area with a small resident population then the TFI will be high.

At NUTS II level, the largest TFI's for *population* are found in Algarve (Portugal), the Greek Islands, Austria, the Balearic Islands and northern Italy, all of them exhibiting a high intensity of tourism activity. These destinations also dominate in the table of the 25 highest ranked NUTS II regions in terms of TFI. There are actually only three northern European regions qualifying among the highest 25 regions, with the Finnish island, Åland, being the highest placed. Northern and eastern Europe is strongly represented among the lowest ranked NUTS II regions, particularly the regions in the Baltic States and Poland.

When looking at TFI based on *area*, a higher degree of regional variation appears. With this measurement, the tourism intensive regions extend to include large parts of Italy, southern France, eastern Spain, the mountainous regions of Austria and Germany, as well as southwest England. Once again, well-known tourist destinations dominate the rankings.

The highest ranked NUTS II regions also include the large metropolitan areas, with Inner London and Brussels being in a 'league of their own'. What is demonstrated here is quite simply that these areas, which are fairly small geographically, are very tourism intensive in terms of bed-spaces in hotels.

The figure revealing the highest placed NUTS III regions for population (Figure 1.2) reinforces the position of Greece, Spain, Austria, and Italy as very tourism intensive, but it also show that Blackpool in the UK and Rügen in Germany have an excessive number of bed spaces relative to their population. Perhaps this not so surprising, given the fact that both of these areas have historically been well-known resort areas.

The urban dimension of the TFI based on *area* becomes even more evident at the NUTS III level, as indicated in the table of the highest ranked regions (Figure 1.3).

The top position is held by Blackpool, which together with Paris and London is way above the rest. While, undoubtedly, these areas have a high amount of tourism accommodation stock, it is possible that some other urban areas misleadingly exhibit a much lower area-based TFI because in the case of the British cities all accommodation stock is provided in statistical publications, whereas in many other countries only facilities with a minimum number of bed spaces or rooms report data.

It is therefore necessary to be cautious regarding the way in which these numbers have been calculated. The differences in definitions and registration requirements applied do play a role in our findings which may be deemed to be misleading. In a country like Denmark, only hotel establishments with at least 40 rooms are included in the definition of "registered accommodation" and included in the national accommodation statistics, while in the UK all establishments are registered, including Bed & Breakfast establishments. It is obvious that these differences reduce the value of international comparisons.

More homogenous definitions are therefore necessary in order to make meaningful international comparisons at sub-national level. The TFI can however be used to compare variations in accommodation density between regions within the same country.

Figure 1.2: Population-based Tourism Function Index, NUTS 3 level, 2003

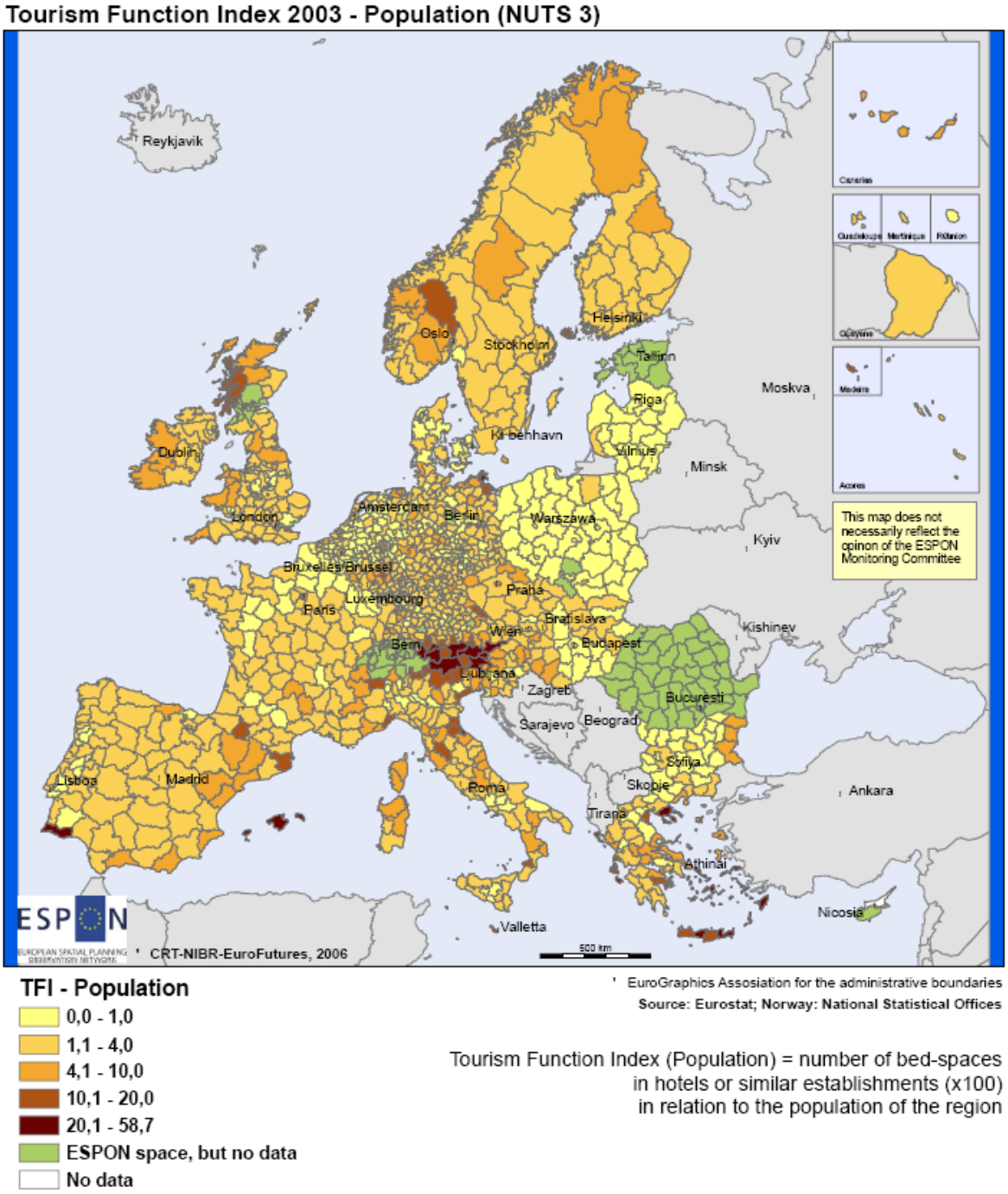
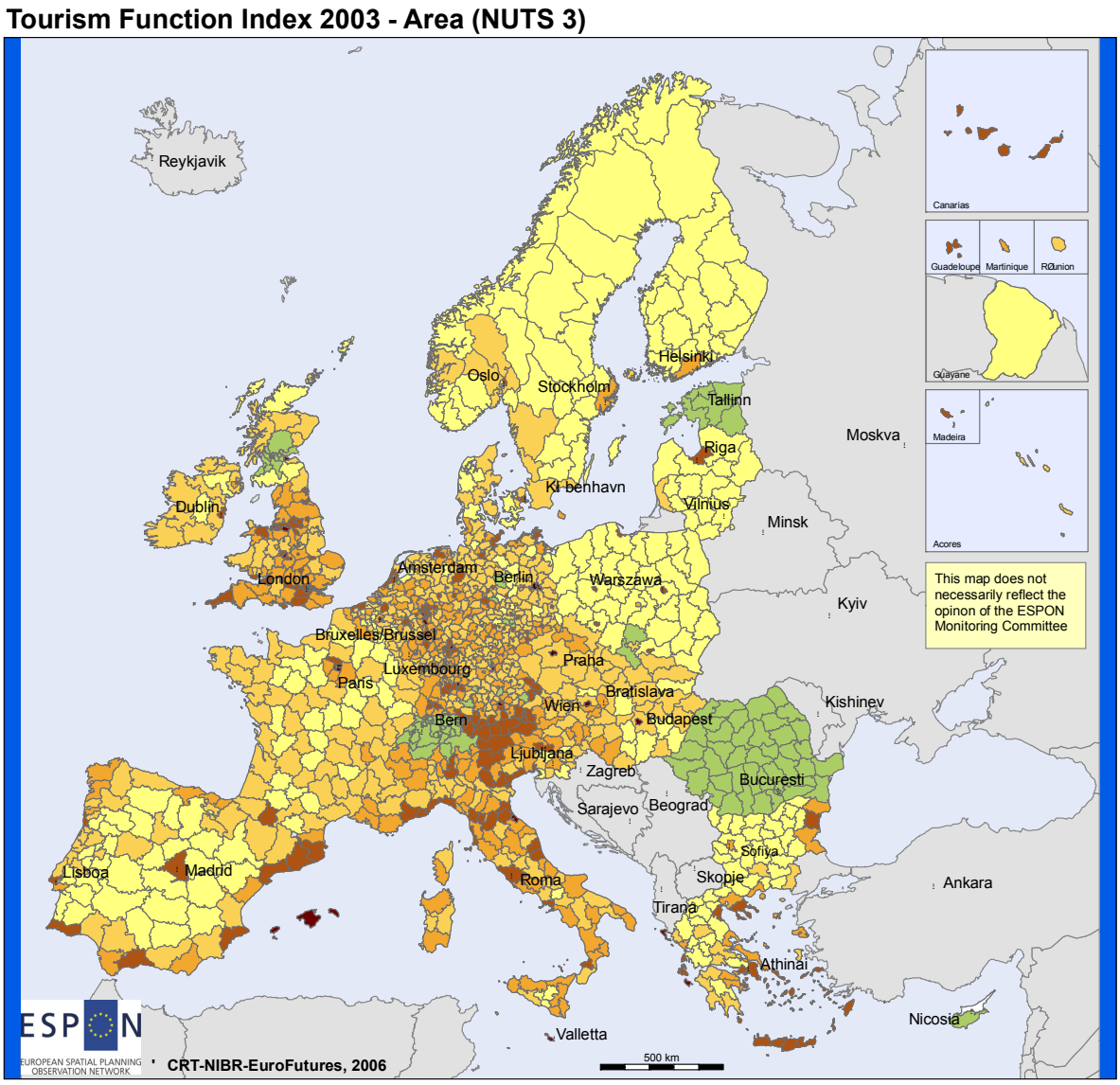


Figure 1.3: Area-based Tourism Function Index, NUTS 3 level, 2003



1.6 Examples of regional analysis

In certain countries a regional analysis of tourism that is also useful for spatial planning and destination management has taken place.

Three examples of such an analysis are in turn: the use of regional Tourism Satellite Accounts in Denmark, border surveys in Spain and the TourMIS database for urban tourism. However, none of these examples can be possibly extended to pan-European coverage with comparable data. There are initiatives for the development of regional TSAs, but there is a long way to go before European countries will use the TSA and the day when data provided will be comparable is even further away. Border surveys are conducted in a limited number of countries, and there is currently no international agreement to develop this line of work in a comparative way. The TourMIS database has destination managers and city administrations as they main user groups, and operates on a voluntary basis.

These examples do, however, show that there is knowledge concerning the spatial effects of tourism to be found in many places around Europe. A future ESPON initiative should capitalise on this. More experience can be gained by establishing a network of researchers within tourism as well as within spatial planning that is able to go beyond the limitations imposed by the current statistics.

1.7 Proposal for an ESPON 2013 research project

As the terms of reference for a new project we propose a full-scale ESPON 2013 project with the main purpose of making it possible to measure and analyse the significant spatial impacts generated by tourism at the national and sub-national levels throughout Europe. Ultimately, it should be the aim of the project to recommend a number of policy and planning initiatives as well as regulatory and management instruments to ensure that tourism evolves in a sustainable manner, in which economic growth priorities are reconciled with the environmental and socio-cultural fabric at the pan-European, national and regional level. The study should refer to the situation in the ESPON member states (29 countries presently, probably 33 countries in the next programming period) and be focused on inter- and intra-national comparability.

We suggest three main areas of study to be in focus:

- *Travel and flows*. To which places in Europe do people go and when? The types of flows – who is going where, for how long, and why? The carriers/movers of flows – how do people move?

- *Economic effects and employment.* Tourist expenditures and consumption – how much is spent on a daily basis by visitors, on what and where? Supply of services (accommodation, transportation, services, attractions). Job creation and economic development (employment structure, business structure).
- *Environmental and social effects*. Physical environment (infrastructure for transportation, accommodation, facilities), natural environment (fuel emissions, water resources, energy resources, land use), social environment (cultural heritage etc.).

As this preparatory study has clearly demonstrated, it will be a substantial task to secure the quality and consistency of data that can provide the foundation for a qualified analysis of the spatially relevant aspects of tourism. Thus, it is paramount to determine how this project will be carried out. We suggest four main requirements for the organisation and methodology as a basis for the proposed project

- *Network of experts.* A substantial and sustainable network should be created, consisting of a core group of academic experts who will work closely with relevant national and regional authorities, as well as Eurostat and the ESPON-network. The aims of the research network are to utilise the full body of knowledge available throughout Europe, to get better access to national data, to facilitate the calculation of the effects of definitional differences and variations in the way official statistics are collected, and to analyse the European survey proposed below.
- *Qualification of data and indicators*. Most fundamentally, the tourism-related data has to be complemented and harmonised in terms of concepts and definitions, and the methods of compilation and calculations should become consistent. This relates to all of the above-mentioned focus areas, i.e. tourism-related economic, environmental and social impacts. Particularly vital areas are:
    - To make it possible to compare Eurostat's accommodation data at the sub-national level, i.e. to calculate the effects of the differences in definitions and to suggest a way to harmonise these data.
    - To make it possible to compare visitor data between countries, i.e. to calculate the effects of the various ways visitor data are produced and to suggest how they can be harmonised and made comparable.
    - To make it possible to compare the total tourism sector, not only international tourism, i.e. to integrate domestic travellers in the total figures for visitors.

- To make it possible to compile additional regional tourism data concerning economic impacts from tourist expenditure, tourist activities (including one-day tourists) and private accommodation.

- *A European survey*. In order to capture the flows of tourists, we suggest carrying out a survey about travelling habits throughout Europe. This can be a postal survey or a telephone-based interview. The techniques used should be selected on the basis of cost-efficiency, and may be different from country to country. The questions shall focus on why people are travelling, how often, where, domestic vs. foreign trips, accommodation used, money spent on the travel and in the destination, etc. The benefit of this survey is that it will provide comparable data. The data will give access to information currently unavailable as the definitions used will be the same in all countries. And equally important: the data collected can be used for the recalculation exercises necessary to make official statistics comparable for the national as well as the sub-national levels. There are no prospects for significant improvements of official statistical data at sub-national level within the timeframe for ESPON 2013. The best way to mitigate these deficiencies is to produce "formulas" that may be used to compare statistics that are produced in different ways and/or with different methods. The survey will be a key measure in this respect.

- *Comparative and case-study based analysis.* The qualification of data and indicators should make it possible to carry out comparative analysis between nations (NUTS 0) and regions (NUTS 2-3) regarding substantial aspects of tourism. However, this will not be possible for all aspects, and consequently some analysis has to be case-based. The advantages of a case-study approach are the possibilities to focus on particular regions where tourism is of significant importance and to take a closer look into the policy challenges in regions.

In order to capture the flows of tourists, we suggest carrying out a survey about travelling habits throughout Europe. The benefits of a survey is that it will provide comparable data as well as data that can be used for the recalculation exercises necessary to make official statistics comparable for a sub-national level.

Through the improved data collection and compilation, comparative analysis and case studies generated by the network of experts it should be possible to achieve three major outputs in a full-scale project:

- *Typologies of tourism based on spatial dimensions.* A typology of destinations can be created based on the density of tourism accommodations in each region. Another typology could be based on demand-side data and yet

another could relate to the degree to which tourist destinations are vulnerable to environmental problems. Each typology is useful for creating maps indicating the spatial variation of tourism as it is influenced by or it influences various factors. The maps, in turn, can be used to guide policymakers in devising targeted actions that closely match the contingencies of each destination.

- *Composite depiction of tourism impacts.* In essence, tourism has inter-linkages with numerous areas of activities. These include, among others, travelling, economic activities and environmental effects. Thus, it is imperative that the proposed project ties into the other ESPON projects in a synergetic way. Thus, the project should also provide a composite depiction or tourism impacts by substantially relating to other ESPON-projects, as soon as comparative data are available for such exercises.
- *Planning and policy recommendations*. Ultimately, the project should generate recommendations for tourism-related spatial planning and policy initiatives at various levels of governance. These recommendations are envisaged to enlighten a number of planning and policy areas, most importantly transportation (congestion, pollution), infrastructure (land use, zoning), attraction management (human-built, natural), visitor management (carrying capacity, seasonality) and sustainable environment (water, energy, climate change).

The anticipated budget for this work is ca 1 mill €. We have also been asked to propose a study of half that size. With a significantly reduced budget we will have to abandon the extensive survey we propose to carry out in order to get a set of comparable data on travelling for all countries involved, which is a very resource-demanding undertaking.

2 Scientific summary covering the main concepts and methodologies

2.1 Structure of the project

The project was organised in six Working Packages:

- *Working Package 1 – Concepts and definitions:*

  To establish the platform for further work, i.e. establish the definitions used, the concepts regarding types of tourism, types of tourists, and types of tourism regions, and a critical review of state-of-the-art literature.

- *Working Package 2 – Patterns and trends:*

  A review of existing data sources regarding tourism and travel patterns, including Eurostat, UNWTO and TourMIS (the Tourism Marketing Information System). Available regionalised data for the ESPON countries was organised into a database, which allows variables to be accessed and analysed together with other data from the ESPON database.

- *Working Package 3 – Spatial effects of tourism:*

  Data were analysed with the purpose of establishing a typology of tourism regions based on the density of tourism establishments and the impact of tourism on regions.

- *Working Package 4 – Future ESPON research:*

  A proposal for a project on the spatial impacts of tourism for the next ESPON programme was elaborated. The proposal take into consideration the present ESPON geography of 29 countries and a possible enlargement of ESPON participation with the remaining EFTA countries as well as Turkey and the countries in the Balkans. Two proposals of different scope will be developed, one based on a budget of 500,000€ and one for a budget of 1,000,000€.

- *Working Package 5 and 6 – Co-ordination and reporting* and *ESPON networking:*

  As there are rather demanding reporting requirements for ESPON projects, time was allocated to the production of this Interim Reports and Progress Reports. The project team did participate in the two ESPON seminars in 2006 as well as in one Lead Partner Meeting. One project workshop and two core team meetings have been arranged.

2.2 Definitions and concepts used

One of the tasks of this project was to define tourism in a way that allows measurement and comparison between regions. We do recommend the use of definitions that are based on adopting UNWTO and Eurostat standards and guidance. The current UNWTO definition of tourism is:

> *Activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited.*

The destination is normally understood as the physical space a tourist is spending his/her time. In geographical terms, a destination often consists of a single locality or a group of municipalities that is units whose definition may vary from case to case, and for which comparative data likely do not exist. For practical reasons and for comparative European studies, we therefore recommend a definition of a destination as a statistical unit:

> *The administrative unit corresponding to the first level of territorial disaggregation of a country in terms of its political and administrative organisation.*

Similarly for the definition of the tourism industry, i.e. the production system, we propose to follow the international industrial classifications (ISIC and NACE).

Important concepts when studying tourism and its impacts for regional development and spatial planning are related to

- tourism flows
- economic contributions
- sustainability impacts.

We have in this pilot study mainly described tourism flows as this is the sector where some data are available. We have also suggested how one in the next ESPON project can work on all three concepts to enhance knowledge.

3 Networking

We have in the course of the project participated in the following programme meetings:

- Inception meeting with the Coordination Unit, Luxembourg, February 2006.
- ESPON seminar, Salzburg, March 2006.
- Lead partner meeting, Brussels, April 2006.
- ESPON seminar, Espoo, November 2006.

A project workshop was arranged in Copenhagen in June 2006. The core team met twice, in May and September.

Three project partners have been parts of ESPON networks through other functions and projects:

- NIBR is the National Contact Point for Norway and have in this capacity participated in all major ESPON events since Norway became a full ESPON member state. NIBR was the lead partner in project 2.1.5 "Fisheries" and a partner in a number of other projects.
- EuroFutures was a partner in project 2.3.1 on "Application and effects of the ESDP in the Member States",
- CRT was a partner in project 2.2.2 on "Enlargement".

The project has undertaken its work in line with the common ESPON scientific platform and has actively used the different ESPON Guidance papers in its work.

4 Research issues and data gaps to overcome

This project is a pilot study. The main aim of the work is to assess data availability and to identify research issues for an ESPON 2013 project. The entire final report does, accordingly, consist of a discussion of concepts, issues and data, including proposals for further ESPON work.

The analysis of tourism patterns in Europe from a sub-national perspective requires a combined set of initiatives:

- identify existing information that is available but not included in the Eurostat database,

- identify national and regional expertise in the measurement of regional tourism activity. In this regard, the experience in regionalising national TSA exercises (Norway, Finland), the implementation of regional TSAs (Andalucía, Scotland), the application of economic modelling techniques – impact type models and general equilibrium models – in different regions (Spain, Portugal, Italy and others), should be analyzed and evaluated,
- creation of a network of regional and national research institutions or governmental bodies in order to set up guidance specifically for regions in order to improve statistical background and analytical possibilities.

This set of initiatives is aimed to complement the present situation in which sub-national data are understood only as disaggregated national survey data.

PART 2 – ANALYSES

5 Conceptual background

Everyone purports to know what tourism is, but it is nevertheless not an easy term to define in a manner that is comprehensive and simultaneously one that is possible to use for analytical purposes. We must, therefore, start with the most basic question – namely: what is the topic we are going to study? The first section of this chapter describes the issues that come to the forefront when we are addressing the topic of tourism in the context of spatial planning. The second section gives an overview of the state-of-the-art in tourism research. And finally the third section proposes a definition of tourism in the context of spatial planning – both for the destination and for the tourism industry.

5.1 The aims of this study

5.1.1 Why tourism is important for spatial planning

Like in all parts of the world, tourism is rapidly emerging as one of the key sectors of the economy in a variety of European contexts. It has long been the major engine of economic growth in alpine and other mountainous settlements, cross-border regions, coastal and insular regions, but also cities of varying sizes. The tourism sector has been credited with creating numerous jobs (directly and indirectly) and many observers believe it generates a significant income multiplier. In an era where many traditional activities such as agriculture, fishing or manufacturing have witnessed substantial decline in most localities, tourism has been boosted as one of the key sectors for economic restructuring.

Unfortunately, despite the obvious benefits associated with the sector there are also numerous negative impacts. The latter have led critics to question the value of tourism as a tool for economic development. Some academics have also argued that government officials and industry representatives regularly exaggerate the positive impacts of tourism in order to boost the sector's image.

Despite a huge volume of academic research on the topic there remains a lack of clear consensus as to what the real benefits or downsides of tourism are. A major problem has always been the difficulty in defining what tourism really is. Is it an industry? Is it an economic phenomenon? Is it a societal trend? If it is an industry what is its actual product? If it is an industry how do we measure it? How does one account for the non-economic aspects of tourism (such as the experiences of viewing a landscape or the feelings that result from hiking through a national park)?

In a certain locality how does one know, which businesses are supported by tourists or visitors? After all, there is not just one economic sector that neatly fits under the umbrella of tourism; rather, tourism transcends numerous sectors of the industrial classification system (Statistical Classification of Economic Activities in the European Community – NACE). While in some resort localities it is easy to assume that a major portion of a business' (like a restaurant) receipts come from tourists, this is not as clear-cut for such a business in a major urban environment.

Beyond these economic questions there are numerous other issues that have occupied the attention of researchers in recent years. For instance, how can we measure the carrying capacity of touristic environments? Is there a way to handle a large number of arrivals without detrimental impacts on the very attractions that bring them there in the first place? How can tourism lead to a greater degree of social equity?

5.1.2 Research questions

The ultimate purpose of this pilot project is to pave the way for an ESPON research project on the spatial impacts of tourism that may support effective policymaking.

The methodology for assessing tourism and its impacts has improved drastically over the last few years. For instance, the emergence of the Tourism Satellite Account (TSA), a UN recognised conceptual framework for the measurement of tourism's economic contribution system based on a country's national accounts allows analysts to more effectively gauge tourism's contribution to GDP. The TSA methodology allows "the international comparability of data related with the measurement of the economic impact of tourism" (UNWTO 2000: p. 3). Importantly, it is a powerful tool for policy and strategy-making because it can demonstrate the magnitude of the tourist industry both in economic as well as physical terms.

And yet, we still have so much more to learn about the tourism sector. It's not enough to recognize tourism's contribution to the overall national economy. To develop EU regional policy we need to be able to identify tourism's economic

contribution and its impacts at the sub-national (regional and local level). We also sometimes need to look at a cross-border region (one which transcends two or more national entities) and assess tourism's overall effects. To do this is a complicated exercise and one which requires the commitment of a vast amount of resources (both financial but also intellectual).

It is an overriding aim of this pre-study to identify methodologies of assessing the magnitude of the tourism sector as an industry at the sub-national level and also for comprehending its impacts on the economic, social, and environmental fabrics of a variety of destinations/spatial settings. Naturally, because the scope of such an approach is boundless, for this first step it is recommended that the research should focus mostly on the economic aspects of tourism with an aim of understanding its magnitude but also its contribution to regional economic development. Among the guiding questions that could be examined are the following:

1. How can tourism be defined in the context of the ESPON space (currently 29 countries)?
    a. What kind of definitions for regions and destinations should we rely on?
    b. How can we develop functional types of definitions that take into account the vast array of destination types and the different types of travel purposes?
    c. How can we use the current standard industrial classification system (NACE) to isolate what the tourist sector is in economic terms for different types of destinations and regions?
2. To what extent does the economy of a specific locality depend on tourism? How can the existing TSA conceptual framework be adapted to assess tourism's contribution at the sub-national level?
3. What are the key characteristics of tourism flows in and out of Europe as well as within the ESPON space? How do these flows (both domestic and international) relate to the type of destination that evolves?
4. What kind of destinations can be identified? Where in the ESPON space do we find regions where tourism is particularly important, and how can these regions be characterised? Which spatial impacts does tourism have?

The precise definition of what is meant by tourism will be an important aspect of the study. From an economic standpoint, it is essential to adopt as wide a definition of tourism as possible – namely treating tourism as an export industry albeit one where the product is consumed by the buyer at the place of production. In other words, if people come from outside a region (for whatever purpose – recreation, business, shopping, etc.) and they spend money in that region then they will be

treated as tourists and the income earned from their expenditures will be treated as tourism income. Tourism income can be generated at the national level by foreign tourists or can be generated within a country (at the regional or local levels) either by foreign visitors or domestic tourists who are coming from another part of the country. In a cross border situation where people cross over (even for a few hours) to shop or to visit an attraction, these people can also be treated as tourists.

Better comprehending the role of tourism at the sub-national level in various countries would allow the development of more targeted recommendations that would better shape the community's regional policies.

5.2 Tourism as a topic for research

5.2.1 Growing research attention

It is only over the last two decades that the study of tourism as an important academic topic has gained increasing popularity as evidenced by the growing number of books, monographs, edited collections, and journal publications. Each year more and more regional, national, and international conferences are held relating to travel and tourism with delegates examining a broad spectrum of topics relating to this global phenomenon.

Importantly, tourism has grabbed the attention of researchers from a variety of fields including anthropology, business administration, economics, geography, political science, sociology, and urban studies. Representatives of these and other disciplines have grappled with various aspects relating to travel and tourism including: the examination of definitional issues; the political economy of tourism; demand and supply-side studies; impact assessment; tourism and sustainable development; and tourism planning and policy-making. While the multi-disciplinary aspect of tourism research is one of its major strengths (since it allows various viewpoints) it is arguably also its greatest weakness because as Page (2003: 5) argues "'*there is no overarching academic agreement on how to approach the study of tourism; it really depends on how you are looking at tourism, and the perspective you adopt*".

Much of the growing attention on tourism is commonly justified by references to the alleged size of the tourist industry and its growing economic effects for destination areas. Often, a book on tourism will begin with evidence as to the industry's magnitude in terms of indicators such as its contribution to gross domestic product, or its employment and income multipliers. The authors of such writings go on to justify their particular study of tourism through claims that because of its enormous

size as an industry and in terms of persons employed it surely must be worthy of further intellectual study.

But, of course, there is more to tourism than its size – which is, by the way, a matter for much debate. Fortunately, recent research indicates with increasing regularity that the main reason for continuing to investigate tourism is that it remains weakly conceptualized both as an economic sector, but also more broadly as a phenomenon of contemporary society/culture. Frequently, observers blame the case-study driven research (a large proportion of tourism studies are of the case-study variety) and the paucity of comparative work that dominate in the literature as the main culprit behind this need to improve the conceptualization of tourism.

Fortunately, in the last few years many researchers have heeded Britton's (1991) call for more rigorous theorization of tourism – following a political economy approach (see for instance Agarwal et al 2001; Williams 2004). Reflecting the necessity for better conceptualization of tourism, Judd (2004) maintains his conviction that social scientists who grapple with issues ranging from globalization to economic geography will never give tourism the research credit it deserves unless it is treated like other industrial sectors such as the automobile sector. Such statements indicate that tourism deserves its rightful place in the social sciences precisely because it is theoretically challenging. Questions that remain to be addressed are many, including: what role does tourism play in capitalist accumulation; in what manner does commodification relate to tourism; in what manner does tourism create social meaning for places; what is the role of the state in the production of tourist activities and, specifically, how is tourism shaped by the overall regulatory framework; how do spaces of tourist consumption connect back to the production of tourist space?

5.2.2 Broad and narrow definitions of tourism

When dealing with specific issues concerning tourism, like measuring the magnitude of the tourism-related industry or seeking to develop sector-specific policies, there is a need to comprehend "how tourism is being defined" (Gunn 2002:8). Precisely because it is such a complicated phenomenon there is no readily agreed upon definition. Tourism cannot easily be categorized as an activity. It is not an industry in the same manner as, for example, the automobile sector, since there is no single identifiable commodity produced. In addition to its economic aspects, tourism involves spatial, environmental, societal/cultural, and political dimensions. Then there is the problematic issue of being unable to easily disaggregate the consumer (tourist) from the industry itself; after all, for tourism to occur the consumers have to be actively involved in the production of touristic experiences. Such problems

often mean that most analysts end up choosing a designation of tourism that best fits the aims of their particular research agenda.

It comes as no surprise, therefore, that almost every text dealing with tourism begins with attempts to define terms like travel, tourism, the tourist industry, the tourist or traveller and so on. Perhaps the most frequently used definition is the simple one describing tourism as the act of travel for at a minimum of 24 hours and a maximum of 365 days away from one's home and the provision of a combination of services to support this act; the purpose of this travel can either be recreational or business-oriented. The recognized definition of a tourist is someone who is "travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited" (official definition of the UNWTO). The distance between the origin and destination does not matter (although some definitions have used the qualifier of a minimum distance from home of 160 kilometres). Others use broader definitions to include same-day visitors since their argument is that from an economic standpoint it does not matter if one stays overnight or not, as long as that person injects currency into the destination's economy. From this perspective then, shoppers who travel, say from one city to another just for the day may be considered tourists in an economic sense.

Whether day-visitors and tourists can actually be placed in the same category is sometimes a subject for heated argument. Other issues that have often been debated include the following: (1) how should we classify second home owners or the owners of summer cottages in a particular locale – often people own these second homes in countries other than their own; (2) where do visitors such as cruise ship travellers who only spend a few hours at any particular destination fit in the spectrum of tourism; (3) how do we classify same day travellers who cross a border such as the one between Austria and Germany for shopping or to attend a show?

To deal with these issues the United Nations World Tourism Organization (UNWTO) has issued guidelines for classifying travellers and tourists. These differentiate, for example, between tourists and non-tourist travellers like migrants and commuters. Tourists can be further divided into domestic and international tourists and then each of these categories can be further subdivided according to purpose of travel including things like visiting friends and relatives, business travel, and pleasure. Page (2003) argues that perhaps a more useful definition of tourism – given the complexities involved – would be the one by Chadwick namely 'the field of research on human and business activities associated with one or more aspects of the

temporary movement of persons away from their immediate home communities and daily work environments for business, pleasure and personal reasons' (1994: 65).

Regardless of what is an appropriate definition for tourism it is obvious as Gunn (2002) and Page (2003) have pointed out (based on Chadwick 1994) this phenomenon is associated with at least three concepts namely: (a) the movement of persons; (b) an economic sector or an industry; and (c) a broad system of interacting relationships of people, their needs to travel outside their communities, and the services that attempt to meet these needs by providing products.

Yet another way to look at definitions of tourism is by differentiating between demand (the consumer) and supply (the industry). On the demand side rest the consumers, the tourists themselves, whereas on the supply-side lies the tourist production system, the ensemble of businesses and activities that make tourism possible. Certain observers argue that the best way to examine tourism from an economic standpoint is to treat it like any other industry (namely according to what is produced) and not confuse, as is so often the case, the consumers' motivations with the end product. Judd (2004) suggests viewing tourism as a commodity chain, leading ultimately to a common product, namely the creation of tourist experiences, is well worth investigating. However, others (e.g., Mosedale, in Ioannides 2006) express reservations of the applicability of commodity chain methodology to tourism, given the dual nature of tourist experience (the experience is personal and varies by tourist type), and because the intangible nature of various tourist services does not lend itself to Input-Output analysis (which constitutes part of commodity chain methodology).

Smith (1998) maintains that even though we cannot label tourism an industry, the tendency in economic terms to define tourism by examining the consumer (the tourist) is misleading since it is akin to defining the automobile industry by examining the drivers or the medical industry by looking at patients. Others like Leiper (1990) have countered that it is impossible to view tourism like any other pure economic sector because it is only *partially* industrialized, meaning that a significant part of tourism involves non-industrialized (experiential parts) parts like hiking, gazing on beautiful scenery, or taking photographs. According to people like Leiper, it is the totality of the both the businesses that contribute to the production of tourist experiences as well as the intangible (non-market value) experiences (like gazing on the Parthenon) that make tourist the unique thing that it is.

Debates such as the one between Smith and Leiper will undoubtedly continue. However, as Debbage and Daniels (1998) point out the conceptual difficulties arising from the existing conundrum of disentangling the consumer (tourist) from the industry or production system 'should not be used as a reason to ignore this important part of the space economy. In fact, the travel production system is one of

the most intellectually intriguing sectors of the economy [precisely] because it challenges conventional paradigms with regard to [traditional] economic base theory and the consumer/producer conceptualization of services' (30).

Ultimately, it is important to convey that tourism has to be viewed holistically as a system. As Gunn points out, in academe tourism is multidisciplinary drawing the attention to researchers from a variety of fields. As an activity it is shaped by both demand and supply. From the demand perspective one has to look at the very least at the diversity of traveller preferences and motivations. From the supply perspective there is the immense collection of businesses but also public or semi-public entities that combine their activities to shape the tourist experience.

5.2.3 The tourism production system

Based on the previous section clearly one of the most intriguing areas of research that continues to puzzle academics and policymakers, especially those wishing to measure tourism's magnitude in economic terms, is whether or not tourism can be neatly defined as an industry. For the purposes of simplicity, we will ignore at this stage the problem emerging by Leiper's partial industrialization concept and choose rather to reflect only the so-called supply side of tourism. Smith (1998) asserts that, in final analysis, the tourism industry is "a convenient way of referring to the large and fragmented collection of firms producing commodities that support the activities of people temporarily away from their home environment" (32). He acknowledges it is hard to neatly lump tourism into a solitary sector because of the large number of businesses involved in the production of tourist experiences but also because there is the perpetual problem of a lack of credible tourist statistics. For instance, tourism employment can be measured in various ways, not to mention that credibility problems often arise because of the quality of the data sources.

The fact that an industry can be defined as a group of businesses that produce essentially the same type of commodity (or at least similar commodities) – using essentially the same technology – precludes tourism from being classified as a single industry. Smith maintains that "tourism is not an industry because the commodities produced by tourism businesses are viewed as heterogeneous and produced by fundamentally different technologies. There is no apparent commonality between moving people from place to place (transportation) and helping them stay still (accommodation) (1998: 36). Nevertheless, there is a functional linkage between the airlines, the hotel industry, and other services in that "they facilitate activities by people temporarily away from their home environment" (36). Thus, even though we cannot reflect on tourism as a single sector we can, according to Smith, think of it as a satellite account, essentially the "satellite" being

a subset of a country's national accounts (see discussion further down). Before launching into an investigation of the Tourism Satellite Account (TSA), however, it is well worth examining a couple of simple approaches that are readily available to researchers for determining what businesses within an economy are at least tangentially tied to tourism.

Simple approaches

If one wants to examine how many jobs in a region are tied to tourism-related businesses, it immediately becomes clear there is no single industrial classification that neatly encompasses the whole range of such activities. In fact, one must dig deep into the Standard Industrial Classification (NACE) system of any given country to find sectors with a relationship to tourism. To make matters worse, while some businesses could be argued to be purely tourism-oriented (like travel agencies and tour operators) others cannot be defined as easily since they cater to both residents and tourists. What portion of a particular company's business depends on tourism will very much depend on the context where that company operates. For instance, a restaurant in a resort community (like Bornholm or Lillehammer) may entirely depend on tourists for its business whereas one in a large metropolitan area (in Athens or Vienna) may draw much of its clientele from local consumers.

Roehl (1998) suggests that despite its obvious limitations, an examination of any country's (or within that particular country any region's) industrial classification system allows us to view tourism within the context of the broader economy and can facilitate cross-regional and cross-national comparisons. What Roehl has done for the North American Industrial Classification System (NAICS) is to isolate a multiplicity of sectors, which bear at least some relationship to tourism. In this report, Roehl's list has been adapted to define economic sectors within EU regions that have at least some relevance to tourism. Thus, in addition to sectors, which may be viewed as obvious, such as travel agencies, tour operators, and hotels, it is recommended that we include various attractions such as museums, historical sites, or amusement and theme parks (Table 5.1).

Table 5.1: Selected NACE codes with a relationship to the tourism production system

Code	Code (continued)
H. Hotels and restaurants	K. Real estate, renting and business activities
H. 55.10 Hotels	K. 71.10 Renting of automobiles
H. 55.20 Camping sites and other provisions of short-stay accommodation	O. Other community, social and personal service activities
H. 55.21 Youth hostels and mountain refuges	O. 92.00 Recreational, cultural and other activities
H. 55.22 Camping sites, including caravan sites	O. 92.33 Fair and amusement park activities
H. 55.23 Other provisions of lodgings n.e.c.	O. 92.34 Other entertainment activities n.e.c.
H. 55.30 Restaurants	O. 92.52 Museums activities and preservation of historical sites and buildings
I. Transport, storage and communication	O. 92.53 Botanical and zoological gardens and nature reserves activities
I. 60.10 Transport via railways	O. 92.60 Sporting activities
I. 60.21 Other scheduled passenger land transport	O. 92.61 Operation of arenas and stadiums
I. 60.22 Taxi operation	O. 92.62 Other sporting activities
I. 60.23 Other land passenger transport	O. 92.70 Other recreational activities
I. 61.00 Water transport	O. 92.71 Gambling and betting activities
I. 62.00 Air transport	
I. 62.10 Scheduled air transport	

Table based on Roehl's (1998) analysis of NAICS data. (Pages 63-64.)

It is, of course, important to use judgment in defining a particular area's tourist industry; in other words, while in one region a particular sector (like museums) may rely entirely on locals in another area the same sector may be almost entirely dependent on tourists. Determining whether or not a particular sector in an area is tourism-dependent or not does require a degree of familiarity with the economy of that area although it is possible through an investigation of data to isolate if certain sectors are over-represented (producing more than what is needed for its own use

and selling the excess to non-local markets) in a particular economy compared to the national average.

The simplest measure for determining the specialization of a particular region in certain economic sectors is the location quotient (LQ). Essentially, what is needed to calculate the LQs are employment data by sector for both the national and regional economies. If used cautiously – allowing for the methodology's various shortcomings - this measure can be used to reveal if a particular local economy is strong (export-oriented) in particular sectors or not; and by the same token, it allows one to infer what economic opportunities may be available at the local level.

Simply stated the LQ is the first step in terms of isolating particular economic sectors and demonstrating whether or not these are over-represented or not compared to the national setting. If they are then it is assumed these sectors are export-based and, thus, in the case of tourism this means they are ones that are net gainers of visitor euros (income exceeds leakages). So if the bed and breakfast sector in a certain county has a LQ over 1.0 (net exporter) then it is export-oriented (produces more than is needed to cater to local needs) and may be assumed to cater to visitors. If, by contrast, the restaurant sector for the same county has a LQ below 1.0 then it is assumed to not be part of the tourism economy as it caters mainly to local needs.

Another step that is useful when examining NACE data is to determine the competitiveness of local sectors by examining their growth or decline. Generally speaking, these forces of change arise in three ways. (1) Local growth or decline stimulated by overall national growth or decline; (2) local growth or decline stimulated because of a local concentration of businesses in faster or slower growth economic sectors; and (3) local growth or decline arising from more or less competitive firms locally than the national average for that sector. Shift-share analysis is the technique used to calculate the magnitude of such factors; it is important to underline that it is a descriptive tool that does not indicate the cause for the employment change but it can be a useful point of departure for further analysis.

The underlying purpose of shift-share analysis is to indicate which sectors - in this case tourism-related sectors, are not as efficient as they should be compared to the national average. Then a locality may identify (if policymakers choose to do so) ways to improve the efficiency of these existing businesses.

More complex approaches – The TSA

The techniques discussed above are simple, serving as first steps to give an overall general picture of the degree to which a locality depends on tourist related activities. A more robust method is the TSA, originally based on the UNWTO's (1994) definition that "tourism is the set of activities of a person travelling to and staying in places outside his/her usual environment for less than one year and whose primary purpose of travel is, other than the exercise, an activity remunerated from within the place visited" (Smith 1998: 36). Among the issues considered in this definition is the fact that visitors include overnight tourists but also those arriving just for the day. Tourist expenditures include the money spent before, during and after the trip as part of the total travel experience. Only the direct spending of tourists on trip-related goods and services can be counted as tourist expenditures although these expenditures can actually be for non-tourism commodities (like groceries and beer). Within the NACE system, tourist industries are those whose business would be significantly reduced if it were not for tourism, like airline companies or travel agencies.

A number of complications arise. An obvious one is that within any country, visitors consume both tourism and non-tourism commodities but so do the local residents. Locals may go visit one of the tourist attractions or have a meal at a hotel. Thus, Smith states that it is necessary to calculate the so-called "tourism ratio" (39), which is the ratio between total tourism demand (total value of commodity purchased by visitors) and tourism supply (total value of tourism commodities sold, regardless of who consumes these).

It is important to understand that the TSA is not a *per se* definition of tourism. Rather, it is a tool for (a) describing economic activity and (b) measuring economic activity that is directly attributable to tourism. Even though it is a useful tool and a number of countries have adopted this, there are many problems associated with the TSA's use. The main one is the considerable cost involved in order to acquire the necessary data on tourism demand and supply. Also, because the TSA is tied to a country's Input-Output matrices, (which also happens, by the way, to be one of the strengths of the tool) a major limitation is that these I/Os are updated infrequently since enormous amounts of data are required for such an update. This means the data of a TSA can sometimes be old, thus limiting their use in terms of effective policy-making.

On a positive note, recent moves to develop regionalized TSAs offer enormous potential for tourism research, especially since they lead to more consistent ways of defining tourism and measuring its impacts (Jones 2006). Jones points out that the advantage of regional TSAs over national ones is that they highlight he fact that tourism is not an aggregated phenomenon distributed evenly throughout a country

but occurs, rather, in certain areas. From a policy perspective, 'the national TSA cannot help us decide how far tourism can help spread prosperity to less favoured areas within countries' (Jones 2006: 2).

Some regions within EU countries have already produced work on regional TSAs (e.g., Andalusia in Spain). Jones points out that one of the issues that must be considered when developing a regional TSA is whether national or local actors are driving the process, because each set of actors will likely have different objectives. An important impediment in the process is that there is no equivalent at the regional level of a national accounts office but despite this, Jones believes that the advantages to be derived from constructing a regional TSA far outweigh the disadvantages.

5.2.4 Tourism and tourist typologies

The previous sections explored the meaning of tourism as an industry. Another issue related to definitions is who are the tourists themselves? Already it has been shown that they can be short-term visitors arriving in a particular place for a variety of reasons (e.g., visiting friends or conducting business). From the perspective of tourist impacts (see next section) on destinations it is important to recognize various typologies of tourists because among other things these highlight travellers as a non-homogeneous group; each category of tourists exhibits different patterns of demand and consumption. As Shaw and Williams (1994: 68) point out 'many of the [existing] typologies are based around identifying the significant traits of tourists and, in particular their demands as consumers.' Thus, typologies such as the ones developed by Cohen (1972) and Smith (1977) focus on tourists' relationships to their destinations. So, for instance, we can associate areas that attract individual mass tourists – those who make arrangements for travel through a travel agency in the area of origin – with growing commercialization. By contrast, explorer-type tourists are, as long as their activities are within the thresholds of the destination's carrying capacity, likely to have fewer negative impacts on the destination.

On the other side of the coin are the different types of tourist destinations that evolve over time. Recognizing such typologies has considerable benefits from the perspective of planners since it allows the recognition of impacts in a spatial sense (e.g., intensity of growth, assessment of impacts and so on).

There are a number of ways to typologize destinations. A simple one is by describing the character of the host destination (e.g., urban, rural, seaside, mountain resort, and so on. Note that these categories are not necessarily mutually exclusive). Yet another way to describe tourist destinations is through the nature of

the tourists they attract (e.g., mass tourist destination, alternative tourist destination, and so on).

It is also possible to describe various destinations according to the main attraction. So, for instance, there can be different types of urban destinations such as historic-cities, business-oriented destinations, religious pilgrimage sites, festival sites and so on; again, these activities are not necessarily mutually exclusive.

One way that the UNWTO characterizes destinations is the following: Coastal Zones, Beach Destinations and sites, Small Islands, Mountain Destinations, Natural and sensitive Ecological Sites, Ecotourism Destinations, Parks and protected areas, Communities within or Adjacent to Protected Areas, Trails and Routes, Built Heritage Sites, Small and Traditional Communities, Urban Tourist Areas, Conventions and Convention Centres, Communities seeking tourism development, Theme Parks, Water Parks and Cruise Ships and their destinations.

While much has been written about typologies of tourists and destinations, considerable efforts have been made to describe the evolution of tourists and tourist destinations through time. The reason for this is that tourist areas actually witness change and by the same token the travellers who visit and the residents within these destinations alter their behaviour and perceptions. Recognition of these factors is vital for developing policies aimed at enhancing the long-term sustainability of destinations.

A number of longitudinal models have been developed to describe the life cycle of destinations and the tourists who visit them. The most commonly referred to model is Butler's resort cycle (1980) which assumes destinations go through a predictable evolutionary process that sees them change from relatively unknown areas (attracting explorer type tourists) to mass destinations and eventually ones entering stagnation and perhaps decline. According to Butler this simple model allows us to view not only the evolution of the destination through time but to identify who the main stakeholders are at each stage, recognize the sector's impacts and describe how the tourists and the residents change their behaviour.

Such an evolutionary model suffers from many problems, the biggest one being its extremely descriptive nature and that it can only be used to view what has happened in the past. This, of course, limits the model's usefulness as a proactive planning/policy tool. Nevertheless, many observers note that a longitudinal model such as the resort life cycle is valuable because, if nothing else, it enables policy-makers to anticipate what may happen in certain destinations if no planning is implemented early on (based on what has happened in similar more mature destinations).

5.2.5 Tourism and its impacts

Solid definitions of tourism, the tourist industry, and tourists themselves are vital in order to comprehend tourism's various impacts on host communities. In final analysis, the better these impacts can be measured and understood the more likely policymakers are to develop appropriate actions for mitigating tourism's problems while maximizing its benefits.

Understanding tourism's impacts is, of course, one of the most (if not the most) popular avenues of research in the field. A major reason for this is that tourism often becomes a highly visible sector in various areas dominating, for instance, their economy but also the built and natural environments. Thus, for decades researchers have explored and debated tourism's impacts on the economic, socio-cultural, and physical environmental fabrics of destinations. Numerous case studies have been published and consultancy reports produced demonstrating how tourism generates either positive or negative effects; almost always these documents end with recommendations on how to rectify tourism's ills or to ensure that the sector exists in a sustainable manner.

A long discussion on the pros and cons of tourism is beyond the scope of this report. Suffice to say there are various viewpoints regarding the sector's effects. For instance, while the optimists associate tourism's economic benefits with job creation, employment and income multipliers, economic diversification and so on, others portray a far gloomier picture, arguing that the jobs are predominantly seasonal, low-skilled and low-waged. The same people also highlight the economic leakages often associated with the industry and warn that multipliers may actually be far lower than presented.

Debates as to the impacts of tourism on a destination's culture or its natural and built environment also dominate the literature. For the most part, arguments on these issues paint an unfavourable picture of tourism since they regularly focus on destinations where the sector has grown uncontrollably and with limited coordinated planning. Indeed, in many such destinations actions for rectifying the most adverse effects of tourism are only implemented after the sector has been associated with many serious problems like environmental or architectural pollution, the destruction of beautiful views, and the loss of cultural cohesiveness.

5.2.6 Tourism and sustainable development

Much of the recent work on tourism has been devoted to examinations of the sector's interactions to the overarching theme of sustainable development. This follows naturally from investigations of tourism's impacts.

Given the nebulous definition of sustainable development that seeks to reconcile three seemingly contradictory objectives (the generation of economic growth while preserving the natural/built environment and ensuring enhanced inter and intra-generational equity) it is not at all surprising that a huge amount of attention has been dedicated to examinations of definitions of what sustainable tourism actually means.

The UNWTO's main definition of tourism is primarily conceived to enable measurements of flows of visitors and their economic contribution all over the economy. Since the early 1990s, the UNWTO has pioneered the development of sustainability indicators to tourism and destinations in order to support monitoring of environmental and socio-cultural impacts.

The latest definition of sustainable development of tourism dates from 2004:

> *Sustainable tourism development guidelines and management practices are applicable to all forms of tourism in all types of destinations, including mass tourism and the various niche tourism segments. Sustainability principles refer to the environmental, economic and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability. Thus, sustainable tourism should:*
>
> *Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.*
>
> *Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.*
>
> *Ensure viable, long-term economic operations, providing socio-economic benefits to all shareholders that are fairly distributed, including stable employment and income earning opportunities and social services to host communities, and contributing to poverty alleviation.*
>
> *Sustainable tourism development requires the informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide*

participation and consensus building. Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary. Sustainable tourism should also maintain a high level of tourist satisfaction and ensure meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them.

Rather than being an exact definition, it is a conceptual framework aimed at ensuring a mutual understanding of sustainable tourism development. Nevertheless it serves as a basis for the development of statistics and indicators linked to the monitoring of environmental and socio-cultural impacts of tourism.

Among the most pertinent obstacles to ensuring the attainment of sustainable development practices is the fact that the term means so many different things to different people. In other words, a politician, a banker, and a member of Greenpeace will possibly have very different definitions of it. To further complicate matters definitions of sustainable development by identical groups of people (e.g., residents, developers, local government) will vary geographically but also temporally. For instance, in a region which has not yet witnessed much tourism development and residents are exceedingly poor with few opportunities to increase their income, tourism may be viewed positively as an economic panacea. By contrast in an area that has experienced rapid development of tourism, residents may be far less enthusiastic about hosting visitors.

The enormous variety of destinations within the EU (urban versus rural, mature versus nascent, coastal versus mountainous, and so on) makes it exceedingly hard to identify a "one-size-fits-all" sustainable development strategy. To be sure there have been a few positive steps in terms of moving sustainable development from an academic concept with minimal teeth to an operational tool and the EU has been no laggard in this area. Attempts like the use of integrated quality management (IQM) to find sustainable solutions for urban, rural, and coastal areas are already in place for various areas around the Union. For almost a decade Denmark has used the Destination 21 concept in a number of areas throughout the country in an effort to develop both a sustainability labelling scheme for each destination as well as a sustainability management system. The reason for doing this was to move forward from a situation where there was a lack of a clear strategy as to what sustainable development meant at the national level. The beauty of this system is that it emanates from the cooperation of all stakeholders with an interest in tourism at each destination participating in the programme. Among the ways to ensure whether a destination is moving or not toward sustainability is through the investigation of clearly defined indicators.

Projects such as Destination 21 have their advantages but, undoubtedly, also present flaws. Nevertheless, they indicate that policymakers are beginning to tackle ways to move the discussion of sustainability from the halls of academe towards tangible actions that are effective for various destinations. The question that emerges is whether or not the EU can learn from these steps and move towards developing effective strategies that can apply sustainable solutions to a large variety of destination areas throughout the union. What is clear is that it would be effective to develop actions, which recognize the spatio-temporal contingencies of different places. A first step would be to initiate a common set of top-down actions that are appropriate for a specific type of destination (e.g., actions that are appropriate for a non-mature, coastal, Mediterranean region). Once these actions are identified, further objectives can be developed within each destination in a bottom-up fashion in an effort to ensure its long term sustainability.

5.2.7 Tourism and geospatial technologies

A useful tool for developing tourism typologies is the use of GIS, a powerful tool for the creation, management, analysis, and representation of spatial data. The methodology has been used in tourism studies since the early 1990s. Among the applications of GIS in tourism studies are ones examining 'what-if' scenarios and ones investigating changes that have occurred through time. GIS can also be used to construct resource inventories, to identify impacts, and to perform land suitability analyses for new developments. Farsari and Prastacos (2004: 605) contend that GIS technology has evolved from simple mapping techniques to 'complex systems that support decision-making effectively and in an integrated way (…) GIS technology can provide a basis for the development of systems to support decision-making for sustainable tourism.'

One of the most interesting recent applications and one relevant to this particular study is by Coccossis and Constantoglou (2005) who sought to develop a typology of Greek coastal and insular destinations for the purpose of developing appropriate planning responses for each class of destination. The beauty of developing a typology of coastal destinations for Greece is that it enables planners to develop appropriate actions that more closely match the realities of each destination as opposed to implementing a blanket strategy.

Using relatively simple data, namely relating to demographic (population change) and tourist (growth in arrivals) characteristics, Coccossis and Constantoglou were able to identify through GIS four different types of coastal regions: areas where both tourism and the total population are increasing; areas where tourism is increasing by the population is in decline; areas where the population is increasing

but tourism is in decline; and areas where both the population and tourism are in decline. The authors argument is that by identifying these different types of areas, appropriate policies can be adopted that closely address the realities of each region.

Admittedly, the study by Coccossis and Constantoglou is at this stage simplistic since it relies on only two variables (population growth and growth in arrivals). However, many more layers of data beyond these two can be analyzed to create composite maps, which can aid in the identification of tourist destination types. This would enable policymakers to allow for the fact that destinations have distinctive natural, social, and economic characteristics, have reached varying levels of development, and draw different types of visitors.

5.3 Conclusions

Tourism is a complex matter. It can be defined in many different ways, both in a broad and narrow sense. And since it is not a clearly defined industrial sector it cannot easily be statistically identified.

Tourism is investigated because of its positive economic impact and its promising future perspectives for many regions, but at the same time there is an obvious risk of detrimental development where new investments in tourism infrastructure - if poorly planned - may serve to weaken the destination's attraction to visitors. Additionally, the propensity for increased travel is not environmentally sustainable, since it inevitably leads to the consumption of considerable amounts of energy and contributes, for example, to emissions and accidents. Careful spatial planning is therefore necessary for combining the economic benefits of tourism within an agenda of long-term sustainable development, both locally and globally.

Tourism has over the years received increased attention as a topic for research. It attracts interest from many academic disciplines, and every project and discipline tends to define tourism differently depending on the focus of the study. The very act of travelling itself has to be defined. For example, the distance travelled and the length of stay must be investigated and one must determine whether country borders have to be crossed or not.

Studies of the economic impact of tourism will often focus on employment and value-added. The production system is therefore of interest. For example, we need to investigate the broad collection of firms that produce services partly for residents and partly for guests. Another issue involves the examination of the tourists' identity and determining why they travel. The purpose of the visit is therefore important, whether it is for leisure or business (or both). Also, how does one deal with commuting and shopping trips and so on.

The places that attract tourists – the destinations - can also be described in various typologies based on their main attraction. And finally, perhaps the most popular avenues of research involve the enhancement of our understanding of tourism's impacts, namely its benefits and disadvantages.

In this report the primary interest in tourism is from the viewpoint of spatial planning. We do nevertheless recommend the use of definitions that are based on adopting UNWTO and Eurostat standards and guidance. The current UNWTO definition of tourism is:

> *Activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited.*

The proposed UNWTO definition of a visitor is:

> *Any person taking a trip outside his/her usual environment for less than 12 months and whose main purpose of trip is other than being employed by or providing a paid service to a resident entity in the place visited.*

The destination is normally understood as the physical space a tourist is spending his/her time. In geographical terms, a destination often consists of a single locality or a group of municipalities that is units whose definition may vary from case to case, and for which comparative data likely do not exist. For practical reasons and for comparative European studies, we therefore recommend a definition of a destination as a statistical unit:

> *The administrative unit corresponding to the first level of territorial disaggregation of a country in terms of its political and administrative organisation.*

Similarly for the definition of the tourism industry, i.e. the production system, we propose to follow the international industrial classifications (ISIC and NACE). In line with the definition used for the UNWTO Tourism Satellite Accounts (see below), 12 activities and industries that are characteristic for the tourism business can be identified.

6 Data availability

Performing comparative European studies are always challenging, as definitions often are lacking consistency and data gaps occur. Tourism is no exception. Even with an international agreement on a official definition, data are for various reasons not always collected in a way that allows comparisons and analysis across national borders. We will in this chapter describe the availability of data at three geographical levels. The existing international tourism statistics and the initiatives to develop Tourism Satellite Accounts are described in the first section, before we move on to an overview of the existing data at national and sub-national levels.

6.1 A need for data reconciliation

When examining tourism statistics, a fundamental problem that emerges is that different countries report tourism-related indicators in various ways, which makes it very hard, among others, to undertake comparative studies. Ciller and Libreros (2004) point out that the inconsistency of measuring tourism is especially problematic when taking into account that most international tourism within the EU is accounted for by intra-Union flows. For example, there are differences in how various countries report incoming and outgoing tourists meaning it is hard to reconcile the data, in cases like cross-border comparisons.

This report indicates some of the key issues emerging when measuring tourism at the sub-national level. The simple techniques of location quotients and shift-share analysis were identified in the previous chapter as a possible first step for understanding the magnitude of tourism-related activities on a consistent basis throughout the EU. Further, the use of TSAs, especially regional TSAs, was briefly described to allow policymakers at various levels (local, regional, national, and EU-wide) more consistency in terms of measuring tourism.

It is clear from this analysis that the best way to develop tourism-related policies throughout the EU29 is to recognize the existence of different types of destinations since the development of an all-encompassing tourism strategy is not appropriate throughout this vast geographical area. This means that it is imperative to construct a sophisticated typology of tourism destinations, which recognizes – among others - their nature (e.g., urban or rural, coastal or mountainous), their degree of development, and the nature of impacts on the economic, cultural, and physical fabrics.

Although, the development of destination typologies is not something new, the previous chapter proposed the use of GIS as a powerful tool for identifying classes of destinations. In turn, it was suggested that such a typology can help planners and policymakers devise actions to better manage the development of tourism in a manner that would ensure the long-term sustainability of host areas.

6.2 International tourism statistics

6.2.1 International Standards of Tourism Statistics

Created in September 2004, the Inter-Agency Coordination Group on Tourism Statistics (IACG on TS) [3] has been working on specifying and coordinating the updating of current international standards on tourism statistics approved by the United Nations Statistical Commission in 1993 and 2000 and whose official texts are *Recommendations on Tourism Statistics*; and *Tourism Satellite Account: Recommended Methodological Framework*[4].

The IACG on TS will use the typology already adopted by the UN Statistical Commission in their revision process. Priority has been given towards defining the list of changes and amendments in order to bring tourism statistics standards closer to related macroeconomic frameworks. The work will be completed with the submission to the United Nations Statistical Commission of the revision of the current standards for approval at its 2008 session.

The description below is based on the present standards.

[3] The permanent core at the plenary and working levels is composed of the following organizations: the United Nations Statistics Division, the Statistical Office of the European Communities (Eurostat), the Organisation for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF), the International Labour Organization (ILO), the World Trade Organization (WTO) and the World Tourism Organization (UNWTO). Other international agencies, such as the United Nations Conference on Trade and Development (UNCTAD), the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC) and the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), have attended occasionally.
For those interested in the revision process see
http://www.unwto.org/statistics/foro_home.htm

[4] The first standards defined the basic components of the System of Tourism Statistics (STS) while the second one referred to the conceptual framework of the Tourism Satellite Account (TSA) which is the unifying framework of most of the components of national STSs.

6.2.2 System of Tourism Statistics (STS) and the links to the Tourism Satellite Account (TSA)

The System of Tourism Statistics (STS) can be seen as a subset of the General Statistical System that secures a description of tourism and the measurement of its economic contribution. UNWTO defines STS as follows:

> *A System of Tourism Statistics (STS) should be understood, as that part of the General Statistical System providing reliable, consistent and appropriate statistical information on the socio-economic structure and the developments of tourism, integrated within all the economic and social statistics related to other fields, at different territorial levels (state, infra-state and international).*

The design of the STS should be viewed as the basic coordination framework of all the information produced by all stakeholders in tourism. Concepts, definitions, classifications, indicators and accounting aggregates relating to tourism, designed so as to secure an exhaustive description of the tourism phenomenon in all its aspects (physical, social, economic, etc.) and a measurement of its economic impact within a context of international comparability are a structural part of the system.

Although it is the countries' responsibility to carry out the development of the STS, the UNWTO recommends this should follow the basic principles of official statistics approved by the United Nations Statistical Commission (11/15 April 1994). Those principles provide guidelines for establishing and maintaining a credible STS and therefore, the use of such principles should be understood as a necessary condition to maintain users' confidence in tourism statistics and, particularly, to help guarantee the integrity, transparency and confidentiality of individual data and public access to the available statistics.

Regarding its socio-economic aspect, the STS can be defined as a set of components, of a statistical nature, developed from the statistical sources themselves and the corresponding data obtained (i.e. statistics drawn from surveys, administrative records, or of a synthetic nature - like the TSA -, etc.), the specific tools, methodological references and instruments used at some stages of the process that the generation of statistics entails (as is the case of concepts, definitions, classifications, databases, etc.), and also the instrumental and organizational resources used in all these processes. As a consequence, the STS encompasses the technical aspects of field operation, the creation of statistical infrastructure, the elaboration of the results, and the completion of work leading to an integration of the data into a system of information.

Users concerned more specifically with the production and analysis of tourism statistics will find additional references in the actual official documents which are

entitled *Recommendations on Tourism Statistics* and *Tourism Satellite Account (TSA): Recommended Methodological Framework*. These two documents, approved by the United Nations, contain the existing recommendations on tourism statistics. The purpose of the first of these, approved in 1993, was to develop a first set of basic elements of STS, and the second relates to the design of the instrument that today is the unifying framework of most of its components, i.e. the Tourism Satellite Account (TSA), approved in 2000. Both recommendations correspond to the institutional role that the UNWTO assumes in statistics: the comparability of economic statistics, the development of international standards and the process of general guidelines.

In order for the STS to be, in its own right, a subsystem of the corresponding General Statistical System, UNWTO believes that, besides the TSA, it would be necessary to have also a Tourism Balance of Payments (TBP) because this would be another instrument unifying the referred subsystem, a function that the Balance of Payments performs for the General Statistical System. To some extent, a third unifying element could be a Tourism Labour Accounting System (LAS-T). A first version of the methodological design of the LAS-T was prepared by the International Labour Organisation (ILO) in March 2001. Table 6.1 highlights the structure of the System of Tourism Statistics.

The concepts and units have been developed on the basis of the conceptual framework of the Tourism Satellite Account (TSA). Consequently, the definitions used are linked to this new statistical instrument.

The data collected by the National Statistical Offices and available at national level and for Macro regions (Europe, Americas etc.) or sub-national levels (NUTS 3) in the case of EU countries.

The TSA should be examined from two different perspectives:

- As a new statistical tool including concepts, definitions, aggregates, classifications and tables compatible with international national accounting guidelines which will allow for valid comparisons between regions, countries or groups of countries, and make also these estimates comparable with other internationally recognized macroeconomic aggregates and compilations;
- As a building process to guide countries in the development of their own system of tourism statistics, the main objective being the completion of the TSA, which could be viewed as a synthesis of such a system. The TSA recommendations should be seen as the first step in a process of methodological development of this new statistical instrument whose operational character is a synthesis shared in common with National Accounts.

Table 6.1: System of Tourism Statistics

1. BASIC STATISTICS
1.1. TOURISM CONSUMPTION
1.1.1. Concepts
1.1.2. Tourism units
1.2. TOURISM SUPPLY
1.2.1. Concepts and units
1.3. PRODUCTION FACTORS
1.3.1. Labour force
1.3.2. Capital
1.3.3. Technical innovations
2. CLASSIFICATIONS RELATING TO TOURISM STATISTICS
2.1. TOURISM SPECIFIC PRODUCTS (List of)
2.2. STANDARD INTERNATIONAL CLASSIFICATION OF TOURISM ACTIVITIES (SICTA)
3. TOURISM SATELLITE ACCOUNT (TSA)
3.1. TSA CONCEPTS
3.2. TSA AGGREGATES
3.3. CLASSIFICATIONS FOR TSA
- Tourism characteristic products (List of)
- Tourism characteristic activities (List of)
3.4. TSA TABLES OF RESULTS
3.5. TSA EXTENSIONS
- TSA - Regional
- TSA - Indicators
- TSA - Supranational perspective
- TSA - Functional perspective
- TSA - Institutional perspective
- Tourism Labour Accounting System
4. TOURISM BALANCE OF PAYMENTS

The TSA constitutes an important information base as it allows for the measurement of direct economic contributions. In order to measure tourism's overall contribution, tourism analysis should focus on an impact study where impacts refer to *changes, resulting from specific events or activities*. Contribution measures the size and overall significance of the industry within an economy. Economic impact implies the change in the total economy as a result of such a contribution and needs to allow for extensive interactive effects which will have occurred across the economy. It is

possible to undertake an economic impact study of the effects of changes in final demand, but this requires the use of specific economic modelling techniques such as Computable General Equilibrium Modelling.

The structure of the TSA is designed to show the relationship between the demand for products generated by tourism, and their total supply. The process for tourism involves identifying products consumed by visitors, such as accommodation services and meals, and linking these products to the industries that produce them.

Information on the role tourism plays in national economies throughout the world is deficient, and credible data concerning the scale and significance of tourism are needed. To address this, the UNWTO, in conjunction with the Commission of the European Communities-Eurostat, the Organisation for Economic Co-operation and Development (OECD) and the United Nations Statistical Division, has produced the *Tourism Satellite Account: Recommended Methodological Framework*.

In the TSA, products are those goods and services purchased by or for visitors. Activities (or industries) produce products. These products are classified as tourism characteristic, tourism connected and tourism specific (related):

- *Tourism characteristic products* are those products, which analysts in most countries believe would cease to exist in a meaningful quantity or those for which the level of consumption would be significantly reduced in the absence of visitors, and for which statistical information seems possible to obtain
- *Tourism connected products* are a residual category including those that have been identified as tourism specific in a given country, but for which this attribute has not been acknowledged on a worldwide basis.
- *Tourism specific products* are the sum of the two previous categories. In some countries these products are called 'tourism related'.

Another category is products which are consumed by visitors but which are not important enough to fall into the categories described above. In the TSA, these are aggregated into a single category labelled "Other".

In order to measure demand (products consumed) information is required on purchases by or for visitors. (Fixed capital formation and government collective consumption are not currently included for estimating value added, GDP or employment in the TSA although there is provision for them to be included in separate tables in the TSA.)

6.2.3 Concepts and definitions that need specific consideration

One ambition for a future ESPON study must be to use available sources and to go beyond what is currently possible. A number of concepts will then need specific consideration since the definitions of concepts will have implications on data availability. In particular, concepts like "Usual environment", "Residence", "Forms of tourism", "Trip" and "Second homes for tourism purposes" need consideration.

Usual environment

The concept of usual environment is undoubtedly the basic foundation that supports the conceptual structure of tourism as a scope of analysis in itself and whose precise definition affects the measurement of the variables of trips and visitors and, to a lesser degree, also that of bed-nights. Consequently, it is also relevant to other fields of analysis such as mobility and the regulation of visitor traffic. Therefore, its definition should vary according to the scope of analysis and the territorial perspective used.

In addition, visitor's expenditure must be considered. The TSA conceptual framework's analytical power lies precisely in the link between the physical and monetary nature of tourism activity on the demand side. What has to be done then is to include a new variable (of a monetary nature), and consequently, characterize different trips according to their degree of significance in terms of their economic contribution.

Although it is not always possible (or even feasible) to design a statistical operation that collects both the number of trips and the corresponding associated expenditure at different sub-national levels, it is inevitable that the measurement of one variable and/or the other will be carried out through statistical operations that address samples of households and which survey most, if not all, their members. If this is the case, the design, collection and analysis of these types of data, as in the vast majority of directly collected primary statistics, is based on territorial scope as one of the variables of stratification of the sample. Therefore, the municipality would be the most disaggregated territorial administrative unit for which it would be possible to structure an entire set of statistical information in relation to a scope of analysis (tourism, in our case) that needs territorial articulation at various levels.

The above reasoning leads us to specify the different perspectives that would be used to establish varying definitions of the concept of usual environment for the purposes of comparability of the number of trips and their corresponding economic valuation:

- the perspective of measuring the economic contribution of tourism activity (in terms of number of trips made by residents during their tourism travels in the national territory, and of the corresponding associated expenditure);
- the administrative delimitation of the territorial scope of reference (in terms of the different NUTS levels);
- the varying economic significance of the trips made in terms of associated expenditure (recurring and non-recurring trips in the course of different periods - either monthly / quarterly / annual).

If the objective is not comparability but rather a more precise analysis in a specific territorial area, a different type of definitions would be necessary, such as distance travelled, specific natural environments or other type of characteristics.

Concept of residence

The ILO has approved a new definition of the concept of residence[5], which should be taken into account in any kind of household survey and not just in household budget surveys. The provisional definition is as follows: "*the membership of a household consists of all persons usually resident in the household, where usual residence should be defined in a manner consistent with the provisions in the latest version of the Principles and recommendations for population and housing censuses of the United Nations. A minimum duration of 6 months may be used as one of the criteria for determining usual residence*". This greater flexibility provided by the possibility of considering household members as not sharing the same residence in a given year is of special relevance at both the national and sub-national levels.

The notion of residence is a basic concept for the observation of tourism. It allows identifying the different forms of tourism and classifying visitors according to their country of residence, something which is necessarily unique; this is not the case of nationality as many people may be citizens of more than one country.

An individual has the same country of residence as the household to which he or she belongs. In tourism statistics, the country of residence of a household is defined in the same way as in Balance of Payments and in the system of National Accounts, and is based on the criterion of a predominant centre of economic interest.

For purposes of tourism statistics a person is considered to be a resident in a country if the person: a) has lived for most of the past year (12 months) in that

[5] The Seventeenth International Conference of Labour Statisticians on Household income and expenditure statistics held in Geneva, 24 November – 3 December 2003, Recommendation No 59.

country, or b) has lived in that country for a shorter period and intends to return within 12 months to live in that country.

Forms of tourism

The existence of internal visitors from the rest of the national territory obliges one to adapt the different forms of tourism in the following way:

- "internal" regional tourism consumption: this covers consumption by internal visitors who are resident in the region (or territorial level in question);
- "receiving" regional tourism consumption: this covers consumption in the region by visitors who are not resident in the country plus that by resident visitors from the rest of the national territory;
- "generating" regional tourism consumption: this covers consumption by residents from the region but outside it, that is, in other regions of the country in question and in the rest of the world;
- "interior" regional tourism consumption: this covers "internal" plus "receiving" regional tourism consumption.

Concept of trip

This is a key variable for analysing tourism and mobility. This is particularly the case when a sub-national perspective is used. It is considered necessary to define this variable in terms of stages of the trip (stops, same-day travel, overnights, etc.). If a system of household surveys is used, it would be advisable to use travel diaries (which would be analogous to the expenditure logs used in household budget surveys), techniques similar to that of time use, which approximate the succession of activities carried out in the course of a tourism itinerary, or any other system that makes it possible to reconstruct the different characteristics of the trip made.

A unique trip, taking a traveller outside his/her usual environment might have more than one impact on a unique geographical level. The string of impacts will depend on how the trip serves to take the traveller from his/her point of origin to his/her point of destination, (which means of transportation, with or without stops and overnights, ..) and on how the breakdown of "regions" is defined.

Looking at a trip from the point of view of the traveller (who is usually asked to define this using the last point from his/her point of departure) might be very different than looking at the trip from the perspective of the places visited. The two approaches do not add up. How do we reconcile the different sources? This is particularly important, as certain areas are principally "transit" areas for visitors

who are heading to other final destinations. Nevertheless, these areas are experiencing a tourism activity, and might try to "act" on these visitor flows in order to persuade them to stay.

Purpose of the visit

If a person has more than one stopover in a tourism region, they may report multiple reasons for visiting the region. The main purpose for the region is defined as that which is associated with the largest number of nights spent in the region.

It is important to recognize that for a particular region, the purpose of the visit need not be the same as the main purpose of the trip. Consider an international visitor who comes to the UK primarily to conduct business in London, but also spends a week in the Scottish Highlands on holidays. That person's expenditure would contribute to England's business estimate and Scotland's holiday estimate.

One important aspect involves identifying other motives aside from the main purpose of the trip, as well as the different activities visitors engage in during their stay. This information can be useful for accurately estimating length of stay and average expenditure in certain tourism segments (such as meetings' tourism, sporting events, etc.). These cases are probably of greater interest to regional rather than national tourism associations.

Second homes

The housing services provided by second-owned homes to their owners or to others who stay free of charge and which are used mainly for tourism purposes constitutes a relevant issue worthy of study in many European countries.

In fact, the TSA includes these type of dwellings as part of the tourism industries even when they are not considered as an industry in the official UN classification of economic activities (ISIC). Nevertheless, this approach is consistent with the treatment of National Accounts: in the case of second homes for tourism purposes, a specific tourism activity could be associated with these homes and the corresponding tourism housing service is produced and consumed by the visitors.

Therefore, the TSA opens the way to measure this specific aspect of the tourism industry. In the UNWTO's new proposal for updating the definition of the trip purposes, the visit to second homes has been identified as a purpose, in order to reflect its increasing importance in many countries, mainly as an aspect of domestic tourism, in which individuals travel to their second homes in localities outside their

home communities; often this trip is made without thoughts of engaging in other activities beyond visiting their second home.

6.3 Existing data at the national and sub-national levels

EU Member States have adopted the Council Directive 95/57/EC of 23 November 1995 on the collection of statistical information in the field of tourism. Data are collected from all EU Member States, as well as for Iceland, Liechtenstein, Norway, Switzerland, Bulgaria and Romania, at national and for NUTS I, II and III levels[6]. European aggregates (EU-15, EU-25 and Euro Zone) are calculated if possible.

The data collected relate to:

(a) The capacity of collective tourist accommodation establishments:

The types of collective accommodation in question are as follows:
1. hotels and similar establishments
2. other collective accommodation establishments, *inter alia*:
    2.1. tourist campsites
    2.2. holiday dwellings
    2.3. other collective accommodation;

(b) Guest flows in collective accommodation establishments:
The collection shall cover internal tourism, i.e. domestic and inbound tourism; 'domestic tourism` shall mean residents of the given country travelling only within this country and 'inbound tourism` shall mean non-residents travelling within the given country;

(c) Tourism demand:
The collection shall cover national tourism, i.e. domestic and outbound tourism; 'outbound tourism` shall mean residents of a country travelling in another country. The information on tourism demand shall concern trips the main purpose of which is holidays or business and which involve at least one or more consecutive nights spent away from the usual place of residence.

Table 6.2 summarizes the basic set of country indicators that at present support the international comparability of tourism activity.

[6] The UNWTO definition of Europe includes a total of 53 countries and independent areas.

Table 6.2: Basic indicators on Inbound Tourism, Domestic Tourism, Outbound Tourism and Tourism Industries[7]

Inbound tourism	***Domestic tourism***
Arrivals • Visitors • Tourists (overnight visitors) • Same-day visitors • Arrivals by country of origin • Arrivals by mode of transport (cruise, air, rail, road, sea) ***Arrivals by purpose of visit*** • Leisure, recreation and holidays • Business and professional • Other purposes ***Accommodation*** • Overnight stays in hotels and similar establishments • Guests in hotels and similar establishments • Overnight stays in all types of accommodations establishments • Average length of stay on non-resident tourists in all accommodation establishments ***Tourism expenditure in the country*** • Travel • Passenger transport	***Accommodation*** • Overnight stays in hotels and similar establishments • Guests in hotels and similar establishments • Overnight stays in all types of accommodation establishments • Average length of stay of resident tourists in all accommodation establishments ***Outbound tourism*** Departures ***Tourism expenditure in other countries*** • Travel • Passenger transport ***Tourism Industries*** • Hotels and similar establishments • Number of rooms • Number of bed-places • Occupancy rate • Average length of stay (residents + non-residents)

To the extent that a definition following the NUTS classifications 2 and 3 is applied, data is available from Eurostat for the following categories:

- The capacity of collective tourism accommodation, i.e the number of establishments (hotels, campsites etc), bedrooms and beds. Data is required annually at the level of NUTS 3. Time series start in 1994. (Table t_3r in the Reference Guide for Regional and Urban Statistics.)
- Guest flows at these collective accommodation establishments, showing arrivals and nights spent in different broad types of accommodation. Most information is again required annually, with data down to NUTS 2. These are the tables t04_2r Arrivals of residents, t05_2r Nights spent by residents,

[7] Source: UNWTO Compendium of Tourism Statistics, latest edition.

t06_2r Arrivals of non-residents and t07_2r: Nights spent by non-residents. Time series start in 1994. Some information, on arrivals, nights spent and occupancy rates, is required monthly for the country as a whole.

Not all countries provide all the data requested, and there are some gaps in the figures. Table 6.3 indicates the countries where data is missing for these five variables.

There are however additional gaps regarding the time series and in some countries also data gaps for parts of the content of each variable.

Table 6.3: Data availability by country
(grey colour indicate where data are missing)

	t_3r	t04_2r	t05_2r	t06_2r	t07_2r
Belgium					
Bulgaria					
Czech Republic					
Denmark					
Germany					
Estonia					
Ireland					
Greece					
Spain					
France					
Italy					
Cyprus					
Latvia					
Lithuania					
Luxembourg					
Hungary					
Malta					
Netherlands					
Austria					
Poland					
Portugal					
Romania					
Slovenia					
Slovakia					
Finland					
Sweden					
United Kingdom					
Norway					
Switzerland					

Equally important are the differences in definitions, since these seriously hamper comparative analysis. Only in a few cases do the data on arrivals concern transboundary flows of visitors: These are Finland, France, Greece, Ireland, Italy, Portugal, Spain, Sweden and the United Kingdom. Nevertheless, these data do not always result from a census operation, as in the case of France, which extrapolates, using Balance of Payment estimates, observations made only from time to time.

For the remaining European countries, statistics of arrivals refer to arrivals of non-resident tourists in all types of tourism accommodation establishments. The difference between the two concepts is unknown, but surely important.

Finally, the criterion of residence is not always used either, as certain countries still produce their statistics based on nationality (case of Greece, Italy, Portugal). The impact of this difference is unknown.

These differences do obviously complicate the use of the data for comparative purposes. The production of statistical data based on sources of information proper to each country but not comparative, does not lead to general consistency of figures, even if the methodologies seem to be globally consistent.

As stated by Ciller and Libreros (2004):

> *In effect, most countries tend to verify the consistency of their existing general systems of information and of the generated data in the tourism domain within a domestic economy perspective, but are scarcely worried about the effective consistency of the measurement of the flows with their neighbours.*
>
> *Nevertheless, this lack of consistency is particularly serious in the case of tourism, as intra European movements make most of international tourism. An analysis of tourism flows and tourism impacts at this level will, as a consequence, require a more decisive move towards not only harmonization, but also the sharing of data, and why not, the development of common statistical procedures at land borders, useful at both sides of it."*

6.4 Conclusions

The main message emerging from this chapter is that there are currently no reliable data other than accommodation statistics to be used for comparative analyses at the regional level for Europe. The Tourism Satellite Accounts are only partly developed, and only a few countries have enough data to perform statistical analyses at the regional level. The Eurostat database has data at NUTS 2 and 3

levels for guest flows but there are significant differences in data definition and data collection routines; this means that one must be very careful when using these data for comparative analyses across national borders. Differences in the degree of completeness of coverage regarding tourist accommodation facilities between countries and lack of consistency between data gathered by accommodation and border surveys in some relevant countries (like Italy) underscores the complexity of the statistical background

As part of the TSA development project, the UNWTO has developed initiatives to fill different types of information gaps in tourism statistics by providing general guidelines for creating a statistical universe of non-resident visitors and a model border survey (for measuring arrivals and associated expenditures of non-residents), measuring performance of tourism industries by using fiscal sources, and for estimating employment figures in tourism industries. In all of these examples, the UNWTO has very explicitly raised awareness of the need of administrative records for expanding the national System of Tourism Statistics either on its own or by combining this system with survey type data (as in the case of the model border survey proposal).

As well as direct production of statistics from the data, a number of options exist whereby administrative datasets could be extended through integration with each other or with survey data.

However, the use of administrative records may raise concerns about the privacy of the information in the public domain. These concerns are even more important when the administrative records are linked to other sources of data. What the administrative data is used for needs to be carefully considered.

The main disadvantage is the difficulty involved in comparing data across countries, since both definitions may be different for the indicators and for the regional delimitations.

Data modelling techniques are used extensively to derive synthetic estimates when the cost of obtaining small area statistics from a survey is too great. Synthetic estimates are achieved through the development and use of sophisticated statistical modelling and estimation techniques which integrate data from two or more sources. Each data source brings both strengths and weaknesses to the modelling process. Survey data are often restricted in their capacity to produce reliable estimates due to the restrictions of sample size but may exclude certain population groups. Subtle changes within the population of a region may not always be recognized by the assumptions made in the modelling process, therefore synthetic estimates should always be used with care and movements over time should be used rather than absolute values generated by any modelling process.

Information may also be generated by the regulatory authorities of the different types of traffic, from other sources of an administrative nature (such as Social Security records). However, there are other sources that are especially useful for the regional analysis of tourism activity: Credit and bank cards, Toll payments on motorways, Fiscal sources (VAT, Business Income forms, Employers Returns Tax, Municipal administration sources in the case of touristic municipalities).

In conclusion, the analysis of tourism patterns in Europe from a sub-national perspective requires a combined set of initiatives:

- identify information available not included in the Eurostat database (that lies basically in those data requested by the Directive on tourism statistics which does not include, for instance, border survey data or NUTS 3 exhaustive compilations),
- identify national and regional expertise measuring regional tourism activity. In this regard, the experience in regionalizing national TSA exercises (Norway and Finland), the implementation of regional TSAs (Andalucía, Denmark, Scotland), the application of economic modelling techniques – impact type models and general equilibrium models- in different regions (Spain, Portugal, Italy and others), should be analyzed and evaluated,
- creation of a network of regional and national research institutions or governmental bodies in order to set up guidance specifically for regions in order to improve statistical background and analytical possibilities.

This set of initiatives is aimed to complement the present situation in which sub-national data is understood only as disaggregated national survey data. Consequently, we will refrain from making typologies based on indicators from other ESPON projects, as the quality of data does not allow this at the present time. However, this is something we will come back to in the proposal for the ESPON research project.

Finally, it is necessary to keep in mind the difference in definitions and deficiencies in data coverage when in the next chapters we move on to the stories told by the existing statistics.

7. Europe as a Tourism Destination – characteristics and trends

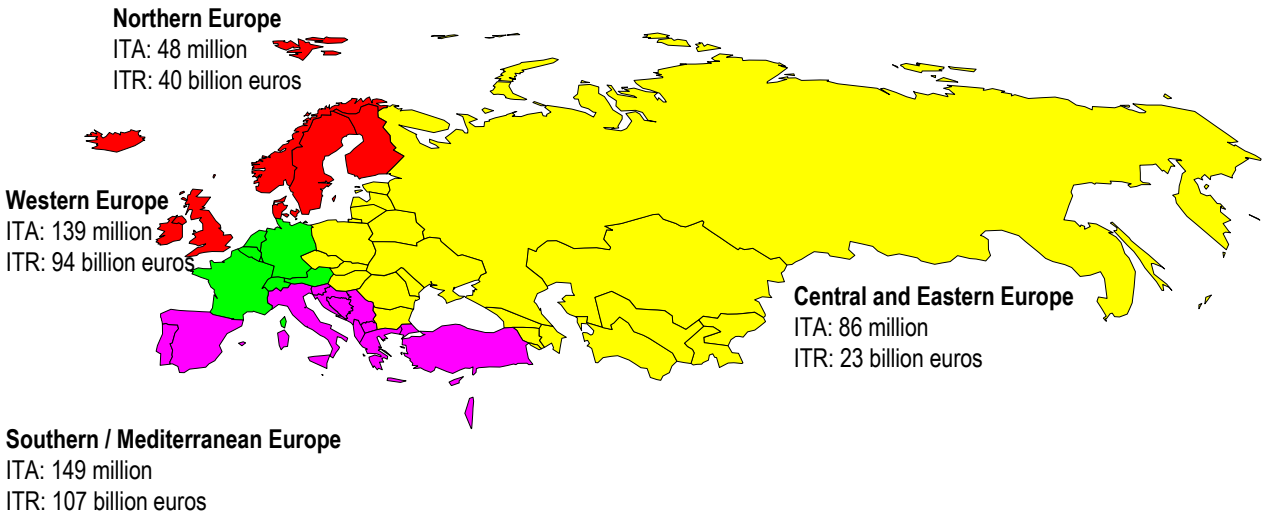
The role of Europe as an origin and destination for international travel is described by the European Commission and UNWTO in several publications. The description below is based on UNWTO estimates of the number of international tourists, on estimates of how much money they spend on their travels and on accommodation statistics. We will in this chapter present an overview of the results, keeping in mind that these figures are for international travels only. On 16 October 2006, Eurostat published a Panorama on Tourism, 2006 Edition. This report confirms our analysis

7.1 Europe as a receiving destination

Europe[8] has been the number one tourism destination in the world for many years. Europe accounts for 441 million international tourist arrivals (2005) or 55% of all international tourist arrivals, and 264.6 billion Euros in tourism receipts corresponding to 52 % of all international tourism receipts (2004).

As illustrated in Figure 7.1 tourism is unevenly spread in Europe with a clear concentration in the traditional destinations in Western and Southern/Mediterranean Europe with more than 68% of all European arrivals.

Figure 7.1: International Tourist Arrivals (ITA) and International Tourism Receipts (ITR) in Europe [9]



[8] All European countries, including the 25 EU Member States
[9] Source: UNWTO Tourism Market Trends, 2005 Edition

When, in this chapter, comparisons are made between Europe and the rest of the world, three issues have to be taken into consideration:

- Comparisons are based on the UNWTO definition of Europe, Americas, Africa, Asia/Pacific etc.
- When comparing Europe to the rest of the world, it has to be taken into consideration that the comparison might be slightly biased by the fact that in the case of Europe, in particular, intra-European travel (travel from one European country to another) accounts for more than 80% of all international arrivals, and that these figures on arrivals by definition are included in the overall European figures on international arrivals whereas intra US travel between US States is not included in the figures for the Americas (including both North and South America) as it is regarded as national travel[10].
- The description of Europe in this chapter is based on the available official tourism statistics on international arrivals and expenditures as recorded by UNWTO which do *not* include domestic tourism. According to Eurostat figures domestic tourism corresponds to 59.5% in the EU-25 when looking at nights spent by residents in hotels and similar establishments and in other collective accommodation (Statistics in focus, 5. 2006). Domestic tourism is particularly important in the Mediterranean countries and most of the Nordic Countries.

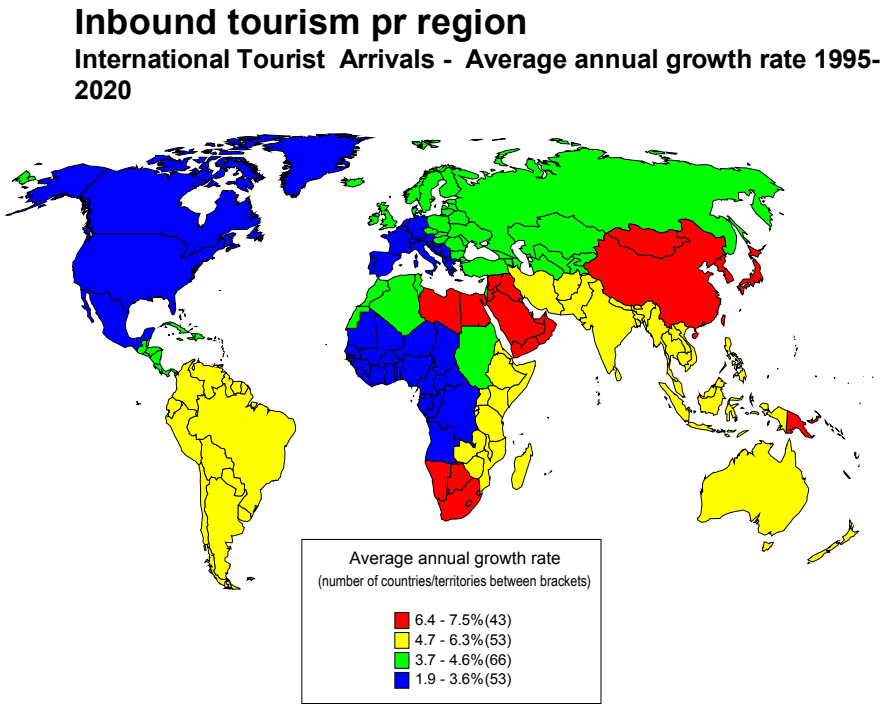
In fact in many countries domestic tourism accounts for more than half of all tourism and exceeds thereby the volume represented by international arrivals (both long haul and arrivals from other countries in Europe).

Nevertheless international tourist arrivals and the related expenditure are officially acknowledged indicators of volume and growth and the strength in these figures lie in the fact that they have been collected for the whole world for a number of years and thereby provide a unique picture on international tourism. Furthermore experience shows that they offer a useful basis for analysis of historical developments, present trends and comparisons between regions and countries on how tourism and the related flows develop seen in an international perspective[11]. Finally as the map above illustrates, EU 15 + Turkey and Iceland account for more than 68% of tourism covered by the UNWTO definition of Europe. The description for Europe according to the UNWTO definition will therefore to a great extent be valid also for tourism in the ESPON countries.[12]

[10] ESPON project 3.4.1 Europe in the World, Final report, refers to the same point on p 115
[11] Reports and statistics from Eurostat and the European Commission are used as well.
[12] It has not been possible to make a comparison on the supply side due to lack of comparable data.

According to the UNWTO Vision 2020, Europe is forecasted to reach 717 million arrivals in 2020 (Figure 7.2) which means that Europe in terms of tourist arrivals will reach the same volume as world tourism had in 2003. This is nearly a doubling of European tourism from 2000 – 2020. Just to illustrate the magnitude of this development, in 1950 there were 25.3 million international arrivals.

Figure 7.2: Global forecast on the development of inbound tourism 2000–2020



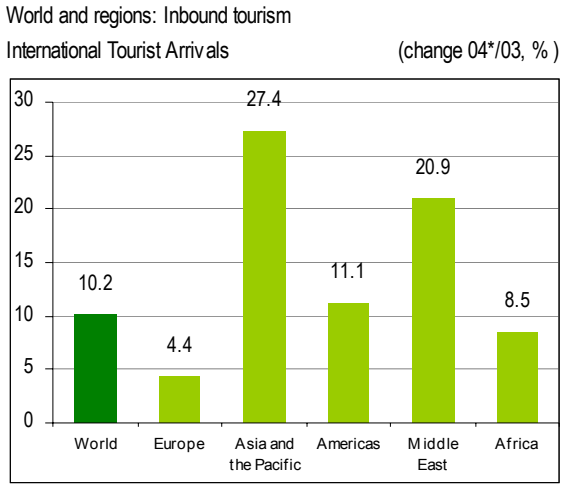
Source: UNWTO, Vision 2020

The UNWTO forecasts that the future growth will be at a lower rate in Europe (3%) than the rest of the world (4%) per cent over the period 1995–2020, which is not surprising as Europe is the most mature tourism region in the world and competition between regions is increasing. In particular Asia-Pacific is forecasted to increase its share of international arrivals from 14% in 1995 to 25% in 2020 corresponding to 397 million arrivals, which is still 44 million arrivals below the present level for Europe. Growth rates will be different within Europe, as both the northern and the eastern parts are expected to have higher growth rates than the traditional destinations.

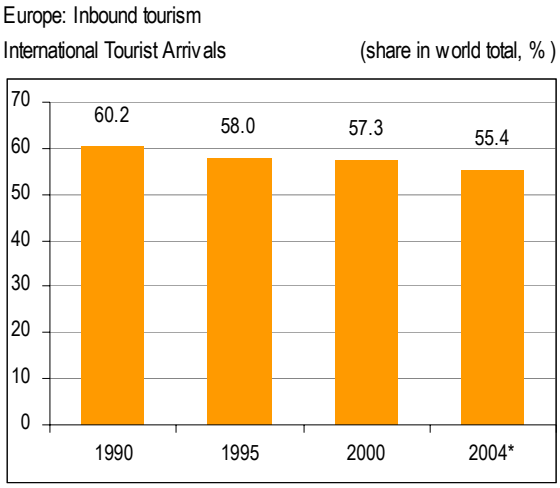
While tourism in Europe is growing at a slower pace than in other regions of the world, it should be noted that in absolute numbers, growth from 2000 to 2004 resulted in 29 million additional international arrivals, which corresponds to 37% of the increase in total numbers of international arrivals in the world in that period. Due to the high base line, even a relatively small growth rate will result in an important increase in the volume.

According to the UNWTO vision 2020, Europe will see a relative fall in its market share from 58,0 % in 1995 to 46.7% in 2020. Nevertheless, Europe will remain the most important tourism destination in the world, – and the most important tourism generating destination as well. It is clear however that Europe is facing increased competition from other destinations in the world.

Figure 7.3: Europe's market share



Source: World Tourism Organization (UNWTO) ©



Source: World Tourism Organization (UNWTO) ©

Resent research undertaken by the European Commission supports the UNWTO Vision 2020 as tourism has been identified as the fastest growing economic sector in Europe, with an annual growth rate of 3.8% and tourism is predicted to become the largest service activity. At present the tourism sector generates almost 12% of GDP, 6% of employment, and 30% of external trade[13]. According to UNWTO, international tourism receipts from international tourism exceeded 250 billion Euro in 2000 and have since then increased. Europe's market share from international tourism receipts was 52% in 2004, which is at the same level as in 1990.

[13] European Commission, www.

The majority of arrivals are from countries within Europe; 88,2 % of all international arrivals are intraregional. Most European countries have less than 10% of arrivals from the Americas and Asia Pacific, but tourists from long haul markets tend to stay longer than tourists who are residents in Europe which means that in terms of international nights spent, the share of these long haul markets is slightly larger.

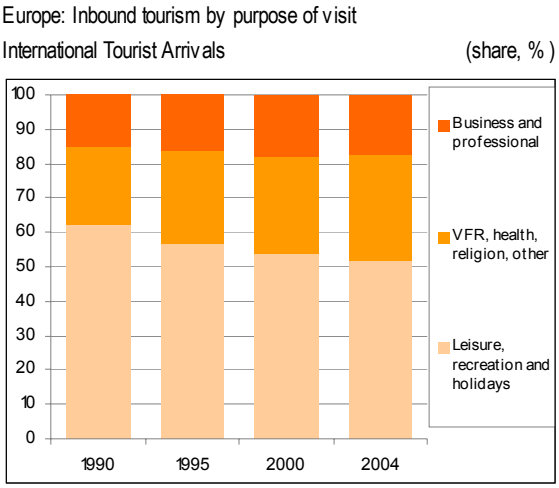
Arrivals for the purpose of leisure, recreation and holidays accounted for more than half (52%) of all international arrivals to Europe in 2004. This is 2% more than the world average. This category has decreased significantly from 1990 where it accounted for 63 per cent of all arrivals.

VFR – visiting friends and relatives – health, religion and other, represents 31% of all arrivals and is the second most important with a volume of 130 million. This category was the most resilient category in the period 2000 – 2004 with a growth rate of more than 4% a year. Not only is this category more resilient to external shocks. The development of the internal market in Europe followed by further integration and mobility between the European countries has undoubtedly increased travel for the purpose of visiting friends and relatives, for education and religious purposes.

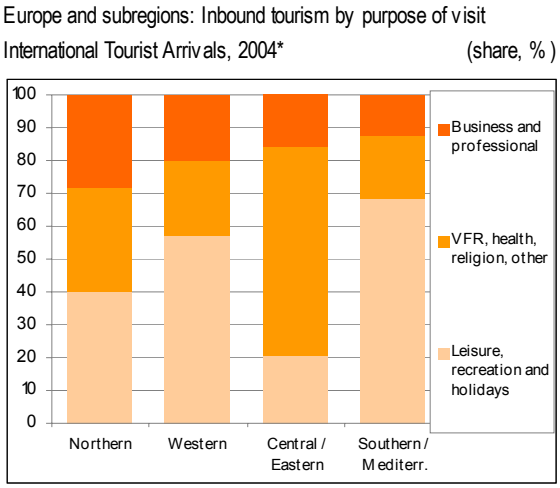
Europe is the region with the largest share of business and professional arrivals. From 1990 to 2000 it experienced a growth rate of 6 per cent but was hard hit by the sluggish economic situation from 2000 – 2003. It is now beyond 2000 levels (74 million vs. 72 million). Arrivals for business and professional purposes increased with 3% from 2003 to 2004 and totaled almost 74 million or 17 per cent of all arrivals.

Thematic trends like the trend towards more culture-oriented and nature-based tourism are difficult to evaluate because of the variety in definitions and the tourists behavior where tourists mix culture and recreation. According to the European Commission there is evidence of increased interest in culture, heritage and nature, which naturally will affect the way tourists travel, using the physical space differently from sun and beach tourism.

Figure 7.4: Purpose of visit



Source: World Tourism Organization (UNWTO) ©



Source: World Tourism Organization (UNWTO) ©

Of all international arrivals, intraregional travel constitutes the majority of arrivals as 88.2% of all visitors come from European Countries. In contrast the pattern is almost the opposite for the Asia –Pacific region as 75% of all international arrivals to Asia-Pacific are long haul arrivals to the region.

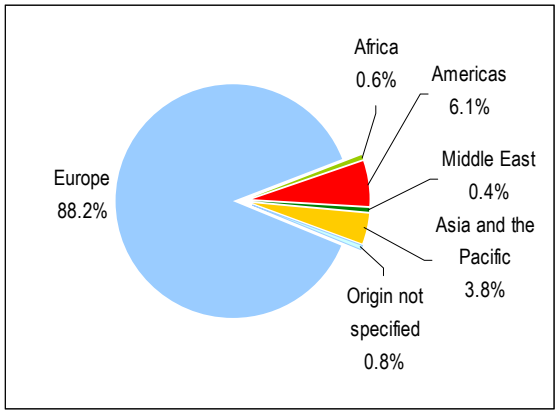
Experience, supported by UNWTO findings, shows that in times of economic prosperity and geopolitical stability tourists tend to travel further from home while in times of insecurity they tend to travel to well-known destinations closer to home as well as changing means of transport from air travel to road transport.

The table below illustrates this development as it can be seen in the increase in intraregional travel from 2000 (September 11 and economic downturn) to 2004. But in 2005 one major trend when looking at arrivals to European countries was that arrivals from long-haul travel had picked up, which seems to have favoured in particular old mature destinations.[14] This is a development that is likely due to a more favourable world economic situation.

[14] UNWTO World Tourism Barometer vol.

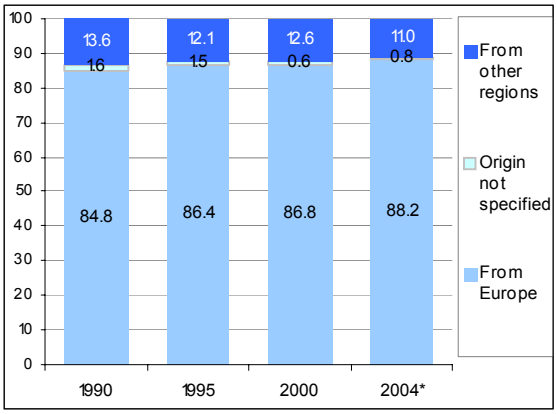
Figure 7.5: Intraregional travel

Europe: Inbound tourism by region of origin
International Tourist Arrivals, 2004* (share, %)



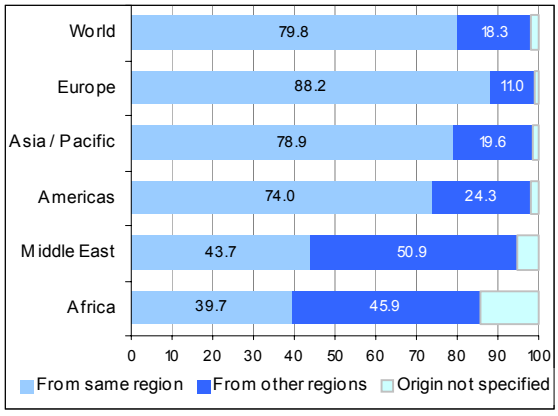
Source: World Tourism Organization (UNWTO) ©

Europe: Inbound tourism by region of origin
International Tourist Arrivals (share, %)



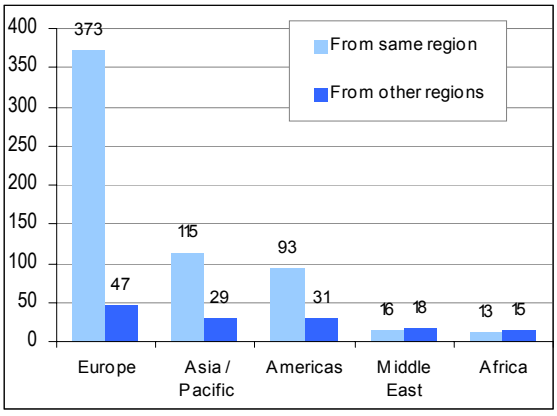
Source: World Tourism Organization (UNWTO) ©

World and regions: Inbound tourism by region of origin
International Tourist Arrivals, 2004* (share, %)



Source: World Tourism Organization (UNWTO) ©

World regions: Inbound tourism by region of origin
International Tourist Arrivals, 2004* (million)



Source: World Tourism Organization (UNWTO) ©

Tourism in Europe is not just growing in volume. The very structure of tourism flows is changing as the way people are going on holiday is changing. One major change affecting first the transport infrastructure and then the tourism facilities and attractions is that people tend to take more and shorter trips. An important driver behind the increase in international arrivals in recent years has been short city breaks of 1 or 2 nights[15].

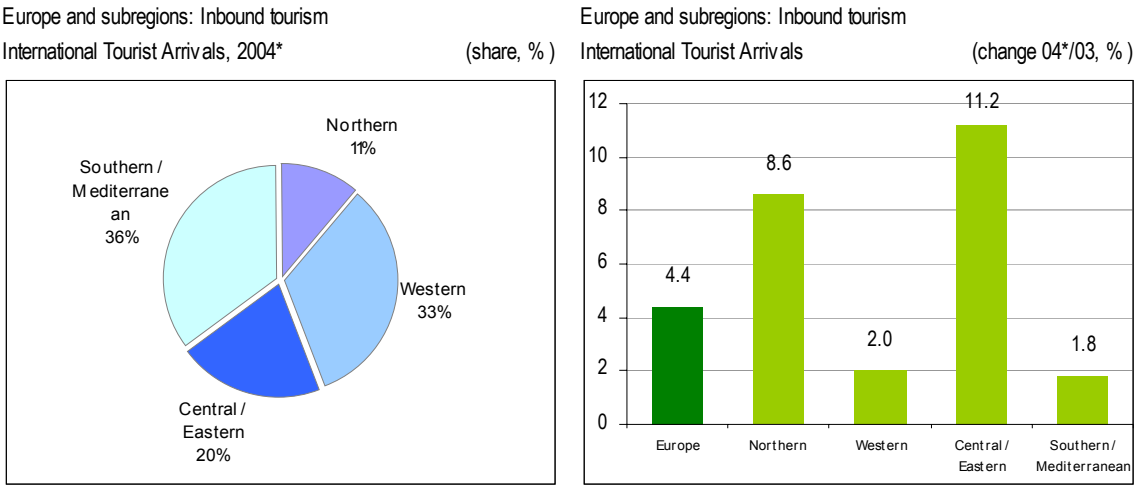
[15] City breaks of 1-2 nights are not reflected in the 417 million trips as collected by Eurostat as these trips are recorded as "trips of 4 nights or more".

At the same time when comparing[16] different statistical sources, it can be seen that results from occupancy surveys compared with results from information from tourists show that many tourists would be touring around in the destination.

An example is the Spaniards' length of stay in Denmark. From the household surveys it appears that in 2001 Spaniards had an average length of stay of 21 nights while the hotels report average stays of only 3.5 days.

Within Europe the internal pattern of intraregional travel is shifting from traditional destinations in the south and west to Eastern Europe and Eastern part of the Mediterranean.

Figure 7.6: Inbound international tourism to parts of Europe



Compared to other regions, land transport is the most common means of transport for tourists traveling to or in Europe (55% of arrivals are by land).

This is not surprising looking at the high level of intraregional tourism combined with well developed road and rail infrastructures, short distances and easy accessibility for members of the EU because of no visa requirements (Schengen). Air transport however has gained in importance since 1990 reducing the market share of land transport. Because of the deregulation of air transport, low cost airlines have flourished resulting in expanded accessibility by air and lower prices. Air transport accounted for 38% of all arrivals in 2004, growing from 32% in 1990.

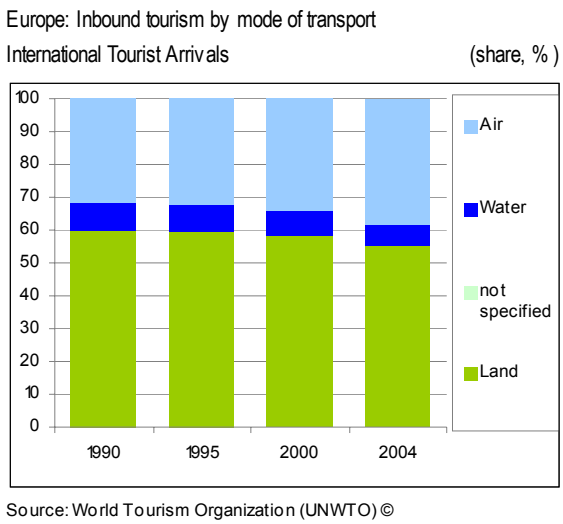
[16] Enzo Paci Papers, vol 4, Measuring Intra-Regional Flows in Europe, UNWTO 2004

The car is the most popular means of holiday transport for Europeans followed by air travel, bus/coach travel, railway and water transport. Over 60 % of Spaniards, Dutch, Italians, Portuguese and Swedes use cars for holidays while Danes have a relatively higher preference for air transport. Use of air travel is above average for the UK, Denmark, Luxembourg, Austria and Germany. In the case of UK it is because the country has a unique geographical situation whereas the other countries have a relatively high level of outbound travel.

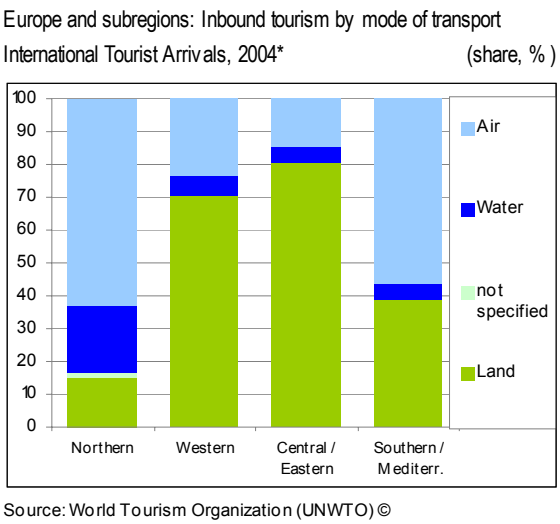
Private cars are mostly used for domestic tourism. Only the Dutch and Belgians prefer (more than 50%) to use their private car to travel abroad. The geographical situation explains the heavy use of air transport for overseas trips for the UK (Ireland and Finland). In third place comes coach/bus and rail travel. French, Italian, Finnish and Swedish tourists use rail more often than coaches and buses, whereas it is the opposite for the other countries. Ferries are used by the Greeks (23.1%), while for the other countries this mode of transportation accounts for less than 5% of trips.

In Northern and in Southern/Mediterranean Europe, air traffic accounts for a major percentage of all arrivals with respectively 63% and 57%. This can be explained due to the distance between the markets and destinations within Europe whereas the proximity and well developed infrastructure between Western and Central and Eastern Europe explains the high rates of land transport arrivals, 71 and 80 for these areas. Arrivals by water accounted for less than 7% in all Europe, but 20 percent in Northern Europe.

Figure 7.7: Mode of transport



Source: World Tourism Organization (UNWTO) ©



Source: World Tourism Organization (UNWTO) ©

Apart from Austria, European countries have their main peak season in the summer with August and September as the peak months and November with the lowest level of activity. A number of countries have 2 seasons: Winter and Summer, but there is a trend towards a better distribution of tourism to periods outside the peak season (mainly due to the trend "shorter but more often", increased interest in culture, cities (city-breaks) and travel for specific events)

In 2004, the third quarter was the quarter where all countries but Austria reported the largest number of non-resident nights. The first quarter, the lowest numbers were reported in all countries except Italy, Austria, Slovakia and Finland who all have important winter sports.

According to Eurostat "the relative difference between the worst and the best quarters gives an indication of the seasonal dependency of a country on foreign countries". According to this index, most EU-countries range between low factors of 1.5 and 3.0 except for Greece that has the highest seasonal dependency with a factor 22.

For Europe as a whole private accommodation is the preferred choice, with hotels and similar establishments the second choice, other collective establishments (like campsites) being third.

In 2004, bed nights spent by non-residents in accommodation establishments were 862 million in the EU-25, which corresponds to more than 40% of all nights, spent: 2.155 billion. Nights spent in private accommodation are not included in these figures whereas private accommodation is the preferred form of accommodation by residents from Greece, Spain, Italy, Finland and Sweden, particularly with regards to domestic tourism. Germans and residents from Luxembourg spent 40-50% of overnight stays in hotels.

7.2 Europe as a generator of tourism

Europe is the main generating destination in the world, but the percentage of the population going on holiday is very different from country to country. (76.9% of Germans, 31.2% of Portuguese (Eurostat 2006).

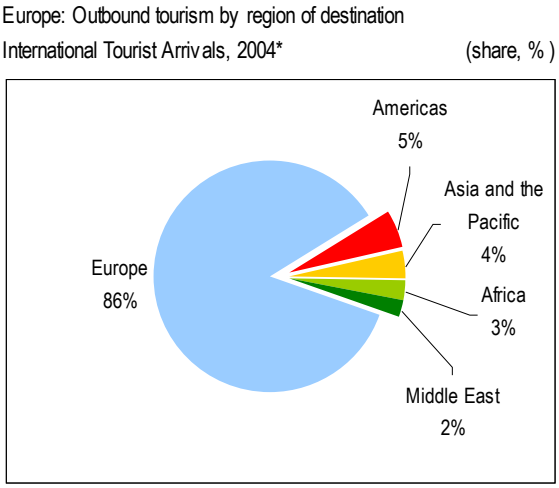
EU-citizens made more than 417 million trips of four nights or more in 2004. 57% were domestic trips and 43% outbound trips.

Europe is the preferred destination for most trips, 88% of all arrivals are in Europe.

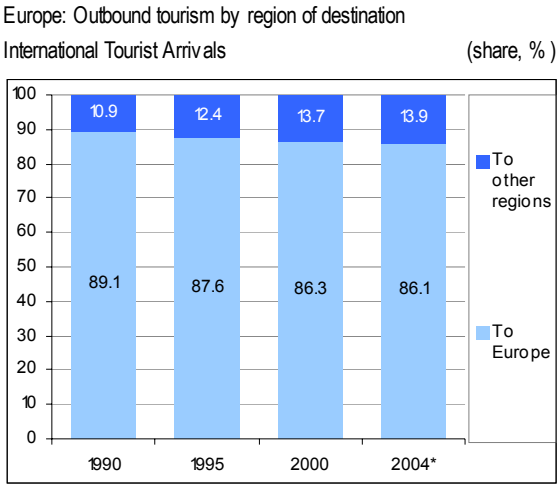
The number of trips abroad was increasing from 2000 to 2005 (except for Germany) and at the same time the length of stay is decreasing reflecting the general trend towards more but shorter trips.

In Belgium, Denmark, Spain, Italy, Austria and Portugal the trip frequency is just below 2 trips per year. Finland, Germany and the United Kingdom have frequencies of 2 trips and Sweden has the highest frequency with 3.1 trips per year. In reality the frequency of trips is higher than what is recorded by official statistics as the figures are based on stays of 4 nights or more. Consequently the increasing market for short breaks with 1 to 3 overnight stays is not included (Eurostat Theme 4 15/2002).

Figure 7.8: Outbound international tourism from European countries



Source: World Tourism Organization (UNWTO) ©



Source: World Tourism Organization (UNWTO) ©

Over half of the trips recorded in Denmark, Ireland, Austria, France, Sweden and the UK involve stays of 4 to 7 nights, whereas Germany differs from the other countries with 42.7% of all trips being trips of 8-14 nights.

Seven countries (Greece, Spain, Italy, Portugal, Finland, Sweden and the United Kingdom) have more domestic trips than outbound trips, contrary to Belgium, Denmark, Germany, Ireland, Luxembourg, the Netherlands and Austria.

In Greece, Spain, Italy, Portugal, Finland, Sweden and the UK, the population tends to spend their holiday in their own country. For Greece and Spain this proportion is more than 90% (2000). By contrast more than 60% of all trips taken by residents in Belgium, Denmark, Germany, Ireland, Luxembourg, the Netherlands and Austria are outbound.

7.3 Conclusions

Europe is the primary tourist destination in the world as well as the primary generator of international tourism. According to forecasts, tourism will continue to grow in volume, even if Europe's market share is constantly reduced in a worldwide context.

Travel patterns are also changing. Tourism in Europe is, as in the rest of the world, witnessing a tendency to take more trips, more frequently although the average length of each stay has been reduced. The main flow of tourists is from North to South, and within Europe from the Northern to the Mediterranean countries. Signs of a re-distribution can now be seen as tourists start visiting new destinations in Central Eastern Europe.

One factor that has affected the demand side is the changes in the demographic structure of European countries with an increasing number of older people who have a significantly higher spending power than previous generations.

New developments in the transport sector like low cost airlines have been an important factor behind the increasing numbers of travellers. They also have stimulated a shift in the pattern of tourism flows. In general, low cost airlines favour secondary airports and as a result, areas close to such airports have seen tourism growing. Many tourists tend to visit several places during their holidays. The combined upcoming of low cost airlines and city breaks have resulted in increased point to point travel.

Tourism is concentrated around a summer and a winter season. City breaks and travel for culture and events have particularly benefited spring, winter and autumn seasons – even though July and August remain the peak season.

The purpose of visit, i.e. the very reason for travelling is also shifting in character. In the past, a market segment like "visiting friends and relatives" has shown to be more resilient to external shocks. Business tourism (meetings, conferences, exhibitions etc.) is more sensitive to economic developments and seems to follow the economic cycle, whereas holidays and leisure travel, though subject to macro economic fluctuations, seems to be less sensitive to external factors than business tourism. Demand for leisure is more stable than demand for business travel; it is the travel patterns that are affected (more often, shorter stays, shift of destination etc.) Thematic areas like culture, nature, heritage and wellness are growing, while "sun and sea" has witnessed a relative decline in recent years, although it still remains important. City tourism is growing faster than the traditional "sun and sea" segment.

The statistics we have referred to above concern international travel only. For regional development and spatial planning, domestic travel is even more important since volumes are larger here in most counties and for a great majority of destinations. There are however not so many data available on domestic tourism as compared to inbound and outbound travel. Countries receiving a high number of tourists and where the residents also seem to prefer to stay in their own country of residence for holidays (e.g. Greece and Spain) will experience higher pressure on destination infrastructure and their physical space than countries where there is a high level of outbound travel during the holiday season. Environmental and congestion problems are also independent of the travellers' passports, since road congestion (especially in August), the use of non-renewable energy and CO2 emissions are local as well as global challenges for spatial planning.

Hotels have always been an important economic factor in tourism and many statistics concern hotels and larger accommodation units. But from the description of the preferred forms of accommodation of Europeans, it appears that private accommodation plays an important role in tourism. This gives us a reason to point to the need for more data on the use of private accommodation and its relative importance in terms of distribution of flows, since the geographical situation of private accommodation and the related travel pattern is likely to differ from the use of hotel accommodation. An increase in the construction of second homes will also need to be included in a more holistic approach on the relation between use of physical space and type of accommodation. This substitution effects towards private accommodation services is an increasing issue of concern for tourism business, especially in the main European destination areas.

Looking at the different characteristics used to describe tourism in Europe, arrivals, means of transport, purpose of visit, structure of flows etc. it is evident that when analysing tourism, tourism's impact and its future development, a number of factors which are interrelated, have to be analysed further and taken into account when assessing the need for physical policy and planning. Furthermore these factors are influenced by a number of external factors like macroeconomic development, care for the environment and the possibilities for significantly higher energy prices, as well as demographic and technological factors.

There is a need to clearly identify key issues of tourism on regional development across Europe: travelling, physical planning at destinations, employment and economic impacts, as well as natural and cultural heritage protection are the basic core. Consequently, the initiatives to be explored would relate to: tourism flows, tourism economic contributions, and sustainability impacts.

8. Sub-national variations in tourism development

We have in previous chapters seen that there hardly exist any data for comparative studies of tourism at sub-national level in Europe. The best information source is Eurostat's data on accommodation capacity and visitors numbers. However, it is well known that these data are not always directly comparable either due to variations in definitions or because of the use of inconsistent data collection methods. Bearing this admonition in mind, we now cautiously use the available tourism-related figures to describe the intensity of tourism development in European regions.

8.1 Indexes for the impact of tourism

One of the purposes of this pilot project is to develop a typology of tourist regions within the ESPON countries. The aim is to compare European regions with each other and to identify where in Europe tourism has the largest impacts.

A typology of destinations can be developed through the use of tourism penetration measures. An indicator of tourism penetration aims at identifying the scale and effect of tourism in any given destination. Traditionally, such measures have been linked to the overall concept of carrying capacity. In other words, researchers have tried to develop measures to identify the extent to which a destination has been saturated in terms of tourist arrivals.

Identifying the extent to which a destination is saturated by tourists and their activities allows one to gain a basic understanding of the mix of economic, socio-cultural, and environmental effects. Based on this, one can then determine the stage at which any given destination exists along an evolutionary continuum (Butler 1980). This means that a number of destinations can be compared according to their level of tourism development. According to this comparison a simple typology can be developed.

What is then an appropriate indicator of tourism penetration? And does available data allow the development of a reliable measure? Simple indices of tourism penetration are tourism's contribution to GDP (an economic measure), the number of arrivals per resident population (a social measure), the number of hotel rooms per square kilometre (an environmental measure) and so on. Such measures, though crude, serve as illustrations of the impact on tourism in a particular destination especially if the assessment is undertaken on a comparative basis.

However, they are usually one-dimensional indices, meaning that they only describe a single effect (for instance, either economic impact or environmental pressure) rather than giving the full picture as to how tourism leaves its imprint on the destination. For this reason, some authors have recommended the development of more complex indices including the tourism penetration index (TPI).

McElroy and de Albuquerque (1998) maintain that a TPI can be created using one-dimensional indicators from available data. It is also an indicator that is simple to interpret; "sufficiently comprehensive to capture the major dimensions of tourism penetration; and . . . suitable for wide applicability". They suggest combining sub-indices, which respectively measure economic, sociocultural, and environmental penetration to create one composite TPI. As such, they recommend visitor spending per resident population to estimate economic penetration. The number of arrivals per 1000 population can be used to indicate social penetration. Finally, to represent environmental penetration they suggest calculating the number of hotels rooms per square kilometre.

In the sections that follow two separate attempts to develop a typology of EU destinations are therefore described:

- The first involves the development of a typology through the use of the *tourism function index (TFI), a one-dimensional means of describing spatial variations in tourist accommodation* from country to country. Given the availability of data on accommodation capacity, for country, NUTS II and NUTS III regions, this is a measure that can be calculated with ease. Another crude measure, namely one measuring the density of hotels in various countries is also provided.
- The second approach for typology development is based on the development of a *composite tourism penetration index (TPI).* The advantages and disadvantages of using either of these methods are discussed and suggestions for improvements in methodology are made.

8.2 The tourism function index

The development of tourism exhibits enormous spatial variation, both *between* countries but also *within* countries. In Europe there are countries like Greece and Portugal where tourism-related activities have left a heavy imprint on their landscape (or at least part of their landscape) compared to other countries like Romania or Poland where tourism development is in its nascent stage. Moreover, within any one country tourism does not develop evenly but instead gravitates towards areas with a competitive advantage in terms of their natural and/or historic

resources. For example, in Greece much of the tourism accommodation stock is heavily concentrated on certain islands (particularly those in the southern half of the Aegean Sea) and coastal areas, whereas in large parts of the northern Greece tourism development is still at an early stage. Additionally, on individual islands the distribution of tourist facilities is uneven (Ioannides 2001; Pearce 1996).

One way to measure spatial variation in the supply of tourist facilities is to examine the distribution of accommodation either according to population or area (Pearce 1996). This is because hotels and other related facilities are highly visible on the landscape but also because countries are more likely to collect data on accommodation (e.g., beds or rooms in hotels and other related establishments) than any other element of tourism supply. There are various methods for estimating spatial variation of tourism accommodation and these have been used to develop thematic maps, which demonstrate regional variations in the intensity of tourism activity.

8.2.1 TFI at the national level

Perhaps, the most common measure is the tourist function index (TFI), developed by Defert (1967). According to Pearce (1996) this index allows one to compare for any given destination the accommodation capacity (normally expressed in numbers of beds or rooms) with the resident population. In other words, the TFI is calculated: *TFI= (N*100)/P* where N = number of rooms or beds and P is the population. The range of the TFI extends from 0 to infinity. If there is little accommodation in the area the TFI will be close to zero, whereas if there is a lot of accommodation in an area with a small resident population then the TFI will be high.

To illustrate the possibilities and limitations of the TFI, we have in this study created a TFI based on compilation of data from the Eurostat database (Tourism) and the ESPON database (Population and Area) from 2003 for the NUTS 0, NUTS II and NUTS III levels. The category chosen was "Hotels and other similar establishments" (i.e. excluding camping, vacation homes etc.) with data on number of hotels, bed-rooms and bed-spaces[17]. The actual TFI calculated and discussed here is on number of bed-spaces based on area and population.

At the national level (NUTS 0), TFI were estimated for all ESPON countries except Romania and Switzerland for which data were not readily available (Table 8.1 and Figure 8.1). Obviously, the indices when used for an entire country are vastly

[17] Data that however not are totally comparable from country to country, as described earlier in this report.

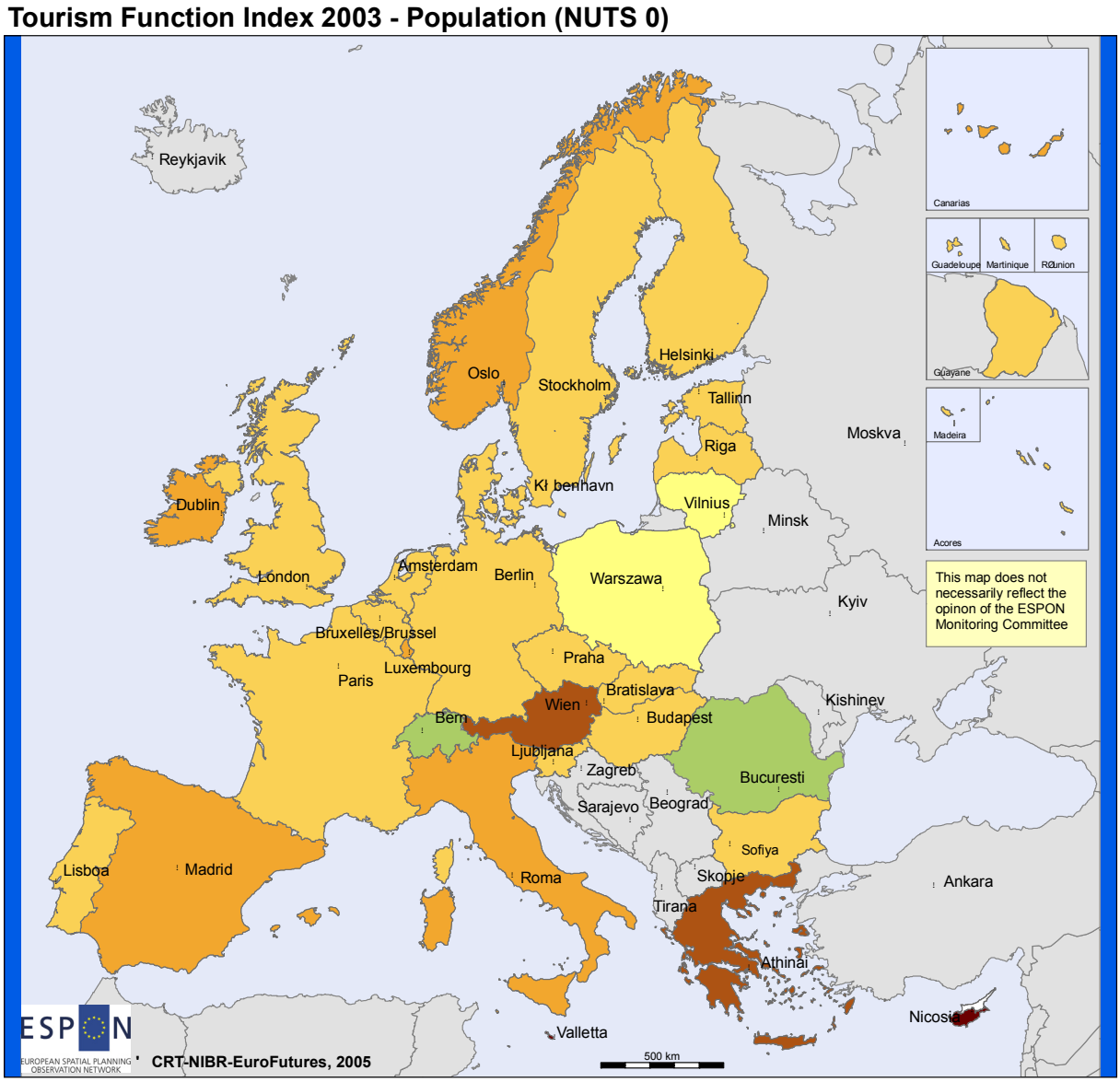
misleading because they aggregate the accommodation stock for each of the countries and fail to demonstrate the spatial variations within each country. This means that for a large country like Spain where much of the accommodation is concentrated in coastal and insular areas, an aggregated TFI will be on the low side.

Nevertheless, for the purposes of demonstrating differences between the EU countries in terms of intensity of accommodation stock the TFI serves its purpose as a simple indicator. Generally speaking the calculated TFIs were on the low side for all EU countries, the highest being 12.78 for Cyprus and Malta (10.10). Greece and Austria feature indicators significantly higher than the mean (2.97) indicating the dominance of tourism in these countries. The lowest TFIs are for Eastern European countries demonstrating that in these areas the supply of formal accommodation stock (that is officially measured) is lower than in western and southern Europe.

Table 8.1: Population-based Tourism Function Index, national level, 2003

COUNTRY		TFI Population
CY	Cyprus	12.78
MT	Malta	10.10
AT	Austria	6.99
GR	Greece	5.86
IE	Ireland	3.69
ES	Spain	3.48
IT	Italy	3.44
LU	Luxembourg	3.27
NO	Norway	3.16
PT	Portugal	2.36
FI	Finland	2.31
CZ	Czech Republic	2.22
SE	Sweden	2.07
FR	France	2.01
DE	Germany	1.95
BG	Bulgaria	1.83
UK	United Kingdom	1.79
HU	Hungary	1.56
SI	Slovenia	1.46
EE	Estonia	1.35
DK	Denmark	1.24
BE	Belgium	1.18
NL	Netherlands	1.11
SK	Slovakia	1.03
LV	Latvia	0.64
LT	Lithuania	0.41
PL	Poland	0.35
	Mean TFI Population	***2.97***

Figure 8.1: Population-based Tourism Function Index, national level, 2003



The TFIs that have been described are based on a destination's population. Another simple approach would be to measure a TFI according to a destination's area. In this case the exercise was repeated (substituting area for population) and produced the following findings (Table 8.2 and Figure 8.2).

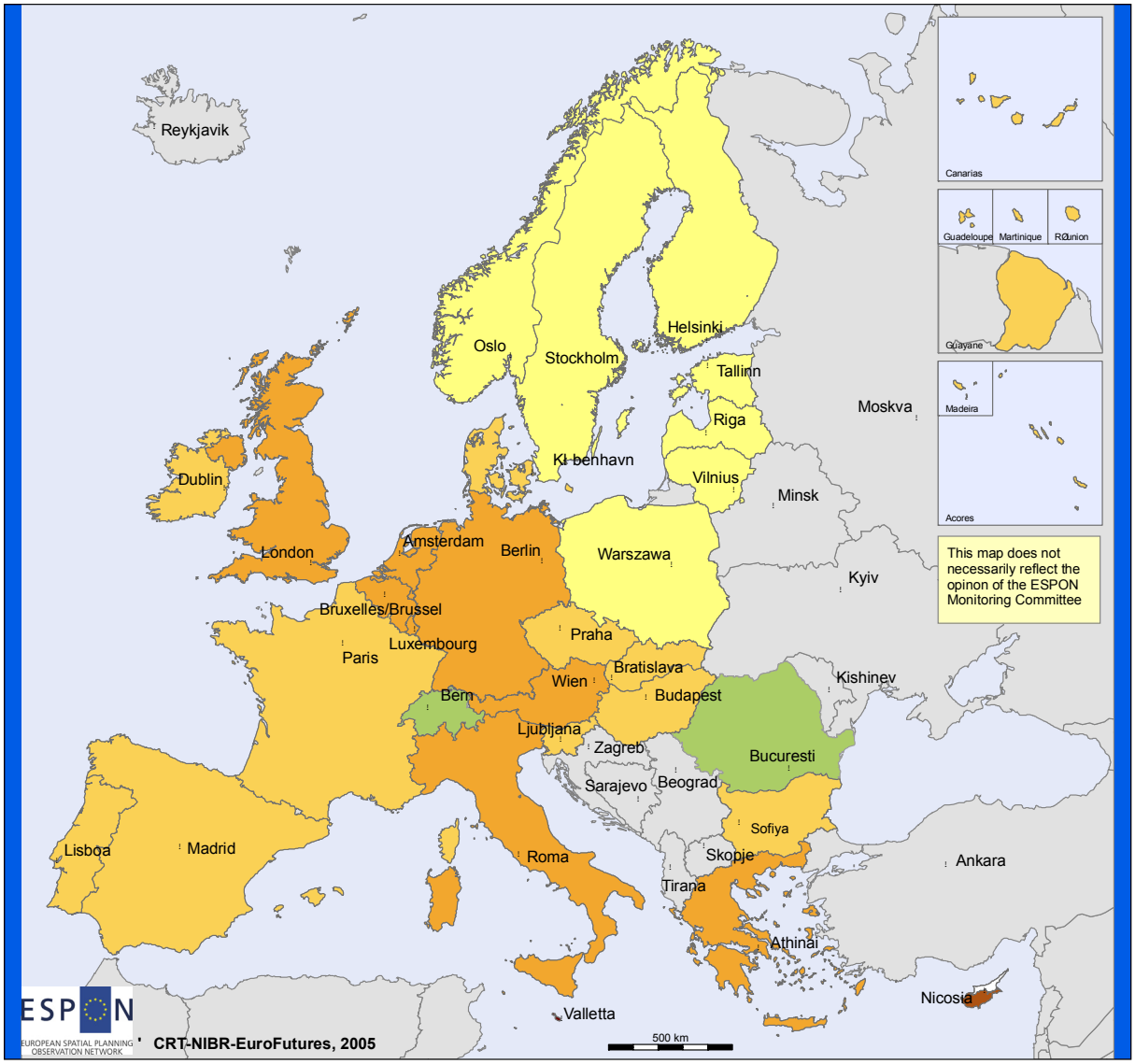
In this case the TFI for Malta is excessively high because of its very small area (320 km^2). Cyprus is considerably larger than Malta (area-wise) and thus slips to number two on the TFI scale, though it is still much smaller than the other destinations in the EU. Actually, with this measurement, Malta and Cyprus, carry so much weight that they are the only two countries above the average. Countries like Lithuania, Latvia, Estonia, and Poland had exceedingly small TFIs compared to the mean and the median demonstrating, once more, that the availability of formal tourist accommodations in these destinations is on the low side.

Table 8.2: Area-based Tourism Function Index, national level, 2003

COUNTRY		TFI area
MT	Malta	12694.6
CY	Cyprus	1605.3
LI	Liechtenstein	725.0
AT	Austria	675.2
IT	Italy	653.6
LU	Luxembourg	566.0
GR	Greece	488.7
DE	Germany	451.3
UK	United Kingdom	435.6
NL	Netherlands	433.8
BE	Belgium	400.9
CZ	Czech Republic	287.5
ES	Spain	286.9
PT	Portugal	267.3
FR	France	224.9
IE	Ireland	208.9
HU	Hungary	170.5
DK	Denmark	155.1
SI	Slovenia	143.9
BG	Bulgaria	129.7
SK	Slovakia	112.8
NO	Norway	44.4
PL	Poland	43.0
EE	Estonia	42.0
SE	Sweden	41.9
FI	Finland	35.5
LV	Latvia	23.2
LT	Lithuania	22.0
	Mean TFI Area	***764.6***

Figure 8.2: Area-based Tourism Function Index, national level, 2003

Tourism Function Index 2003 - Area (NUTS 0)



TFI - Area

- **0,0 - 80,0**
- **80,1 - 300,0**
- **300,1 - 800,0**
- **800,1 - 5000,0**
- **5000,1 - 12694,6**
- **ESPON space, but no data**
- **No data**

' EuroGraphics Assosiation for the administrative boundaries

Source: Eurostat; Norway and Switzerland: National Statistical Offices

Tourism Function Index (Area) = number of bed-spaces in hotels or similar establishments (x100) in relation to the km^2 of the region

8.2.2 TFI at NUTS 2 level

It is obvious from the TFI exercise above that the analysis at NUTS 0 level (country level data) does little to reveal spatial variation of intensity of tourism development. In order to demonstrate the regional diversity in Europe, an investigation has to be done at the sub-national level (NUTS II and NUTS III).

However, at NUTS II level (total of 282 regions), there is still no greater regional variation in terms of TFI based on population (Figure 8.3).

Not surprisingly, the TFI based on population at NUTS II level, indicates the strong position of Portugal (Algarve), the Greek Islands, Austria, the Balearic Islands and northern Italy, all of them exhibiting a high intensity of tourism activity. These destinations also dominate in the table of the 25 highest ranked NUTS II regions in terms of TFI (Table 8.3). There are actually only three northern European regions qualifying among the highest 25 regions, with the Finnish island, Åland, being the highest placed. On the contrary, northern and eastern Europe is strongly represented among the lowest ranked NUTS II regions, particularly the regions in the Baltic States and Poland (Table 8.4).

Table 8.3: High 25 on the population-based TFI, NUTS 2 level, 2003

GR42	Notio Aigaio	**49.87**
ES53	Illes Balears	**35.63**
GR22	Ionia Nisia	**35.13**
ITD1	Provincia Autonoma Bolzano-Bozen	**31.52**
AT33	Tirol	**26.57**
PT15	Algarve	**23.97**
GR43	Kriti	**21.99**
ITD2	Provincia Autonoma Trento	**19.68**
ITC2	Valle d'Aosta/Vallée d'Aoste	**19.31**
AT32	Salzburg	**18.48**
CY00	Kypros / Kibris	**12.78**
AT21	Kärnten	**12.18**
PT30	Região Autónoma da Madeira (PT)	**11.10**
FI20	Åland	**10.97**
GR41	Voreio Aigaio	**10.69**
MT00	Malta	**10.10**
AT34	Vorarlberg	**9.47**
ES70	Canarias (ES)	**8.42**
FR83	Corse	**7.69**
NO02	Hedmark og Oppland	**6.97**
ITD5	Emilia-Romagna	**6.92**
UKK3	Cornwall and Isles of Scilly	**5.95**
BG23	Yugoiztochen	**5.44**
GR25	Peloponnisos	**5.23**
GR24	Sterea Ellada	**5.21**

Figure 8.3: Population-based Tourism Function Index, NUTS 2 level, 2003

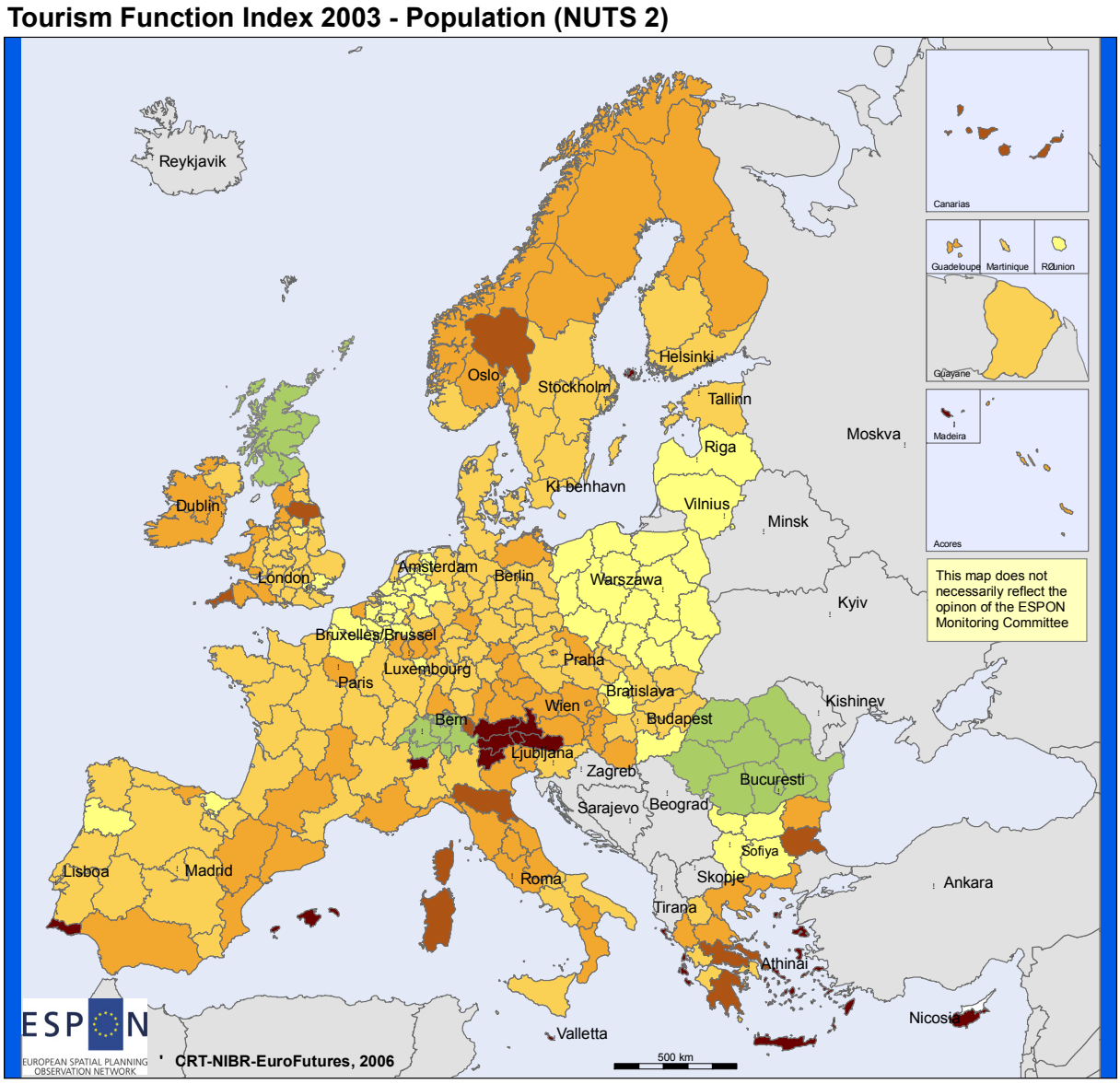
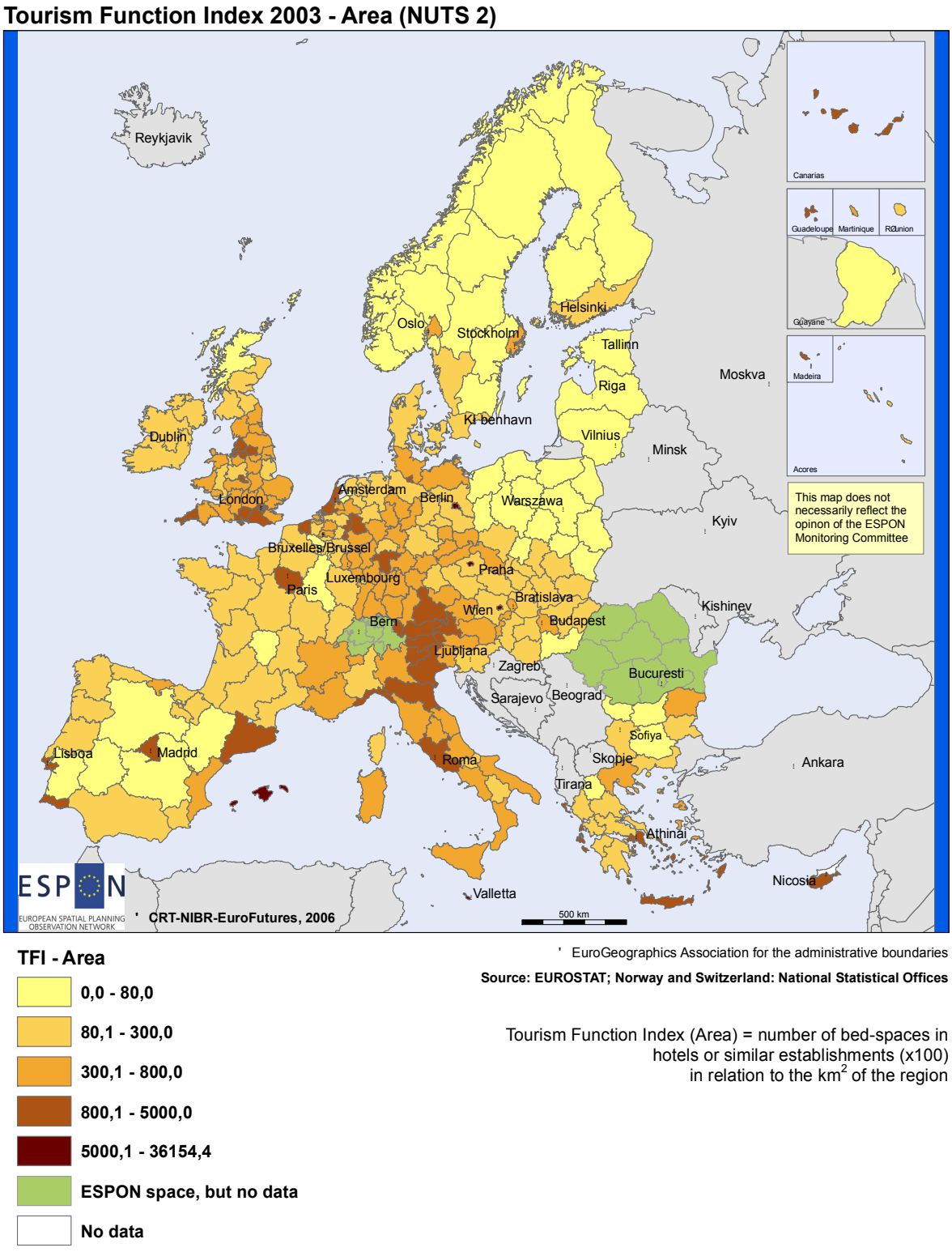


Table 8.4: Low 25 on the population-based TFI, NUTS 2 level, 2003

LV00	Latvija	**0.64**
BE22	Prov. Limburg (B)	**0.63**
PL21	Malopolskie	**0.61**
NL41	Noord-Brabant	**0.59**
BE31	Prov. Brabant Wallon	**0.58**
PL51	Dolnoslaskie	**0.56**
BG12	Severen tsentralen	**0.53**
PL42	Zachodniopomorskie	**0.47**
PL63	Pomorskie	**0.47**
PL43	Lubuskie	**0.43**
BE23	Prov. Oost-Vlaanderen	**0.43**
PL12	Mazowieckie	**0.41**
LT00	Lietuva	**0.41**
PL41	Wielkopolskie	**0.32**
NL23	Flevoland	**0.29**
PL33	Swietokrzyskie	**0.26**
BE32	Prov. Hainaut	**0.23**
PL61	Kujawsko-Pomorskie	**0.22**
PL22	Slaskie	**0.22**
PL34	Podlaskie	**0.21**
BG11	Severozapaden	**0.20**
PL11	Lódzkie	**0.19**
PL32	Podkarpackie	**0.17**
PL52	Opolskie	**0.15**
PL31	Lubelskie	**0.15**

When looking at TFI based on area for NUTS II, a higher degree of regional variation appears. With this measurement, the tourism intensive regions extend to include large parts of Italy, southern France, eastern Spain, the mountainous regions of Austria, Germany and Switzerland, as well as southwest England (Figure 8.4). Once again, well-known tourist destinations dominate the rankings.

Figure 8.4: Area-based Tourism Function Index, NUTS 2 level, 2003



A closer look reveals that the highest ranked NUTS II regions include the large metropolitan areas, with Inner London and Brussels being in a 'league of their own' (Table 8.5). Once again, what is demonstrated here is quite simply that these areas, which are fairly small geographically, are very tourism intensive in terms of bed-spaces in hotels.

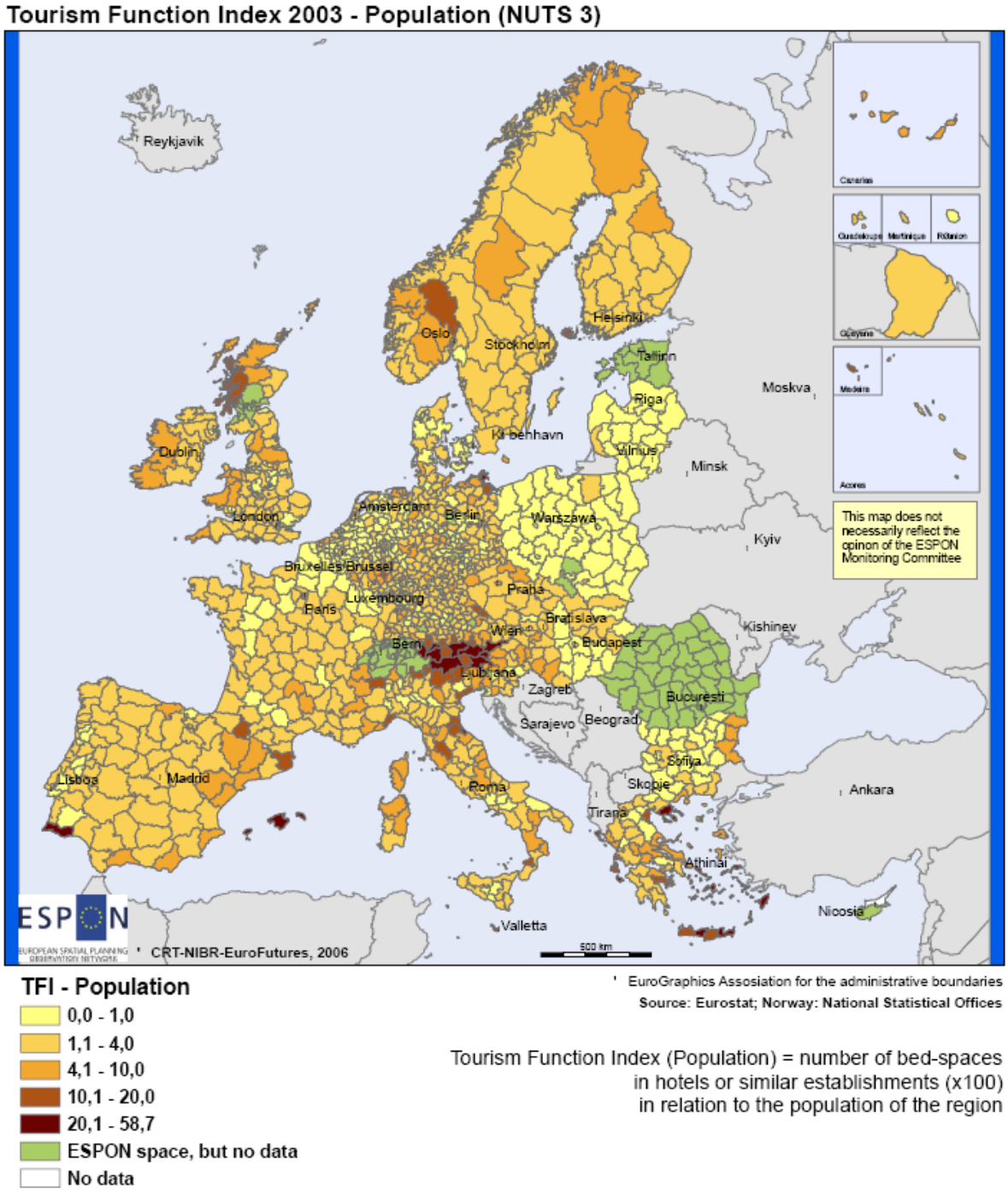
Table 8.5: High 25 on the area-based TFI, NUTS 2 level, 2003

UKI1	Inner London	**36154.4**
BE10	Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest	**19425.0**
MT00	Malta	**12710.7**
CZ01	Praha	**10085.7**
AT13	Wien	**9585.0**
ES64	Ciudad Autónoma de Melilla (ES)	**7230.8**
DE30	Berlin	**6763.2**
ES53	Illes Balears	**6469.0**
ES63	Ciudad Autónoma de Ceuta (ES)	**5084.2**
UKD3	Greater Manchester	**4996.0**
UKG3	West Midlands	**3828.6**
DE60	Hamburg	**3826.6**
GR22	Ionia Nisia	**3292.8**
PT30	Região Autónoma da Madeira (PT)	**3233.8**
GR42	Notio Aigaio	**2846.2**
UKI2	Outer London	**2586.1**
UKD5	Merseyside	**2551.4**
FR10	Île de France	**2398.2**
UKD4	Lancashire	**2283.2**
DE50	Bremen	**2171.2**
ES70	Canarias (ES)	**2062.5**
ITD1	Provincia Autonoma Bolzano-Bozen	**1990.5**
PT15	Algarve	**1913.9**
CY00	Kypros / Kibris	**1605.3**
GR30	Attiki	**1585.0**

8.2.3 TFI at NUTS 3 level

When we move to the NUTS III level, the picture becomes more complex and the regional variation more visible (Map 8.5). This is particularly evident in the case of the TFI based on population, where we now can identify regional variation at a European level, within a country and even within a NUTS II-region.

Figure 8.5: Population-based Tourism Function Index, NUTS 3 level, 2003



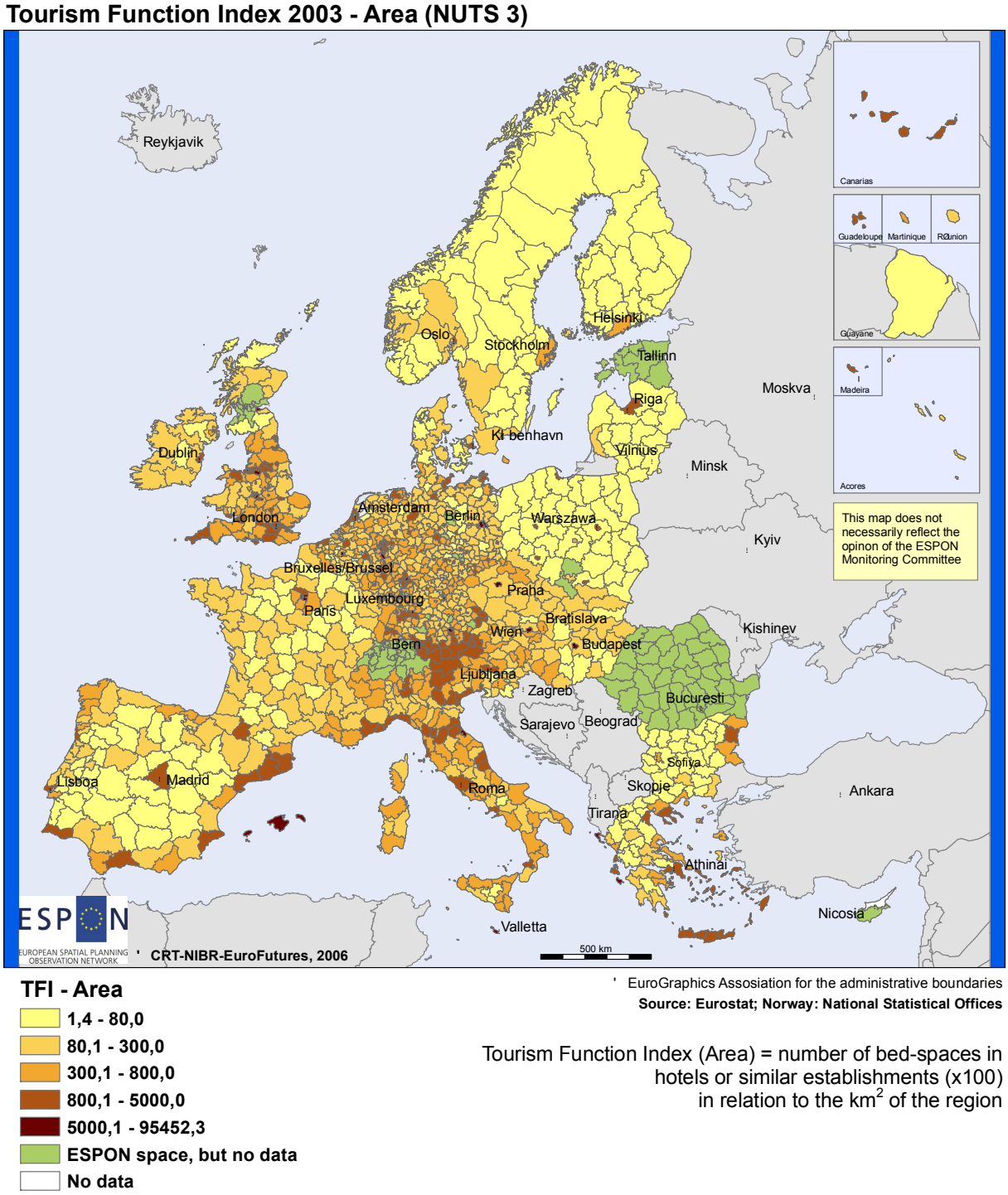
The table revealing the highest placed NUTS III regions (table 8.6), reinforces the position of Greece, Spain, Austria, and Italy as very tourism intensive, but it also show that Blackpool in the UK and Rügen in Germany have an excessive number of bed spaces relative to their population. Perhaps this not so surprising, given the fact that both of these areas have historically been well-known resort areas.

Table 8.6: High 25 on the population-based TFI, NUTS 3 level, 2003

GR421	Dodekanisos	**58.69**
GR221	Zakynthos	**55.36**
AT334	Tiroler Oberland	**53.08**
ITD59	Rimini	**50.74**
AT331	Außerfern	**41.91**
AT322	Pinzgau-Pongau	**40.86**
GR127	Chalkidiki	**39.51**
UKD42	Blackpool	**37.16**
GR222	Kerkyra	**36.55**
ES530	Illes Balears	**35.14**
GR422	Kyklades	**34.44**
GR433	Rethymni	**33.57**
AT335	Tiroler Unterland	**32.62**
ITD10	Bolzano-Bozen	**31.37**
AT341	Bludenz-Bregenzer Wald	**31.13**
GR432	Lasithi	**27.34**
AT321	Lungau	**25.92**
GR412	Samos	**25.52**
PT150	Algarve	**23.76**
DE80H	Rügen	**22.50**
AT212	Oberkärnten	**22.17**
AT222	Liezen	**20.19**
ITD20	Trento	**19.53**
GR431	Irakleio	**19.50**
GR223	Kefallinia	**19.35**
ITC20	Valle d'Aosta/Vallée d'Aoste	**19.22**

The regional variation also becomes more visible in the case of the TFI based on area (Figure 8.6). The strong Mediterranean tourism axis – spanning from Algarve, the Spanish coast, southern France, northern Italy down to the Greek islands is clearly evident on this map.

Figure 8.6: Area-based Tourism Function Index, NUTS 3 level, 2003



The urban dimension of the TFI based on area becomes even more evident at the NUTS III level, as indicated in the table of the highest ranked regions (table 8.7). However at this level, the top position is not held by any major metropolitan area, but by the UK resort town Blackpool, which together with Paris and London is way above the rest. While, undoubtedly, these metropolitan areas have a high amount of tourism accommodation stock, it is possible that some other urban areas such as in Denmark misleadingly exhibit a much lower area-based TFI because in the case of the British cities all accommodation stock is provided in statistical publications, whereas in these countries only facilities with a minimum number of bed spaces or rooms report data (i.e., facilities with fewer than 50 bed spaces may not be counted).

Table 8.7: High 25 on the area-based TFI, NUTS 3 level, 2003

UKD42	Blackpool	**151610.3**
FR101	Paris	**146134.7**
UKI11	Inner London – West	**95452.3**
UKK42	Torbay	**29998.4**
ITD59	Rimini	**26536.8**
BE100	Arr. de Bruxelles-Capitale/Arr. Van Brussel-Hoofdstad	**19425.0**
DK001	København og Frederiksberg Kommuner	**18726.8**
UKK21	Bournemouth and Poole	**18269.6**
MT001	Malta	**15657.3**
FR105	Hauts-de-Seine	**13547.8**
DE212	München, Kreisfreie Stadt	**12234.8**
UKJ31	Portsmouth	**10962.8**
UKJ21	Brighton and Hove	**10434.3**
CZ010	Hlavní mesto Praha	**10085.7**
DE712	Frankfurt am Main, Kreisfreie Stadt	**9923.5**
UKD31	Greater Manchester South	**9641.7**
AT130	Wien	**9585.0**
UKM34	Glasgow City	**9346.3**
UKD52	Liverpool	**8828.9**
FR106	Seine-Saint-Denis	**8366.6**
UKF14	Nottingham	**8052.3**
UKJ32	Southampton	**8018.1**
DEA11	Düsseldorf, Kreisfreie Stadt	**7470.0**
ES640	Melilla (ES)	**7230.8**
UKM25	Edinburgh, City of	**6873.0**

Although it is evidently a crude measurement, the Tourism Function Index at the NUTS III level provides us with a tool to visualize the spatial impacts of tourism. However, the comparability at a European level is limited due to data construction differences from country to country. Nevertheless, strong comparative possibilities rest in the possibility of comparing regions within a single country. This can be illustrated more clearly by taking a closer look at the two major tourism destinations of Greece and Austria.

As the map of Greece (Figure 8.7) clearly demonstrates there are huge regional differences in terms of tourism intensity, with the Greek Islands at the high end while much of the mainland and north-eastern part of the Aegean are at the low end. The regional variation appears even more clearly when taking a closer look at Austria (Figure 8.8). The country is practically divided in two parts, with the western part of Austria being very tourism intensive (due to Alpine tourism), while the further east one goes tourism activities become less intensive.

The interpretation of TFIs – regardless of whether these are based on the population or the area of the destination – is crude. It does lead to general observations regarding tourism's intensity in terms of any given country's or region's population or area, as revealed in the above examples of Greece and Austria. However, it is necessary with further in-depth analysis to demonstrate the extent of variation of tourism's combined impacts on the economic, environmental, and socio-cultural fabrics of European destinations.

Figure 8.7: Population-based TFI for Greece, NUTS 3 level, 2003

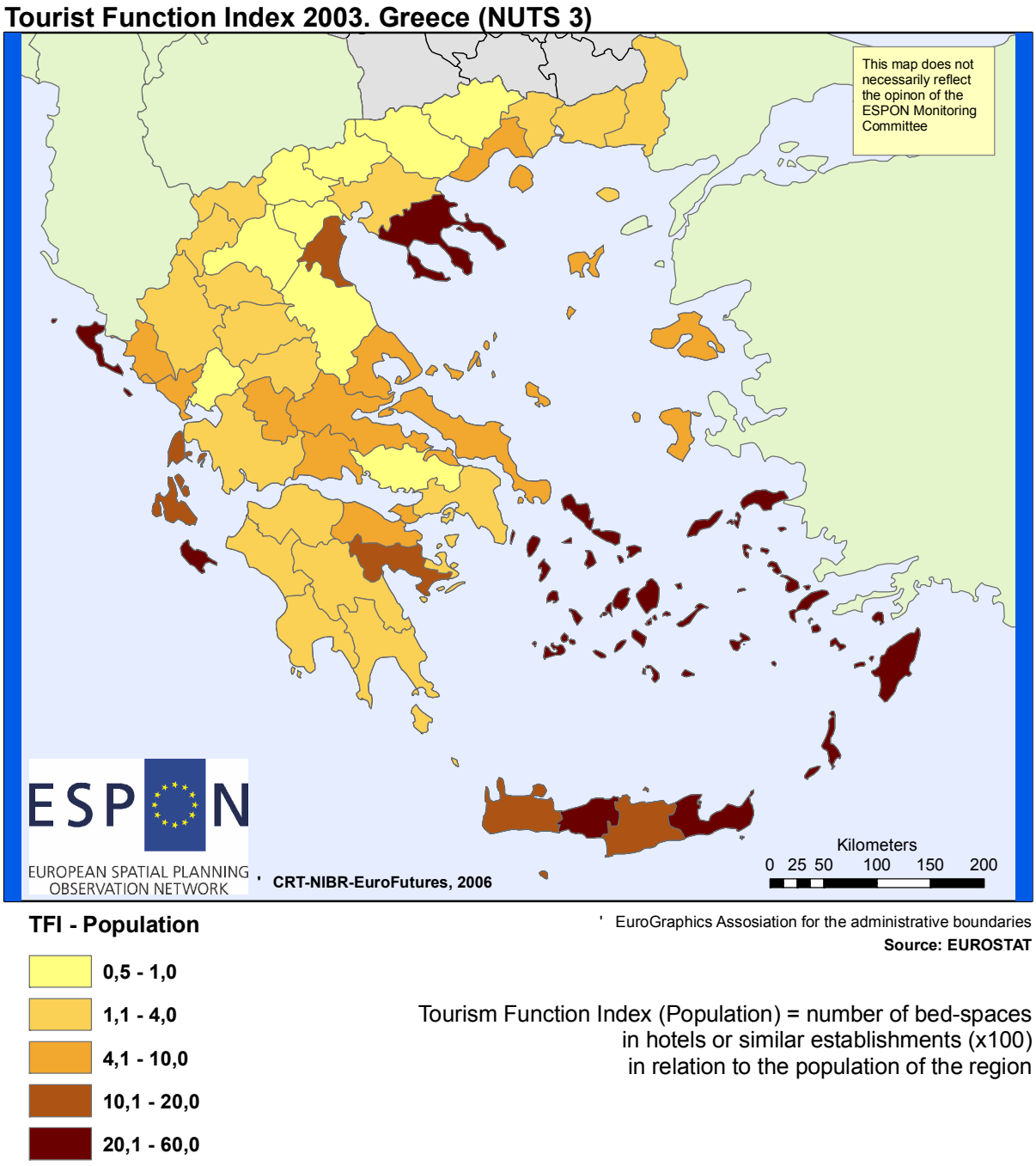
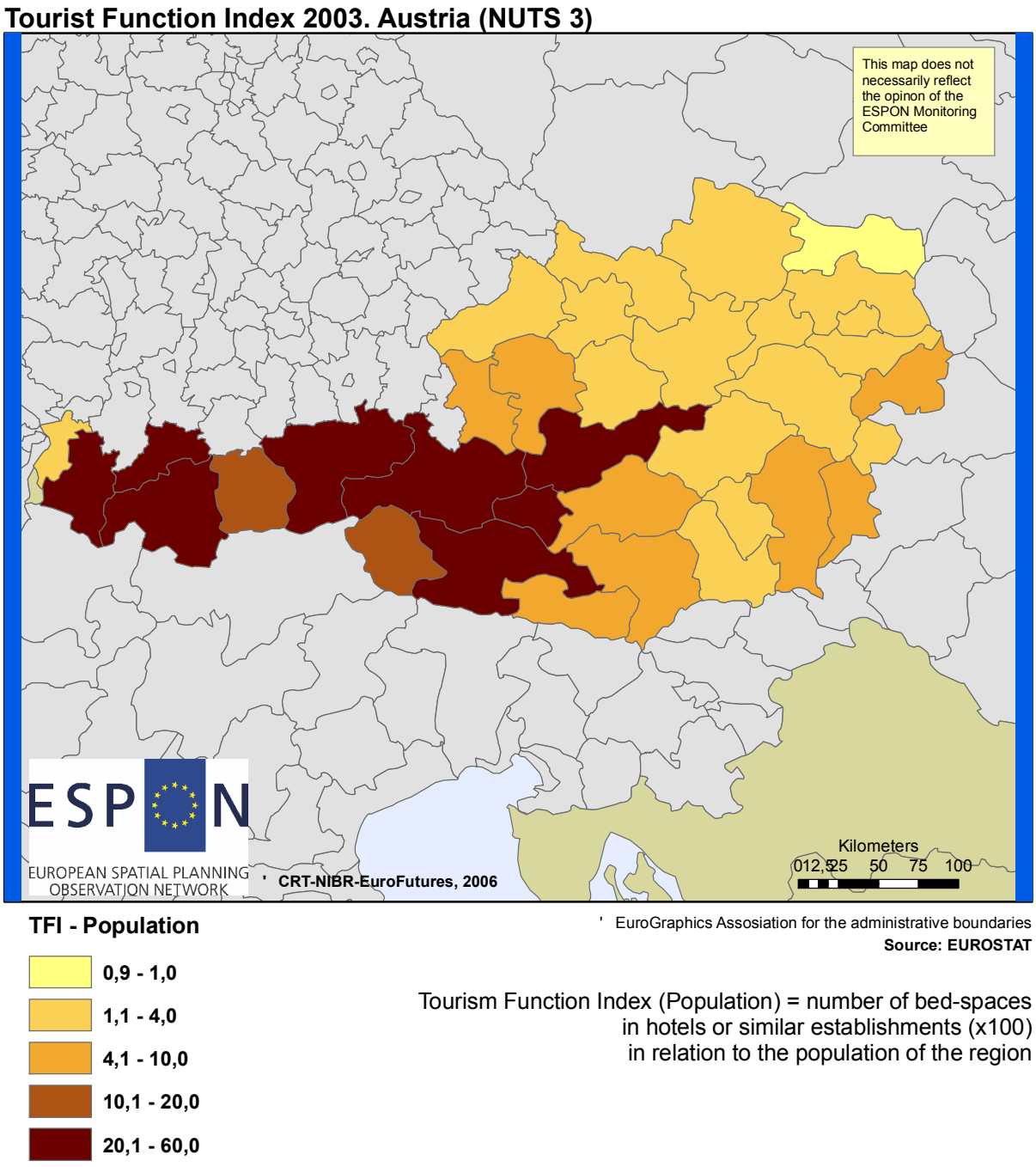


Figure 8.8: Population-based TFI for Austria, NUTS 3 level, 2003



8.3 The Tourism Penetration Index

A simple, yet useful, technique for recognizing the level of tourism development at any particular destination is one that combines economic, social, and environmental characteristics into a composite measure; such a measure is commonly termed a *tourism penetration index (TPI)* (McElroy and de Albuquerque 1998). The major advantage of the TPI is that it creates a single variable out of uni-dimensional measures of economic, socio-cultural, and environmental penetration and allows a number of destinations to be compared along a standardized continuum.

Here we have developed a TPI based on data for tourist expenditure per capita (an economic measure), density of tourists per 1000 population (a social measure), and the number of bed spaces or rooms per square kilometre (an environmental measure). The equation for calculating the index is described in Box 10.1.

To derive a composite TPI for all three variables, the average of each TPI is calculated as it relates to each respective measure (i.e., economic, social, and environmental respectively). For example, if in a certain destination the TPI for visitor spending per capita is .745, and the average daily visitors per 1000 population is .683, and the hotel rooms per square kilometre is 1.000 then the composite measure for that destination would amount to the average of all three measures (i.e., .809).

Box 8.1: Calculation of the TPI

The equation for calculating the TPI for each of the three variables (economic, social, and environmental) based on a database relating to a number of destinations involves the following:

$$\mathbf{TPI_{ij} = (X_{ij} - minX_i)/(maxX_i - minX_i)}$$

Where:

$\mathbf{TPI_{ij}}$ is the degree of tourism penetration for the jth island in respect to the ith variable.

$\mathbf{X_{ij}}$ is the value of the **ith** variable for destination **j** and $\mathbf{maxX_i}$ and $\mathbf{minX_i}$ stand for the maximum and minimum values of the **ith** variable of all destinations in the sample. The value of the TPI for each variable (economic, social, and environmental) can vary from 1.0 (maximum penetration) to 0 (minimum penetration).

We have developed a composite TPI for each of the countries in this study using basic data available from the UNWTO.

It is important to mention that such an exercise is fraught with difficulties. A major problem is that the UNWTO relies on each of its member countries to report data on various indicators and, thus, because of the inconsistencies in the manner data are collected and analyzed it is hard to make comparisons. For example, some countries interpret international arrivals as all arrivals at their frontier, while others report only international arrivals in all forms of tourist accommodation. Also while some countries distinguish between visitors and tourists others do not.

Then there is the problem that the UNWTO includes data for international tourism only. This means that in countries where domestic tourism is far more important that international tourism the significance of the sector will be seriously underestimated.

Because of the huge inconsistencies characterizing the UNWTO database certain assumptions had to be made to simplify the exercise. Essentially we chose to only concentrate on international arrivals in all accommodation establishments (for those countries that reported such data) and for countries where these data were not available we measured international frontier crossings. In the latter case, this may mean the number of international arrivals was overestimated. Another problem with only measuring international arrivals (as in the case of estimating the TFI) was that the domestic travel sector, which for some countries is significant, was disregarded. Generally speaking, in an effort to develop standardized data for comparative purposes we have run the risk of erroneously calculating some of indicators. At this stage, the reader needs to be aware of this and acknowledge that our calculations are merely for the purpose of indicating how the TPI concept works.

As a first step in this exercise, three tourism indicators were calculated for each of the 29 ESPON countries included in the study. These were: visitor spending per population; average daily visitors per 1000 population; and hotel rooms per square kilometre. These three indicators were standardized according to the equation shown in Box 8.1. The rankings for each of the three indicators are listed in Table 8.8.

Table 8.8: Rankings of Tourism Penetration Index (TPI)

Country	Visitor spending per population	Tourists/1000 population	Rooms/sqkm	TPI
Malta	0.25	1.00	1.00	**0.62**
Luxembourg	1.00	0.19	0.02	**0.55**
Cyprus	0.34	0.63	0.04	**0.34**
Austria	0.23	0.30	0.03	**0.20**
France	0.08	0.33	0.01	**0.13**
Switzerland	0.17	0.13	0.03	**0.13**
Spain	0.14	0.18	0.01	**0.12**
Greece	0.15	0.13	0.02	**0.11**
Denmark	0.13	0.16	0.01	**0.11**
Ireland	0.13	0.16	0.01	**0.11**
Belgium	0.11	0.05	0.02	**0.07**
Slovenia	0.10	0.07	0.01	**0.07**
Portugal	0.09	0.08	0.01	**0.07**
UK	0.06	0.13	0.02	**0.07**
Italy	0.07	0.08	0.03	**0.06**
Estonia	0.08	0.06	0.00	**0.06**
Netherlands	0.08	0.05	0.02	**0.06**
Norway	0.08	0.05	0.00	**0.05**
Sweden	0.08	0.03	0.00	**0.05**
Czech	0.05	0.06	0.01	**0.04**
Hungary	0.05	0.03	0.00	**0.03**
Finland	0.05	0.03	0.00	**0.03**
Bulgaria	0.03	0.04	0.01	**0.03**
Germany	0.04	0.01	0.02	**0.03**
Slovakia	0.02	0.03	0.01	**0.02**
Lithuania	0.02	0.01	0.00	**0.01**
Latvia	0.01	0.01	0.00	**0.01**
Poland	0.02	0.00	0.00	**0.01**
Romania	0.00	0.00	0.00	**0.00**

Note: The TPIs are weighted meaning that the visitor spending per capita (the economic measure) is assigned twice the weight of the other two measures (see McElroy and de Albuquerque 1998).

Unsurprisingly, the smallest countries in terms of population (and to a lesser extent area) featured the highest composite TPIs, whereas a number of eastern European countries (including Romania, Poland, Latvia, and Lithuania) had extremely low TPIs.

The problem with including the very small countries in terms of population and area (i.e., Malta, Cyprus, and Luxembourg) is that they function as outliers and depress the composite TPIs for all other countries to the point where the interpretation of the data is not very meaningful.

To be sure, Malta and Cyprus, which respectively attract approximately 1.1 and 2.3 million overnight tourists, end up with high TPIs because they are small in both size and population. Considering the high visibility of tourism in these destinations' economic and physical landscape the rankings are unremarkable.

Nevertheless, because the TPIs of these countries plus Luxembourg are so high compared to the other countries in the sample, it was decided to run a second TPI analysis by omitting these outliers (see Table 8.9).

Table 8.9: Rankings of TPI (omitting Cyprus, Luxembourg and Malta)

Country	Visitor Spending per population	Tourists/1000 population	Rooms/sqkm	TPI
Austria	1.00	0.89	0.68	**0.89**
Switzerland	0.74	0.39	0.67	**0.64**
Greece	0.64	0.39	0.52	**0.55**
Spain	0.59	0.54	0.28	**0.51**
France	0.35	1.00	0.20	**0.48**
UK	0.24	0.40	1.00	**0.47**
Denmark	0.56	0.48	0.18	**0.44**
Ireland	0.57	0.47	0.16	**0.44**
Italy	0.32	0.25	0.66	**0.39**
Belgium	0.47	0.15	0.39	**0.37**
Netherlands	0.33	0.15	0.40	**0.31**
Portugal*	0.39	0.23	0.21	**0.31**
Slovenia	0.43	0.21	0.13	**0.30**
Estonia	0.36	0.17	0.04	**0.23**
Germany	0.17	0.04	0.48	**0.22**
Norway	0.35	0.16	0.01	**0.22**
Czech	0.21	0.19	0.23	**0.21**
Sweden	0.36	0.10	0.02	**0.21**
Bulgaria	0.15	0.12	0.24	**0.16**
Hungary	0.21	0.10	0.11	**0.16**
Finland	0.20	0.08	0.00	**0.12**
Slovakia	0.08	0.08	0.12	**0.09**
Lithuania	0.10	0.03	0.00	**0.06**
Poland	0.07	0.01	0.02	**0.04**
Latvia	0.05	0.04	0.00	**0.04**
Romania	0.00	0.00	0.06	**0.01**

Note: The TPIs are weighted.

By leaving out the three smallest countries in terms of population, immediately the TPIs for all other countries become more reasonably distributed. At the one end of the spectrum Austria and Switzerland have high composite TPIs (above .7) while on the other end Lithuania, Poland, Latvia, and Romania have measures below 0.1.

These TPIs are not unexpected. Austria has a long history as a mature year-round tourist destination. It is a popular winter tourist destination, but it also has well established year-round tourism in many of its urban areas. It attracts almost 20 million international tourists per year and boasts 290,491 rooms in accommodation establishments. Also, because of the large number of visitors

relative to its population the spending per capita is the highest in this sample. Switzerland is similar to Austria in this respect.

All in all, the eight countries with the highest TPIs in the sample have a composite index of 0.4 or higher. In addition to the three destinations already mentioned, they include Greece (TPI=0.55), Spain (TPI=0.51), France (TPI=0.48), UK (TPI=0.47), Denmark and Ireland (both with a TPI=0.44). These countries, especially Greece, Spain and France, have a long reputation as important destinations on the worldwide scene (France and Spain are among the largest destinations in terms of international tourist arrivals) and exhibit a mature tourism product, especially in coastal areas but also in their main urban areas.

By stark contrast a number of eastern European countries demonstrate an extremely low composite TPI. Romania, for example, attracts fewer international tourist arrivals than Cyprus despite the fact that it is a sizeable country with a population over 20 million. The receipts per capita are especially low for this country. This situation indicates that on the international tourist scene some of the Eastern European countries are at their early stage of development as international tourist destinations, even though places like Bulgaria may actually have a sizeable domestic tourist industry.

The low TPIs for the Sweden, Finland, and Norway compared to other western European countries have more to do with the fact that these countries are quite large in terms of area and yet they attract about the same number of tourists as Denmark (TPI= 0.46).

Based on the composite TPIs that appear in Table 10.9 it is possible to develop a 4-tier typology of tourist destinations. Countries with TPIs from 0.5-1.0 can be ranked as mature destinations; those with a TPI of .25-0.49 are ranked as medium-high penetrated destinations; those with TPIs of 0.1-0.24 are medium-low penetrated destinations; and those with an index below 0.1 are destinations that have not yet been established on the international scene. While this technique of separating countries into clusters according to their TPI may appear arbitrary, it could be argued that it serves as a rough first step for assigning individual countries to classes of tourism development (Table 8.10).

Table 8.10: Typology of Tourism Development based on classes of TPI

Mature Destinations TPI = 0.5 – 1.0	Medium-high penetrated TPI = 0.25-0.49	Medium-low penetrated TPI = 0.1 – 0.24	Minimally-penetrated destinations TPI < 0.1
Austria	Denmark	Estonia	Lithuania
Switzerland	Italy	Czech	Poland
Greece	Ireland	Norway	Latvia
Spain	Belgium	Sweden	Romania
France	UK	Bulgaria	
	Netherlands	Hungary	
	Portugal	Finland	
	Slovenia	Slovakia	
	Germany		

Even though Cyprus, Luxembourg, and Malta were omitted as outliers from this exercise they can easily be classified as belonging to the mature destinations, as illustrated in Figure 8.9.

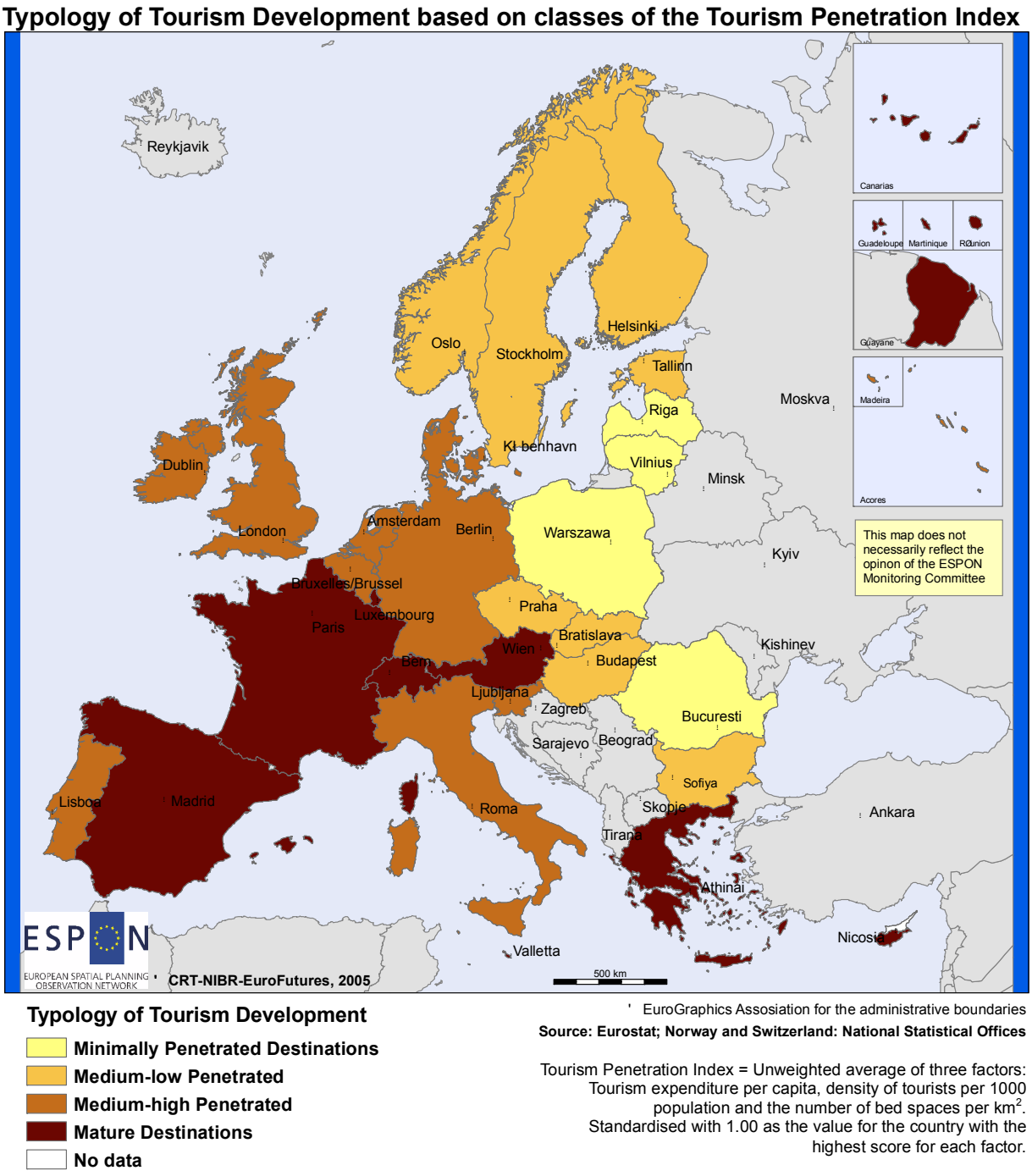
This simple exercise indicates that based on their international tourist arrivals, countries within Europe present variations in terms of the tourism intensity they experience. The creation of a basic typology based on 4 classes of destinations serves as a useful first step for developing targeted tourism strategies for countries according to their level of tourism development.

However, just in the case of the tourism-function indices (TFIs), the use of TPIs at the national level presents problems stemming from the aggregation of arrivals, which inevitably means that spatial variation in terms of tourism's intensity within each country is not accounted for. Moreover, we have already noted that in small countries with high ratios of tourists to local inhabitants, the penetration indices tend to be exceedingly high while in a very large country where tourism may be well developed in certain areas (e.g., cities or coastal regions) the industry's importance on the national scale may be under-estimated.

Also, because of the suspect nature of the available data it has been impossible to take into account domestic tourism, which within many countries constitutes a sizeable portion of the industry.

Ideally, it would have been far more useful to estimate TPIs for sub-national regions. Indeed, one approach would be to compare tourist regions (for example coastal areas) from country to country. This would allow us to develop a typology of these coastal areas based on their level of tourism penetration. Another option is to develop TPIs for urban regions in order to compare to what extent these are dependent on tourism (see previous section on TFI).

Figure 8.9: Typology for tourism penetration, countries



8.4 Conclusions

We have in this chapter has demonstrated different ways of analysing and visualising the spatial aspects of tourism at the various NUTS levels. This has been done through a simple index, the Tourism Function Index, and a composite index, the Tourism Penetration Index. These have provided us with snapshots of tourism's presence and impacts in the ESPON countries. However, these snapshots are only as good as the data they have been constructed from, and in the process of these exercises, a number of concerns has arisen.

First of all, and most seriously, it can be noted that regional data on tourism is very scarce. We have not been able to construct the Tourism Penetration Index beyond the national level, nor has it been possible to work with data for employment in tourism-intensive industries at the regional level for all ESPON countries.

Eurostat does, indeed, have sub-national data for accommodation. These were used in the Tourism Function Index analyses for NUTS 0, II and III; however, these data have certain limitations regarding comparability. The data on accommodation that were used for the TFI were taken from the category "Hotels and similar establishments" which contains data on hotels, bed-rooms and bed-spaces, and in our case we used the latter to calculate the TFI.

However, it is necessary to be cautious regarding the way in which these numbers have been calculated. This can be illustrated by analysing "Hotels" at NUTS III level. The data allow us to calculate the average size of hotels for the NUTS III regions, as seen in Table 8.11 and Table 8.12.

Concerning the regions with the largest hotels (in terms of average hotel rooms) these are, not surprisingly, found in major cities and in major mass tourism destinations, like the Canary Islands. At the lower end we find many regions in the UK and Germany, which obviously are dominated by small establishments. The differences in definitions and registration requirements applied do play a role in our findings which may be deemed to be misleading. In a country like Denmark, only hotel establishments with at least 40 rooms are included in the definition of "registered accommodation" and included in the national accommodation statistics, while in the UK all establishments are registered, including Bed & Breakfast establishments. It is obvious that these differences reduce the value of international comparisons.

More homogenous definitions are therefore necessary in order to make meaningful international comparisons at sub-national level. Since in the context of spatial planning we will have to use the official national statistics available, the most promising way forward is probably to calculate the impacts of definitional differences and on that basis to establish a new data set that is more comparable. This will be one of the suggestions for an ESPON 2013 project.

Table 8.11: High 25 in average hotel size, NUTS 3 regions, 2003

ES701	Las Palmas	376.2
BG231	Burgas	287.5
ES702	Santa Cruz De Tenerife	275.6
BG132	Dobrich	274.3
PL127	Miasto Warszawa	270.0
NO011	Oslo	262.6
DK001	København og Frederiksberg Kommuner	255.8
ES530	Illes Balears	231.0
PT150	Algarve	222.1
MT001	Malta	217.3
FR106	Seine-Saint-Denis	208.0
NO012	Akershus	204.7
ITF52	Matera	203.9
DK002	Københavns amt	198.6
BG131	Varna	190.6
FR108	Val-d'Oise	189.8
FI181	Uusimaa	187.5
BG212	Sofia	186.2
BE100	Arr. de Bruxelles-Capitale/Arr. van Brussel-Hoofdstad	181.2
HU101	Budapest	174.8
BG221	Plovdiv	174.2
ES514	Tarragona	173.8
ITG18	Ragusa	172.9
FR102	Seine-et-Marne	171.1
SE010	Stockholms län	169.1

Table 8.12: Low 25 in average hotel size, NUTS 3 regions, 2003

UKM23	East Lothian and Midlothian	16.4
UKM32	Dumfries and Galloway	16.0
UKN05	West and South of Northern Ireland	15.6
LT007	Taurages (Apskritis)	15.3
UKH14	Suffolk	14.3
UKK22	Dorset CC	14.3
UKL12	Gwynedd	14.1
UKM24	The Scottish Borders	13.7
UKL11	Isle of Anglesey	13.3
UKD11	West Cumbria	13.2
UKG11	Herefordshire	12.9
UKD12	East Cumbria	12.1
UKM45	Orkney Islands	11.8
UKF13	South and West Derbyshire	11.7
UKL24	Powys	11.6
UKG22	Shropshire CC	11.5
UKK23	Somerset	10.9
UKL14	South West Wales	10.8
UKC21	Northumberland	10.8
UKM44	Comhairle Nan Eilan (Western Isles)	10.6
UKK15	Wiltshire CC	9.1

9 Examples of good practice

We have seen that the opportunities for performing studies at the sub-national level for the whole or Europe are very limited. But there are examples of initiatives that can move beyond what we currently are able to do for the whole of Europe. Three such examples will be presented here. The first is Denmark, where the Tourism Satellite Account approach is well advanced. The second example is Spain, where border surveys are regularly carried out and, therefore, there is a good knowledge base regarding the characteristics of foreign visitors. The third example is the TourMis database, an initiative for collecting data for a number of urban destinations in the western parts of Europe.

9.1 Tourism Satellite Accounts - case Denmark

9.1.1 Developing national and regional Tourism Satellite Accounts

Since the mid 1990s Denmark has developed and been using a model for measuring tourism trends and the economic and employment impacts of tourism, the so called TØBBE model, based on collected data concerning basic tourist characteristics and expenditures. The model has gradually been adjusted to be in compliance with the Tourism Satellite Accounts. Departing from this model, Denmark in the recent years has been among the pioneering countries to attempt developing regional TSAs.

Principles for developing regional TSA

The development of Danish Regional TSAs is based on the three principles outlined by the OECD and WTO for the tourism satellite accounts:

- *Industrial sectors should be consistent with the national account*. The selection of TSA industrial sectors should be based on recognised national economic sector accounts and Standard International Classification of Tourism Activities (SICTA). In the case of the Danish national accounts, the industrial sector is classified into 132 standard sectors. However, they are built up from about 800 detailed industrial branches.
- *Tourism industries should be comparable with other industries.* Once the tourism industries are identified, one should be able to compare them with other conventional industries. For example, one should be able to compare labour productivity between a tourism industry and agricultural industry.

- *Regional data should be balanced between the supply and demand at commodity level.* Regional TSA will be based on both regional production account and national make and use tables. The national make and use tables are transformed to regional make and use tables by using the regional production accounts or the regional primary income as the distribution keys.

The principle of making regional TSA is to make a tourism supply and demand balance at the commodity level. This is called the "top-down method", as it is based on the national statistical data. Due to the fact that tourism satellite account is a special account and a large amount of tourism information does not exist in the national accounts, tourism survey data do therefore supplement the national accounts data. This is called the "bottom-up method". The tourism demand estimation should also be consistent with the national accounts.

The key words for developing regional TSA are: regional statistical data with reliable statistical sources, comparable with other industries and consistent with the national accounts. Besides, regional tourism statistics should be produced at a regular basis and should be presented within macroeconomic frameworks.

Procedures in developing Danish regional TSA

The Danish R-TSA is developed in the following nine steps:

1. *Identifying the tourism-specific products (TSP).* A set of commodities and services within the national make-use tables is identified as tourism-specific products. The national make-use tables in Denmark have approximately as many as 2,800 commodities and services. About 32 commodities and services are identified as the tourism-specific products according to the TSA documents from Eurostat/OECD/WTO/UN.
2. *Identifying the tourism branches.* Regional primary income and employment data with detailed branch break-down (by about 800 branches) can be obtained from Statistics Denmark. Within these detailed industrial branches we identify about 30 branches as tourism-related industries. This detailed information serves as a key to distribute the standard industries into more detailed TSA industries. The tourism supply shares within each standard industry are obtained. The selection of detailed tourism industries is the same as the classification of TSP products.
3. *Making a balance between supply and demand by the TSP products.* In the national accounts, make-use tables are balanced at each commodity level. This means that the total supply equals the total demand by each commodity. All the TSP products also obtain a balance between supply and demand.

4. *Regional tourism data (survey data) are aggregated into national tourism consumption.* The Danish TØBBE data are the regularly surveyed data, part of which is from Statistics Denmark while another part results from interviews by the Denmark National Tourism Organisation. The tourism survey data are an important data source for compiling the regional TSA, because the national use tables provide only private consumption as the national total. There is neither information of regional private consumption, nor information of regional tourism consumption. The aggregated tourism demand by consumption groups is compared with both the tourism supply and demand from the national accounts.
5. *Estimation of the total tourism demand at national level by the TSP products.* The total national tourism demand at each TSP is estimated by both national make-use tables and tourism demand data. The methodology is called the "mixed method" which is decided by the availability of data.
6. *Regionalising the national make-use tables.* Regionalising the national make-use tables is implemented through the regional production accounts. Danish regional production accounts contain data for regional production value, regional intermediate consumption, gross domestic product at factor costs, and production taxes less subsidies on production, compensation to employees, gross operating surplus and number of employment. From one data source, the national make table contains production data that are broken down by sector and product; from another data source (the regional production accounts), the production data are broken down by sector and region. Combining two data source, regional make-use tables can be compiled.
7. *Making a regional tourism satellite account (R-TSA*). With the help of the detailed regional industrial data and the regional tourism data, the national TSA is distributed into the regional TSA. It must be ensured during this procedure that supply and demand at the regional level are balanced at all commodity levels.
8. All the regional data including regional tourism statistics are *put into the interregional macroeconomic model* (in the Danish case, it is LINE model).
9. Applying the interregional model and calculating the tourism consequences in the regional economies.

Indicators and output from the regional TSA

The main indicators for the regional TSA are, from the supply side:

- Regional supply share
- Regional tourism output

- Regional tourism GVA
- Regional tourism employment

From the demand side:

- Regional tourism demand: it is broken down by tourist types, nationalities and overnight forms.

From both supply and demand side:

- Tourism ratio on supply at each product level
- Tourism value added as percentage of industry total
- Tourism employment as percentage of industry total

Main outputs from the regional TSA are

- Regional inbound tourism consumption by TSP and non-TSP: same-day and overnight tourism consumption
- Regional domestic private tourism consumption by TSP and non-TSP: same-day and overnight tourism consumption
- Regional domestic business tourism consumption by TSP and non-TSP: same-day and overnight tourism consumption
- Regional outbound tourism consumption by TSP and non-TSP: same-day and overnight tourism consumption
- Internal regional tourism consumption
- Regional tourism production accounts: tourism industries and tourism products
- Regional tourism supply and demand, tourism ratios on supply
- Regional tourism employment

Measuring regional economic impacts

The economic impacts of tourism can be measured in relation to either income change or employment change or both. Correspondingly, both income and employment multipliers can be calculated. It is also important to distinguish between impacts in terms of absolute magnitude and impacts in terms of magnitudes relative to the size of the region. The sources of variation in impact are summarised in Table 9.1.

Table 9.1: Factors determining employment change in tourist activity

	Total effects		Direct effects					Derived effects		
	Absolute impacts	Relative impacts	Absolute impacts	Relative impacts	Daily consumption					
	Volume (numbers)	Tourist intensity1)	Volume (numbers)	Tourist intensity 1)	Levels 2)	Com-position 3)	Labour content 4)	Trade	Commuting	Shopping
Urban area	High	Low	High	Low	High	High	Low	High	Low	High
Rural area	Low	Neutral	Low	Neutral	Low	Low	High	Low	Low	Low
Peripheral areas	Low	High	Low	High	Low	Low	High	Low	Variable	High

1) Number of tourists/population
2) Relative daily consumption by type of overnight stays by region
3) Composition of tourists' consumption by type of overnight stays by region
4) Labour content is an employment/gross output ratio

On the horizontal axis direct, derived and total effects are identified. On the vertical axis three types of regions are shown. The total effects are a result of the direct and derived effects. In general, the absolute impacts of a change in tourist activity are likely to be greatest in urban areas, where the volume of tourists is already high because of the size of the local economy. The reverse is true for rural and peripheral regions.

However, in terms of relative impacts on the regional economy changes in tourist activity will affect rural and peripheral areas more. The magnitude of the relative impacts depends upon the relative magnitude of the direct and the derived effects. The magnitude of the direct effects can be decomposed into four factors: Tourist intensity, level of daily consumption for type of overnight stay, composition of tourist activity by type of overnight stay and the employment content of tourist related activity. In relative terms, in urban areas tourist intensity is low, whilst consumption by type of overnight stay is high (for example, daily consumption by hotel guests is higher in urban areas) and the composition of tourist activity by type of overnight stay is biased (a relatively large share of high expenditure overnight stays, such as hotels). This composition effect results in a higher employment content associated with any change in tourism-related economic activity, despite higher wage levels in urban areas.

The magnitude of the derived effects depends fundamentally on expenditure/income leakages from the regional economy. The first type of leakage is related to trade, which in turn can be divided into two types of commodity: immobile commodities (services), which are not subject to leakage and the mobile commodities (for example food), which are subject to leakage. The level of intraregional supply of mobile commodities determines the magni-

tude of the derived effects. Urban regions have lower levels of leakage as they have bigger and more diversified economies.

The second type of leakage is associated with commuting. If the labour employed in tourist-related activities and linked industries resides in the same region leakages will be small. If there is substantial inward commuting leakages will be larger. In urban areas leakages will be small, because the level of interregional inward commuting is lower. In peripheral areas the level of leakages depends upon degree of inward commuting and level of employment of seasonal labour, whose primary residence is another region.

The third type of leakage is related to shopping for household private consumption and for intermediate consumption in production. For urban regions both types of shopping will in relative terms be more intraregional for reasons of size and diversity of supply associated with the retail and wholesale sectors. In rural regions leakages are higher as interregional shopping is more general. In peripheral regions leakages are high because of remoteness and isolation.

9.1.2 National tourism trends

Based on the TØBBE model, the following features on tourism trends in Denmark for 2004 can be highlighted:

Bednights

- There were 42.2 million bednights in Denmark for 2004, which was 1,2 million fewer (-2.9 pct.) than during the previous year.
- The number of hotel bednights increased while all other types of accommodation declined.
- The number of domestic bednights increased, making the increase over the last decade close to 20%.
- International bednights fell by 6.1 percent, but still makes up 53% of all bednights.
- The number of German bednights in Denmark fell by 10.2 percent, but they still make up 62 percent of all international bednights. Thus, the decline in German tourists had a significant impact on tourism in general.
- Northern Jutland was still the largest tourist destination measured in bednights (6.6 million).
- 53 percent of the bednights occurred in the 3rd quarter and July is the busiest month with ¼ of all bednights in 2004.

Spending

- The turnover from tourism was estimated to 6.3 billion € in 2004, with 60% coming from foreign tourists.
- The neighbouring markets Germany, Sweden and Norway generated 2/3 of the turnover from foreign tourism.
- The turnover from overnight staying tourists amounted to 5.1 billion €, whereof holiday tourism amounted to 2.5 billion € and MICE to 1.2 billion €.
- The major part of tourist spending went into accommodation and restaurants (47 percent).
- The daily average tourist spending was about 61€. MICE-tourists and Japanese tourists were responsible for the highest spending per capita.

9.1.3 Regional impacts of tourism

Tourism revenue in Denmark is approximately 6-7 billion € per year, which accounts for about 2% of the national gross output and 4% of the GDP at factor cost. Tourism creates about 70,000 jobs in Denmark, accounting for about 2.5% of total employment. About 47% of the tourism revenue is generated by domestic tourism (including domestic business travel consumption). International overnight tourism is responsible for approximately 37.4% of the total tourism revenue, whilst the rest (15.6%) is created by the international same-day visitors (i.e. border shopping).

Tourism revenue in Denmark covers various different forms of accommodation, including hotels for leisure, hotels for business and conference centres, camping sites, holiday centres, summer cottages, and visiting families and friends.

Of the 14 Danish regions, the Copenhagen region, as the capital and also the economic and cultural centre, accounts for 27% of total tourism revenue. Two peripheral regions such as Sønderjylland and Nordjylland have also large shares of tourism revenue mainly due to foreign same-day visitors and leisure tourists using summer cottages. Aarhus and Fyn regions, where large cities are located, have also relatively large shares of the total tourism revenue.

The relative importance of tourism is however different. A large region attracts a larger number of tourists and engages more employment in tourist service sectors than a small region does, but the relative impact on a regional economy may, in fact, be larger in some rural and peripheral regions.

The relative impact on the regional economy is shown in the two last columns in Table 9.2: tourism demand as a share of total regional demand and tourism generated employment as a share of regional employment. Tourism is most important for peripheral regions, such as Bornholm, Sønderjylland, Nordjylland

and Ribe (where Legoland is located). The share of employees in tourism in % of total regional employment is illustrated in Figure 9.1.

Table 9.2: Factors explaining the total effect of tourism impacts

	Regional employment [2] (1000)	Tourism generated employment (1000)	Tourism demand as a share of total regional demand (%)	Tourism generated employment as a share of regional employment (%)
Copenhagen[1] *	422.3	12.7	2.81	3.01
County of Copenhagen[1]*	366.1			
Frederiksborg*	156.2	4.0	1.44	2.55
Roskilde	94.1	1.6	0.87	1.70
Vestsjælland	127.7	2.7	1.37	2.13
Storstrøm	106.7	3.3	1.71	3.13
Bornholm	19.2	1.2	7.07	6.45
Fyn *	222.0	5.3	1.30	2.40
Sønderjylland	124.1	4.2	7.01	3.41
Ribe	116.8	3.9	2.26	3.38
Vejle	186.2	4.4	1.35	2.35
Ringkøbing	152.9	3.8	1.47	2.48
Århus *	325.1	6.9	1.34	2.13
Viborg	123.0	2.3	0.97	1.89
Nordjylland *	245.0	8.6	2.75	3.52
Copenhagen Region[1)]	788.4	18.3	2.60	2.32
Denmark	2787.4	70.7	1.72	2.54

Note: * identifies the urban region where there is at least one big city centre.

1 Here Copenhagen is the inner city independent administrative unit, (the Municipalities of Copenhagen and Frederiksberg) whilst the County of Copenhagen is the area surrounding Copenhagen city. These two areas constitute Copenhagen Region. The tourism survey data do not distinguish two Copenhagen regions; all the tourism revenue and number of nights of tourists are simply put into the Municipalities of Copenhagen.

2 Regional employment at place of work by all sectors. The numbers are full-time equivalent jobs.

Figure 9.1: Share of employees in tourism-related activities Danish regions. NUTS 3, 2004

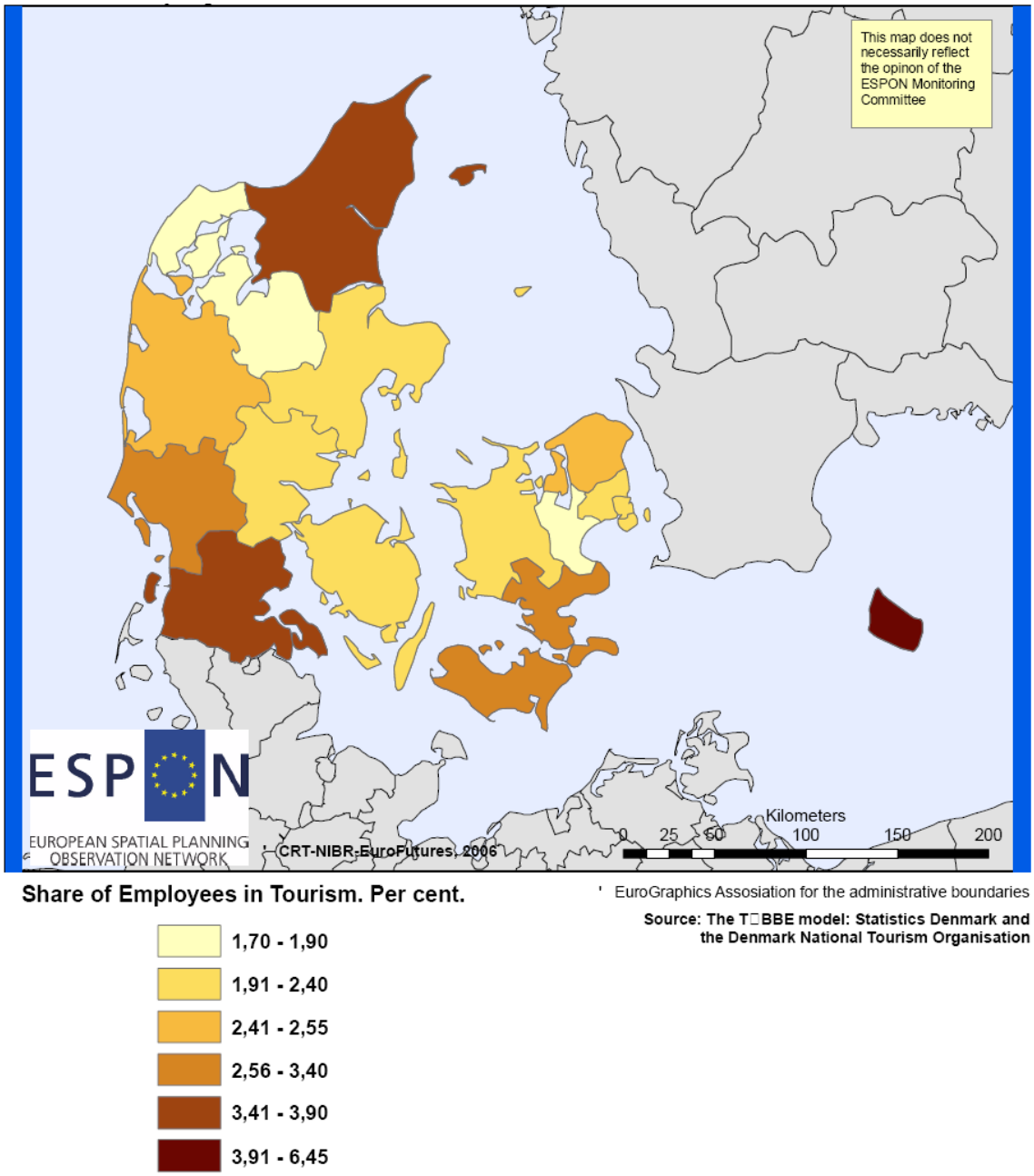


Table 9.3 shows the factors that explain the direct effect on tourism multipliers. The numbers of tourist nights shown in the second column give a geographical distribution of tourists in Danish regions. Tourists, including business tourists, mainly stay at hotels in the big cities, while the rural and peripheral regions attract relatively more leisure tourists who tend to stay at summer cottages and camping sites. Tourism intensity represented by the ratio of tourist nights to the regional population is shown in the third column. It reveals the relative importance of tourism in peripheral regions, such as in case of Bornholm, whose tourist to population ratio is 62.5.

Table 9.3: Factors explaining the direct effects of tourism impacts

	Number of tourist nights (1000) [1]	Tourist nights/ regional population [2]	Share of tourism revenue from hotels in total overnight tourism[3]	Indices of daily spending by holiday hotel guests[4]	Indices of daily spending by business hotel guest [5]	Labour content [6]
Copenhagen city *	10,162	17.2	75.4	1.80	1.46	1.92
County of Copenhagen*	3,639	5.9				2.12
Frederiksborg	5,971	16.1	24.3	1.29	0.82	2.53
Roskilde	1,590	6.8	33.5	0.77	1.24	2.57
Vestsjælland	6,396	21.4	13.9	1.02	0.97	2.84
Storstrøm	6,189	23.8	16.7	0.65	0.71	2.93
Bornholm	2,761	62.5	34.4	0.96	1.02	2.38
Fyn *	7,310	15.5	38.0	1.03	1.18	3.14
Sønderjylland	12,072	47.7	18.3	0.81	0.79	2.81
Ribe	7,320	32.6	18.6	1.01	0.81	2.98
Vejle	4,264	12.1	33.7	0.83	1.13	3.10
Ringkøbing	7,109	25.9	12.2	0.77	0.79	2.53
Århus *	9,575	14.9	33.0	1.05	1.21	2.72
Viborg	3,771	16.1	24.0	1.02	0.83	2.70
Nordjylland *	14,405	29.1	30.7	0.97	1.16	2.97
Copenhagen Region	13,800	20.2	67.7			1.97
Denmark	102,533	19.1	36.3			2.60

Note: * identifies the urban region where there is at least one big city centre.
Tourism data is missing for County of Copenhagen, see note 1 under Table 2.

1 Number of tourist nights includes all forms of tourist accommodations; it also includes foreign same-day trippers.
2 The ratio is calculated by the tourist nights in each region divided by the regional population.
3 This share is calculated from the tourism revenue from four forms of hotel tourists in the region divided by the total tourism revenue in the region from overnight tourists.
4 This index is calculated by the daily spending by hotel holiday guests in the region divided by the same category of the national average.
5 This index is calculated by the daily spending by hotel business guests in the region divided by the same category of the national average.
6 Labour content in the hotel sector is calculated by number of employment at hotel sector in the region divided by the regional gross output (in millions of DKK) in the hotel sector. It represents employment requirements for producing a million DKK of output. It is the inverse of labour productivity.

By examining the composition and level of tourists' daily consumption, it is helpful to understand differences by types of tourists and their daily spending on the region. Column four in Table 9.3 presents regional tourism revenue from hotel tourists as a share of the total tourism revenue from overnight tourists. It shows that the urban regions have higher shares of hotel tourists than the rural regions, with the exception of Bornholm (34.4%). Bornholm as a peripheral and island region has also a larger share of business and leisure tourist stays overnight at hotels. The last two columns show the indices of daily spending by

hotel holiday guests and business guests, respectively. These indices are calculated from the average daily consumption by the hotel guests in the region divided by the national average consumption of the same category. These indices confirm, as explained in the first section, that tourists (both leisure and business tourists) spend more in the urban regions than in the rural regions, which is why the direct effect is relatively greater in the urban regions.

The last column shows the labour content in production in the hotel sector. A lower labour content normally reflects a higher capital-labour ratio. This is the inverse of productivity, i.e. regional employment in the hotel sector divided by output (in million DKK) in the hotel sector. This shows the number of jobs produced by one million DKK output. When more jobs are derived, labour productivity is lower, and vice versa. Labour content in the rural regions is relatively higher than in Copenhagen Region, which means that any increase in direct expenditure at hotels generates more jobs in rural areas as compared with urban areas.

The tourism multiplier is defined as the ratio of the total tourism impact to the direct tourism impact. The total tourism impact is constituted by the direct and derived effects where the derived effects determine the magnitude of tourism multipliers. The factors explaining the derived effect are shown in Table 9.4.

The second column of the table presents the tourism employment multipliers by region. It is followed by the three columns showing the regional commuting quotients, shopping quotients and trade quotients.

Commuting quotients are calculated by taking the employed persons who both live and work in the region divided by the total employment in the region. When a commuting quotient is close to one, it means that commuting leakage is small. In other words, the employees mainly come from the region itself. When a commuting quotient is much lower than one, the leakage is large. From the table it shows that the commuting quotients are quite different. The urban regions, except Copenhagen, have higher commuting quotients than rural regions, while rural regions, except Bornholm, have lower commuting quotients. Bornholm, as an island region, has fewer possibilities to commute to other regions, while the Copenhagen Region, on the other hand, provides greater opportunities for commuters to get jobs across regions because of better transport facilities.

The shopping quotient is calculated by taking the household private consumption demanded by the residents in the region divided by the total local private consumption in the region. When a shopping quotient is close to one, it means that the shopping leakage is small. In other words, residents shop locally, which will give a higher derived effect on the region and the reverse is true. Apart from the Copenhagen Region, the table shows that the shopping leakage is small in most regions.

The trade quotient is calculated from trade demand met locally, divided by the total trade demand in the region. When a trade quotient is low it means that local firms demand less from the region itself; instead they demand more from other regions and foreign imports, so that the trade leakage is larger, and the reverse is true. The table shows that all the rural and peripheral regions have large trade leakages, proving that they depend more on other regions than urban regions.

Table 9.4: Factors explaining the derived effects in regional tourism multipliers

Regions at country level	Tourism employment multiplier [1]	Commuting quotient [2]	Shopping quotient [3]	Trade quotient [4]
Copenhagen city	1.33	0.48	0.90	0.78
County of Copenhagen		0.53	0.86	0.65
Frederiksborg	1.34	0.79	0.91	0.76
Roskilde	1.50	0.69	0.89	0.79
Vestsjælland	1.42	0.89	0.94	0.66
Storstrøm	1.36	0.92	0.96	0.73
Bornholm	1.24	0.97	0.99	0.79
Fyn	1.41	0.96	0.98	0.72
Sønderjylland	1.34	0.94	0.95	0.68
Ribe	1.34	0.88	0.96	0.66
Vejle	1.48	0.86	0.95	0.69
Ringkøbing	1.44	0.91	0.98	0.63
Århus	1.50	0.93	0.97	0.75
Viborg	1.52	0.89	0.95	0.65
Nordjylland	1.31	0.96	0.99	0.74
Copenhagen Region	1.44	0.77	0.97	0.78
Denmark	1.41	0.81	0.94	0.72

Note:

Tourism multiplier is missing for County of Copenhagen, see note 1 under Table 2.

1 Tourism employment multipliers, calculated from the total employment generation divided by the direct employment generated by tourism.

2 The commuting quotient is calculated from the employed persons who both live and work in the region divided by total employment in the region.

3 The shopping quotient is calculated from household private consumption purchased by the residents in the region divided by the total household private consumption in the region.

4 The trade quotient is calculated from the shares of total interregional trade demand met by the local production in the region.

The table above shows the relationships between tourism employment multipliers and these three quotients. Copenhagen is a major economic centre and has a large share of tourism revenue. It might be expected to have a relatively large tourism multiplier; however, the multiplier for Copenhagen city is 1.34, lower than the national average (1.41). This can be explained by the lower commuting and shopping quotients in Copenhagen. More than half of the employment in Copenhagen is in-commuters, and only 83% of local private consumption has

been shopped for in Copenhagen. Therefore, the commuting and shopping leakages are larger in Copenhagen city. On the other hand, the trade quotient of Copenhagen is higher than in all other regions, showing that Copenhagen is also a trade centre.

The tourism multiplier (1.24) of the island of Bornholm is relatively low, as expected. The size of economy on Bornholm is smaller than other regions and it is a relatively isolated island – a peripheral region in Denmark. On the other hand, Bornholm has relatively high commuting and shopping quotients, so these kinds of leakages are smaller, but the trade leakage is relatively large on Bornholm.

The Danish R-TSA clearly illustrates the importance of domestic and one-day tourists, which in the context of spatial planning are equally interesting as foreign guest international and overnight stays. This example does also show the strength of the R-TSA, which is a message we will take forward in the suggestions for the ESPON research project in Chapter 10.

9.2 Border surveys - case Spain

9.2.1 The Frontur border surveys

Visitors and trips are the basic statistical units in tourism from the perspective of demand, and they are mutually linked. Not all travellers qualify as visitors, nor can border surveys register if in a given period, the same traveller has entered once or more times the country through the same or a different entry point. As a consequence, arrival figures regarding international visitors (either overnight or same-day visitors – sometimes referred to as tourist and excursionist) are used as a reasonable proxy of travellers.

In Europe the difficulties of having accurate arrivals figures for inbound tourism arises as the result of the free movement of persons within an open area (under the Schengen Treaty), even more in the case of regional approaches, with no control at all. In these countries, as in Spain, border control by police has been limited to international border points (airports and sea ports) for travellers from outside the Schengen Area.

How is it possible to obtain reliable arrival figures by different regions under such circumstances? Over the last decade Spain has developed a sophisticated system which combines administrative information provided by Traffic Authorities (regarding passengers and vehicles) with sample information provided by a border survey. Accurate monthly arrivals estimations have, therefore, been obtained by the Spanish Border Survey (Frontur). These have then been classified according to different border crossing points, countries of origin,

regions of destination at different NUTS levels and other characteristics (purpose and organization of the trip, length of stay, type of accommodation, etc…).

The success of the Spanish experience with Frontur has become evident over the past decade through the uninterrupted publication of very coherent monthly results with other sources of information as, for example, police control figures (still collected at international airports for non-Schengen travellers) or tourism accommodation statistics.

All over the world data available from administrative sources of information are, more and more frequently, used and exploited for statistical and analytical purposes. In the field of tourism, and because of the existing links between mobility and tourism, transport agencies provide a wide range of administrative information about passenger and vehicle flows, which together with ad-hoc statistical surveys could be extremely useful for tourism analysis.

Frontur is one of the few examples in the world of a joint use of administrative and sample information to estimate arrival figures at national borders within a given country. It is the key statistical tool for observing Spain's foreign tourist demand, under the responsibility of the Spanish Institute of Tourism Studies.

Frontur is a monthly statistical survey which uses a mixed system to draw results: based upon the relevant administrative records (concerning each one of the transportation modes), both vehicles counted at road border crossings (3.1 million vehicles were counted in 2005) and sample interviewing (at road and airport border points) are carried out on a continuous basis. For each one of the four transportation modes involved, the collaboration of the corresponding official bodies is relied upon: the road transit authority (Dirección General de Tráfico), airport authority (Aena), seaport authority (Puertos del Estado) and the national railway operator (RENFE).

As far as sample interviewing is concerned, Frontur actually consists of two different surveys, one being carried out on visitors' leaving the country, the other one upon their entry. The entry survey is currently being carried out at 22 road border crossings as well as 17 airports, by means of a brief questionnaire which records general aspects of the trip, through a set of questions that vary according to the typology of the traveller being interviewed: Accordingly, travellers are classified into tourists (foreign residents intending to stay overnight in Spain), excursionists or same-day visitors (those staying less than 24 hours), and Spanish residents returning home after a trip abroad.

In the exit sample survey, which is also carried out at both road borders and airports, a longer questionnaire is used, which in addition to the questions contained in the entry questionnaire, includes personal data as well as quantitative and subjective questions regarding the planning of the trip and characteristics of the stay.

Throughout the year 2005, 58.000 entry interviews were carried out at road borders, along with those corresponding to all passengers of more than 3.000 international flights. As for the exit survey, a total of 43.000 interviews were carried out at road borders and 64.000 at airports. The size of the sample used in Frontur allows Spain to provide credible and accurate figures at different regional levels and guarantee a sub-national level of comparability.

9.2.2 Regional differences in tourism

Table 9.5 shows the number of international tourists by main destination of the trip and by quarter of the year. It makes evident the different seasonal pattern existing in the different regions: for example, while at the national level the third quarter of the year – July, August and September- accounts for 36.4% of the tourist flows arriving in Spain throughout the year, in some regions like the Canary Islands, those months concentrate just 23.6% of the total tourist flows of the year. In the case of the Canary Islands it is the first quarter of the year, which is the busiest.

The seasonality of inbound tourism flows in Spain changes a lot depending on the region and province analysed (NUTS 2 and 3 level, respectively), from places like Orense, in Galicia region, or Leon, in Castilla León region, where more than 60% of the tourist flows are concentrated in the third quarter of the year, to places like Santa Cruz de Tenerife, in the Canary Islands, where the third quarter accounted for fewer than 24% of all tourist arrivals.

Figure 9.2 shows at the NUTS 3 level the number of international tourist arrivals in Spain by type of accommodation, hotels and others, during the year 2003. First of all, it is necessary to underline the great concentration of tourist flows in just a few regions mainly the Balearic Islands, the Canary Islands, Cataluña and Andalucía (most of these destinations are along the Mediterranean coastline).

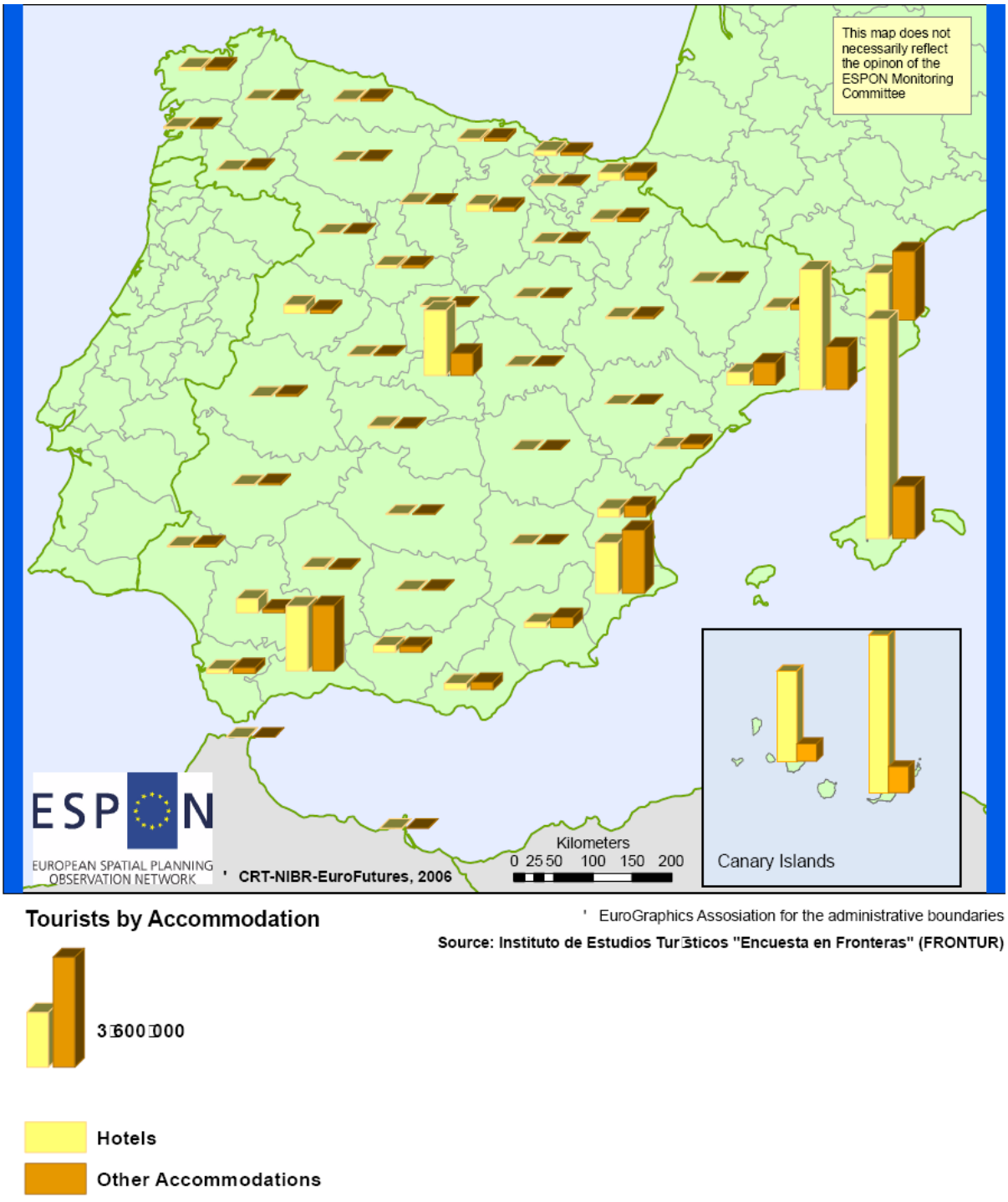
At the same time, mapping the flows of tourist arrivals at a regional level allows us to understand the relevance of some border regions like Cataluña, País Vasco and Galicia were the main road border crossing points are located. The relevance of those regions it is not only in terms of the number of arrivals but also in terms of the importance of other types of accommodations different from hotels, like rented houses and apartments or staying with relatives and friends.

Table 9.5: Number of tourists by main destination of the trip by quarter, at NUTS 3 level for Spain

Quarter	I	II	III	IV
TOTAL	**16.6%**	**27.8%**	**36.4%**	**19.2%**
La Coruña	17.0%	27.0%	42.0%	14.0%
Lugo	16.1%	26.8%	48.3%	8.8%
Orense	3.7%	15.7%	66.1%	14.6%
Pontevedra	21.4%	25.3%	38.2%	15.1%
Asturias	15.2%	20.5%	44.7%	19.6%
Cantabria	13.8%	23.7%	43.9%	18.7%
Alava	16.2%	18.1%	50.6%	15.1%
Guipuzcoa	16.3%	23.0%	43.4%	17.3%
Vizacaya	16.7%	26.5%	37.5%	19.3%
Navarra	16.7%	25.4%	40.9%	17.0%
La Rioja	14.4%	28.1%	38.4%	19.0%
Huesca	26.0%	19.1%	33.6%	21.3%
Teruel	9.9%	30.6%	43.3%	16.2%
Zaragoza	25.5%	24.5%	31.3%	18.7%
Madrid	18.9%	24.6%	30.4%	26.0%
Avila	28.2%	27.5%	29.1%	15.3%
Burgos	10.0%	21.6%	54.0%	14.5%
León	8.8%	15.7%	62.5%	13.0%
Palencia	7.3%	30.5%	39.7%	22.5%
Salamanca	18.9%	29.0%	34.0%	18.1%
Segovia	26.6%	21.6%	30.7%	21.1%
Soria	23.1%	21.1%	41.9%	13.8%
Valladolid	10.1%	20.2%	59.1%	10.5%
Zamora	14.8%	25.5%	42.0%	17.6%
Albacete	18.4%	12.4%	35.4%	33.8%
Ciudad Real	20.6%	21.1%	30.0%	28.3%
Cuenca	3.2%	20.9%	45.7%	30.3%
Guadalajara	18.5%	12.1%	36.8%	32.6%
Toledo	12.7%	25.4%	43.4%	18.5%
Badajoz	19.3%	25.4%	33.7%	21.6%
Caceres	16.4%	28.2%	31.4%	24.0%
Barcelona	17.7%	28.7%	32.3%	21.3%
Gerona	9.0%	27.5%	49.9%	13.6%
Lerida	21.6%	22.4%	37.1%	18.9%
Tarragona	11.1%	29.0%	45.3%	14.6%
Alicante	16.7%	27.5%	36.2%	19.5%
Castellón	12.4%	27.5%	45.6%	14.6%
Valencia	18.7%	26.9%	36.9%	17.5%
Islas Baleares	7.4%	34.4%	46.4%	11.8%
Almería	15.1%	30.0%	41.5%	13.4%
Cádiz	19.2%	31.1%	34.5%	15.2%
Córdoba	16.1%	32.0%	32.4%	19.5%
Granada	23.8%	27.4%	29.7%	19.0%
Huelva	21.1%	28.8%	31.6%	18.6%
jaén	23.2%	15.1%	49.8%	12.0%
Málaga	16.8%	29.6%	34.0%	19.6%
Sevilla	18.2%	32.0%	28.3%	21.4%
Murcia	13.2%	24.9%	36.5%	25.3%
Ceuta	10.2%	18.3%	51.2%	20.2%
Melilla	24.2%	41.6%	18.8%	15.4%
Las Palmas	27.6%	22.0%	24.2%	26.3%
Santa Cruz de Tenerife	28.0%	22.1%	23.4%	26.5%

Source: Instituto de Estudios Turísticos "Encuesta en Fronteras"

Figure 9.2: Number of tourists by type of accommodation, NUTS 3, Spain, 2003

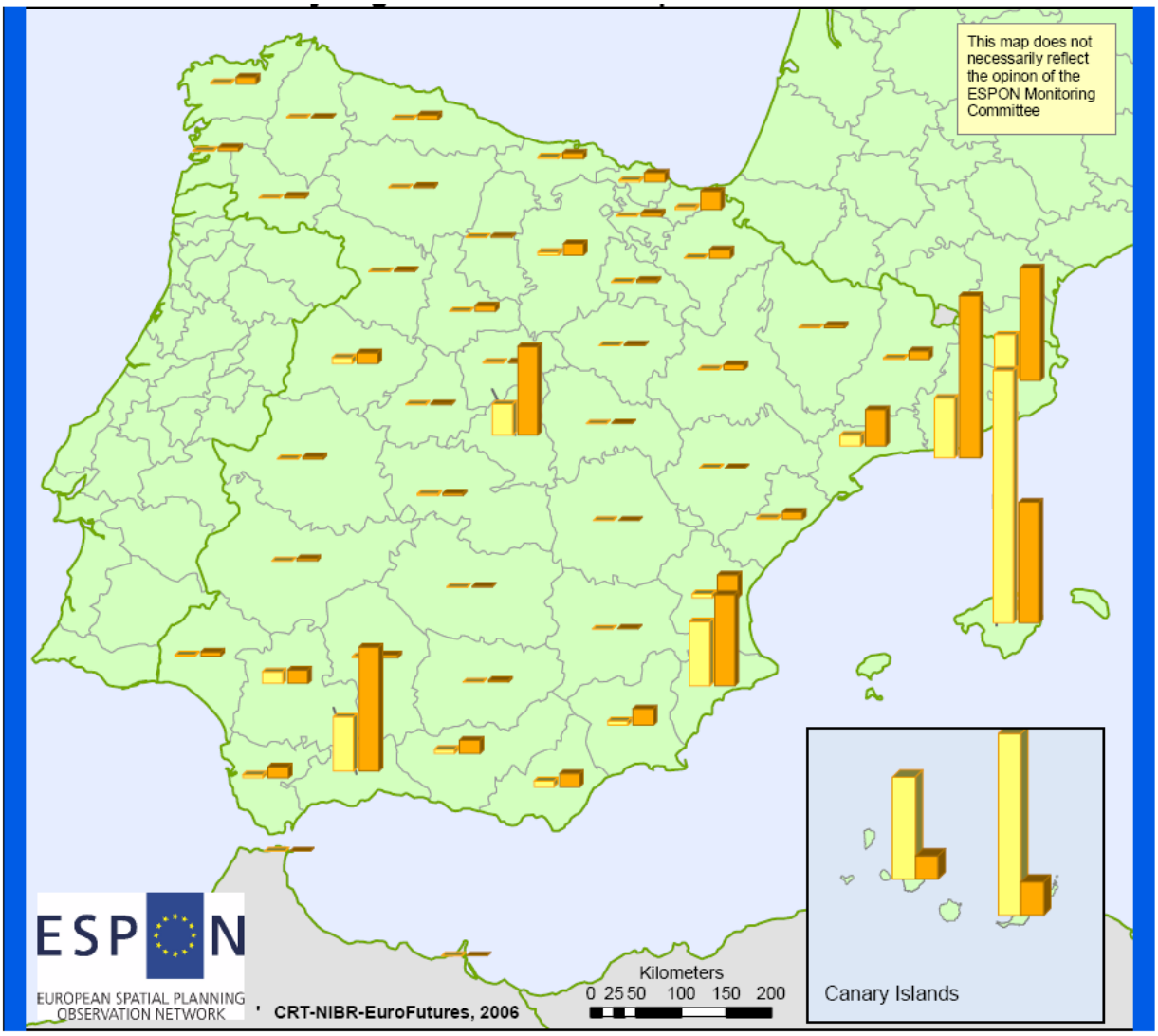


In terms of distribution of tourist flows by type of accommodation, although 64.9% of international tourists arriving in Spain stayed in a Hotel, there are numerous regions in which other types of accommodations as opposed to hotels are more frequently used. Only by analysing at a specific regional level is it possible to show the concentration of tourists who tend to stay in hotels as a phenomenon that is common only in a handful of regions. Thus, what seems to be a general trend at a national level, the more intensive use of hotels, is not so when the information is analysed at a regional level.

Figure 9.3 shows the distribution of package and non-package international tourists by main destination. It reflects, once more, the great concentration of inbound tourism in just a few regions, and within them in just a few provinces: Santa Cruz de Tenerife in the Canary Islands, the Balearic Islands, Barcelona and Gerona in Cataluña region, Málaga in Andalucía region, Alicante in Valencia region and Madrid region.

During the year 2003 Spain received more international tourists who were not participating on a package tour than those who were. Again, this general trend changes when the information is analysed at a regional level. In terms of package and non-package tourists while in the mainland regions of Spain there is a predominance of non-package tourists, in the islands it is just the opposite: 82.9% and 67.7% of the tourists received by the Canary Islands and the Balearic Islands respectively were package tourists; while 91.3% and 94.2% of the tourists received by the Galicia and Navarra regions respectively were non-package tourists.

Figure 9.3: Number of tourist by organisation of the trip, NUTS 3, Spain, 2003



9.3 Urban tourism - case TourMIS

City tourism is a main driver for growth in the European tourism industry. In Europe where there is a large number of highly mobile people living in close proximity and constantly entering, leaving and transiting neighbouring cities by car, train or plane the compilation and comparison of city tourism statistics is particularly important.

The most comprehensive regularly maintained database on city tourism exists within the Tourism Marketing Information System TourMIS (www.tourmis.info). Since 1998 the two main associations of professional tourism organisations in Europe, European Cities Tourism (www.europeancitiestourism.com) and the European Travel Commission (www.etc-corporate.org), have been using TourMIS as a platform for exchanging tourism statistics.

As a result of TourMIS, a greater importance is attached to the reliability of information and the competent analysis of that information for the effective planning, monitoring and management of tourism.

There are, however, a number of problems associated with city tourism statistics which will also need to be considered when it comes to spatial analysis. For instance, there exists no clear and accepted definition of a city or an urban area. The word city may have different meanings: It may refer to an entity which offers functions, activities and an atmosphere, or it may refer to a political/administrative unit. Moreover, the spatial borders of the tourism product being purchased by the consumer may not correspond to the administrative boundaries of a city. Current spatial classification systems like the 'Nomenclature of Statistical Territorial Units' (NUTS) do not correspond with this concept of city tourism, and also in many cases, regional tourism organisations are working within a different "geography" as well.

The TourMIS principle of setting an inventory of existing statistics on a local level and the analysis and evaluation of the long-term needs of the main users is especially important as a preliminary step for harmonizing city tourism statistics. It helps to assess the starting point of the exercise and reveals the statistical gaps which will have to be filled in order to allow more meaningful spatial and econometric analysis.

TourMIS use national and city tourism statistics available at the respective national or regional statistical office. The data is entered by more than 150 tourism managers from almost all European countries. These users (data inputers) have special data entry rights which allow them to maintain their statistics in the database. The system has an automatic procedure which reminds the data inputers by email in case they forget to update their statistics in time.

Today, TourMIS (www.tourmis.info) provides free access to market research information for more than 10,000 tourism managers, researchers, and students from all over the world and plays an important role in exchanging experiences among the participating users. Since its official Internet launch in 1999, the number of international inquiries and users was growing steadily; up to more than 120,000 inquiries in 2005. The growing proportion of tourism professionals registered in TourMIS indicates that the system is increasingly being used by tourism managers in Europe. Tourism managers use TourMIS to generate "reports" that contain rows and columns of numbers. The strengths of the TourMIS database are its attributes to provide:

- very topical information (monthly data is entered immediately when it becomes available in the different destinations);
- its intention to distinguish between different definitions following the recommendations of UNWTO;
- its capability to provide meta-information (annotations concerning the definitions and methodologies associated to the data) along with the data;
- its objective to support the information needs of tourism managers (e.g. tourism managers have the chance to discuss and decide on further system developments during regular TourMIS seminars organized by the European Travel Commission and European Cities Tourism);
- TourMIS consists of the largest regularly maintained database on city tourism statistics – currently there are data available for approximately 100 European cities.
- TourMIS also includes information on bednights and arrivals for 54 markets, including data on domestic tourism flows.

The weaknesses of the TourMIS database are:

- Spatial information is available for countries and cities only. Cities are frequently not corresponding to the NUTS classification.
- All data entries are organized voluntarily by interested tourism managers. If the official destination marketing organization is not interested (or not capable enough) data will be missing; Hence, some (presumably important) European cities are not represented in the database.
- Although TourMIS is intensively used by the industry and is supported by its pan-European representatives (European Travel Commission, European Cities Tourism), it is currently not officially acknowledged by UNWTO or Eurostat.

Tables 9.6 and 9.7 provide examples of the tables that can be generated from the TourMIS database. Table 9.6 compares countries while Table 9.7 shows figures for cities.

Table 9.6: National tourism statistics (provided by ETC members) for 2005

The table presents a summary of the most commonly used definitions (generated on May 26, 2006)

National tourism statistics of the European Travel Commission
Market: Total foreign and domestic
Period: 2005

	Bednights				Arrivals			
ETC destinations	absolute	Note	+/-	% p.y.	absolute	Note	+/-	% p.y.
Austria	119.241.539	NA	1.990.458	1,7	29.337.323	AA	870.971	3,1
Cyprus	15.058.319	NA	341.050	2,3	2.218.786	AA	31.944	1,5
Czech Rep.	40.320.477	NA	-460.231	-1,1	12.361.793	AA	142.104	1,2
Denmark	42.054.961	NA	-148.483	-0,4				
Estonia	4.110.116	NA	352.401	9,4	2.071.707	AA	149.581	7,8
Finland	17.070.502	NA	358.283	2,1	9.040.945	AA	76.869	0,9
Hungary	19.334.750	NA	19.334.750		6.933.142	AA	6.933.142	
Ireland Rep	11.856.000	NG	-8.984.000	-43,1	6.762.716	AT	-7.221.833	-51,6
Norway	25.946.303	NA	1.014.769	4,1				
Portugal	35.520.654	NG	1.380.073	4,0				
Slovakia	10.732.754	NA	-15.783	-0,1	3.428.083	AA	183.598	5,7
Slovenia	7.572.584	NA	-16.153	-0,2	2.395.010	AA	53.729	2,3
Sweden	44.940.256	NA	2.274.265	5,3				
Switzerland	32.943.736	NG	32.943.736		13.802.796	AG	13.802.796	

AV = Arrivals of visitors at frontiers
AT = Arrivals of tourists at frontiers
AA = Arrivals in all accommodation establishments
AG = Arrivals in hotels and similar establishments
NA = Bednights in all accommodation establishments
NG = Bednights in hotels and similar establishments

Notes:
ad Denmark: Monthly data before 2004 do not include holiday houses.
ad Finland: All figures related to accommodation facilities are preliminary since 2004.
ad Hungary: Source: Hungarian Central Statistical Office, Hungarian National Tourist Office
ad Slovenia: Source: Statistical Office of the Republic of Slovenia (Capacities for August)
ad Sweden: Source: Swedish Tourist Authority/Statistics Sweden
ad Switzerland: Arrivals= Arrivals at point of accomodation

Table: ETC-J6

Table 9.7: City tourism statistics (provided by ECT members) for 2005

The table presents a summary of most commonly used definitions (generated on May 26, 2006)

City tourism statistics compiled by European Cities Tourism
Market: Total foreign and domestic
Period: 2005

	Bednights				Arrivals			
Cities	absolute	Note	+/-	% p.y.	absolute	Note	+/-	% p.y.
Aachen	799.584	NA	799.584		361.783	AA	361.783	
Augsburg	461.467	NA	1.655	0,4	274.337	AA	-448	-0,2
Barcelona	12.198.243	NA	586.505	5,1	5.487.564	AA	400.877	7,9
Belgrade	1.166.771	NGS	1.258	0,1	521.171	AD	-196.545	-27,4
Berlin	14.620.315	NA	723.955	5,2	6.464.522	AA	304.555	4,9
Bilbao	1.021.494	NG	56.821	5,9	550.264	AG	31.970	6,2
Bonn	1.159.506	NA	95.257	9,0	606.267	AA	51.504	9,3
Bregenz	264.549	NA	-2.550	-1,0	148.669	AA	-2.525	-1,7
Budapest	6.536.950	NA	501.129	8,3	2.577.371	AA	239.189	10,2
Cardiff	1.540.000	NA	157.000	11,4	694.000	AA	17.000	2,5
Copenhagen	4.719.457	NGS	269.708	6,1				
Dijon					809.431	AG	59.689	8,0
Dresden	2.949.215	NA	310.195	11,8	1.346.787	AA	111.461	9,0
Dublin	21.638.000	NZS	1.197.000	5,9	4.991.000	AZS	143.000	2,9
Dubrovnik	1.887.619	NA	287.339	18,0	465.363	AA	79.853	20,7
Eisenstadt	49.427	NA	7.319	17,4	26.316	AA	2.531	10,6
Gijón	674.710	NG	81.475	13,7	285.400	AG	20.256	7,6
Göteborg	2.963.682	NGS	236.830	8,7				
Graz	729.029	NA	11.066	1,5	381.054	AA	29	0,0
Hamburg	6.435.106	NA	523.642	8,9	3.450.864	AA	203.816	6,3
Heidelberg	929.765	NA	29.274	3,3	532.067	AA	10.645	2,0
Helsinki	2.555.310	NA	57.141	2,3	1.425.733	AA	17.057	1,2
Innsbruck	1.206.104	NA	34.315	2,9	664.930	AA	-16.222	-2,4
Klagenfurt	360.456	NA	16.617	4,8	165.041	AA	595	0,4
La Coruna					634.674	AA	-49.872	-7,3
Linz	686.938	NA	39.455	6,1	372.746	AA	3.922	1,1
London	119.600.000	NZS	900.000	0,8	25.800.000	AZS	-400.000	-1,5
Luxembourg City	801.914	NA	50.161	6,7	403.339	AA	33.773	9,1
Malmö	925.016	NG	63.443	7,4				
Munich	8.355.517	NG	668.284	8,7	4.122.156	AG	377.756	10,1
Münster	1.085.130	NA	33.102	3,1	478.291	AA	36.629	8,3
Novi Sad					67.646	AG	67.646	
Nürnberg	1.956.393	NA	81.108	4,3	1.072.980	AA	50.287	4,9
Olomouc	231.335	NA	15.948	7,4	111.692	AA	2.425	2,2
Paris	33.664.075	NG	2.086.262	6,6	15.399.820	AG	207.263	1,4
Prague	11.204.950	NA	538.321	5,0	4.108.565	AA	244.576	6,3
Regensburg	660.176	NA	22.964	3,6				
Reykjavik	886.668	NA	56.150	6,8	389.753	AA	19.272	5,2
Salzburg (City)	1.884.864	NA	42.954	2,3	1.047.029	AA	18.339	1,8
St. Etienne	445.466	NA	14.260	3,3	247.897	AA	-11.200	-4,3
St. Pölten	107.404	NA	6.939	6,9	52.692	AA	1.793	3,5
Stockholm	5.024.135	NA	371.095	8,0	2.651.889	AA	204.923	8,4
Tallinn	1.938.045	NA	249.188	14,8	1.130.570	AA	67.991	6,4
Tampere	735.577	NA	-6.025	-0,8	491.265	AA	23.418	5,0
Tarragona	1.215.215	NA	244.035	25,1	355.853	AA	81.711	29,8
Turku	705.786	NA	14.980	2,2	423.502	AA	17.610	4,3
Valencia	2.490.060	NG	318.676	14,7	1.286.962	AG	162.521	14,5
Vienna	9.476.164	NAS	394.295	4,3	4.088.415	AAS	190.195	4,9
Weimar	543.239	NA	64.425	13,5	276.941	AA	28.738	11,6
Würzburg	638.685	NA	545	0,1	382.543	AA	-14.028	-3,5
Zagreb	897.116	NA	155.866	21,0	487.558	AA	88.493	22,2
Zurich	2.990.916	NA	110.655	3,8	1.673.277	AA	54.550	3,4

9.4 Conclusions

The three examples discussed above, all illustrate that there exist in certain countries more detailed data that also are useful for spatial planning and destination management at the regional level.

It is not possible to extend the examples provided to pan-European coverage with comparable data. There are initiatives for the development of regional TSAs, but there is a long way to go before European countries will use the TSA and even further before the data provided will be comparable. Border surveys are conducted in a limited number of countries, and there is currently not any international agreement to develop this line of work in a comparative way. The TourMIS database utilises destination managers and city administrations as the main user groups, and works on a voluntary basis; this means that there is a problem of quality control.

These examples do however show that there is knowledge on the spatial effects of tourism to be found in many places around Europe. A future ESPON initiative should capitalise on this. More experience can be gained by establishing a network of researchers within tourism and within spatial planning that is able to go beyond the limits of the current statistics.

10 Proposals for an ESPON 2013 research project

An important outcome of this pilot study is a framework for a project that can be carried out as part of the 2007-2013 ESPON 2013 programme.

The first section sets the scene and describes the relevance of tourism for spatial planning. The following sections are based upon observations made in previous chapters regarding data availability and suggest a focus for the new project. They also discuss how the lack of comparative data can be mitigated.

10.1 Why tourism is important for spatial planning

The ESPON programme is primarily about spatial planning in Europe – the development of regions across Europe as well as the need for policies to provide a political response to positive or negative trends and developments. Increased integration enhances specialisation and competitiveness, and also increases flows of goods and persons. We need to know more about the present situation in a comparative way; Europe's strengths and weaknesses, where resources and assets are located; particular challenges for various types of regions; which regions most likely will be affected by trends and possible trend shifts. The aim is to provide better knowledge of opportunities and challenges and to contribute to policy development at the regional, national, and pan-European levels.

Travel and tourism has numerous impacts on regional development across Europe in several ways:

- *Travelling.* Travel equates to flows of persons who move for various reasons including the pursuit of business interests but also the need to visit places for leisure and relaxation. This travel can involve long-distance trans-continental trips but also an enormous number of shorter origin-destination flows. These flows place significant burden on existing transport infrastructure and constantly lead to calls for added capacity in the form of new highways, airport terminals and runway expansions, and additional high speed rail corridors to name but a few. On the plus side, new infrastructure can serve to put an isolated locality on the map and more often than not opens up opportunities for economic expansion. Unfortunately, however, decisions as to where to locate such infrastructural developments commonly lead to heated public debate to a large extent because of their association with major negative environmental impacts. Gaining a solid understanding of the manner in which tourism displacements influences travel flows and, by association, demand for new infrastructure will increase our understanding of

investment needs. It also helps us develop more robust planning techniques to mitigate the most serious adverse impacts associated with such infrastructural developments, as well as related challenges in managing them.

- *Physical planning at destinations*. In those geographic locations where tourism is a major activity compared to others, the travel-related sector can have significant impacts. This is due to the fact that accommodation facilities, such as hotels but also attractions (such as theme parks) are major consumers of land and highly visible. In turn, these activities if allowed to develop in an uncoordinated manner commonly lead to numerous adverse problems including traffic congestion, air pollution, excess sewerage, damage to architectural heritage, and loss of wildlife habitats. Clearly, to mitigate such problems a strong case can be made for a coordinated approach that recognises tourism as an integral component of spatial planning. After all, the development of tourism-related facilities is closely linked to all components of the land use system including transportation and other infrastructural developments, housing, commercial establishments, and public services. Spatial planners can benefit by recognising tourism's impacts and how this industry plays out in any particular destination.
- *Employment and economic impacts.* Tourism is growing and its growth is associated with the creation of jobs for an increasing number of people. Indeed, the opportunities for economic growth and diversification and the job-creation potential, not to mention the employment multiplier, are major reasons behind the promotion of tourism in so many localities throughout the world. Despite this growth, however, there is an on-going debate concerning the actual numbers and the quality of jobs in this economic sector. Critics of the sector commonly argue that too many of the jobs that are created are low-skilled, low-paid, seasonal and/or part time. In depth research concerning these issues will serve to reduce such uncertainties and provide answers regarding multiplier effects for different kind of tourism destinations. In turn, such information is extremely valuable for regional development programmes.
- *Natural and cultural heritage*. Travellers, especially those who travel for leisure and recreation, enjoy the act of travelling itself, since it provides the opportunity to see and experience new cities, landscapes, cultures, etc. Sometimes destinations have specific attractions, which are either natural (e.g., mountains) or human-built (e.g., architectural heritage sites). In other cases, facilities are built to entice tourists. These include museums, sports facilities, or aquariums, while in other cases shopping opportunities provide the opportunity for travel. Obviously, tourism – especially if it is not well planned - can represent a threat to attractive

destinations. In other words, too much unregulated tourist development can lead to damage of the various resources that are enticing visitors in the first place. By the same token, because of tourism, valuable heritage or landscapes can be preserved, maintained, or even resurrected. Spatial planners must recognise these issues and take them into account when revising policies and plans for their regions or communities.

For spatial planning, all travellers are of importance: domestic or foreign, leisure or job-related, long or short visits, etc.

We have in this pilot study made an assessment of definitions and data on tourism and travel, and the conclusion is that the available data is very limited and also inconsistent. There are only limited data available that can be used to describe tourism in a way that is useful for spatial planning and policy purposes. The main challenge for an ESPON 2013 project on tourism is to focus on the most relevant spatial planning issues and to establish a set of comparative data that make it possible to describe and analyse the current situation as well as future trends.

10.2 A more holistic approach to tourism research

There has been increasing interest both on the part of national and sub-national tourism authorities in terms of enlarging the traditional narrow focus, which regards tourism as a sector in its own right toward a more holistic framework approach. Some of the reasons supporting this shift in focus are related to:

- the worldwide trend towards a certain degree of de-concentration of political power and, more especially, the decentralized management of national resources in federal states, regions, municipalities, etc., which, in order to allocate and monitor those resources effectively, need more and better integrated regional and local information;
- the multifaceted nature of tourism activities, which can potentially benefit rural areas seeking diversity, and areas overlooked so far as the prevailing production model is concerned;
- the unequal geographical distribution and characteristics of tourism activity within the national territory, from the standpoint of both demand and supply, leading to additional requirements for tourism statistics at the various territorial levels;
- the growing interest of tourism-related businesses in learning about the impact of their activity and their main determinants and seasonal trends;
- the necessity of improving the allocation of resources in national and local economies, which can only be achieved by upgrading quantitative references and measuring impacts;

- the flow of tourists and visitors in an enlarged Europe, which is becoming not only more frequent but also more multifarious in terms of length of stay, destinations, purpose etc;
- infrastructure developments and transport decisions in one destination affect other destinations – e.g. establishing a new low-cost route.

From our research and based on the experience of the past research carried out by the team members, a set of initiatives have been selected to be carried out in a further project. All of them have a clear policy-oriented aim and are related to three areas:

- tourism flows
- economic contributions
- sustainability impacts.

The study should refer to the situation in the ESPON member states (29 countries presently, probably 33 countries in the next programming period) and be focused on inter- and intra-national comparability.

One main consideration is to utilise the current knowledge level in many countries to develop an enhanced understanding of the impact of tourism for spatial planning and regional policy. As we have seen in this report, it is a challenge to calculate data that can be used for comparative research. It is, therefore, necessary to go back to some of the more basic preconditions for comparative research such as common understanding and definitions, as well as establishing a network of researchers that together will be able to perform superior analysis.

10.2.1 Tourism flows

There are important reasons regarding the need to fill the information gaps at different sub-national levels (either by conducting supplementary surveys, using administrative data, applying modelling techniques, or through a combination of some or all of these): the change that the traditional production structure is undergoing and the role that tourism can play in terms of employment creation, the scant importance that certain regions attach to analysing the average national values of tourism industry activity, the adequate coverage of some of these industries, the differences (both in quantity and composition) from region to region in flows of visitors and forms of accommodation, etc.

Since in the context of spatial planning we will have to use the official national statistics available, the most promising way forward is probably to calculate the impacts of definitional differences and on that basis to establish a new data set that is far more comparable than at present.

We have earlier in this report repeatedly commented on the lack of comparative data. There are no prospects for improvement within the timeframe for ESPON 2013. One way to mitigate these deficiencies will be to produce "formulas" that may be used to compare statistics that are produced in different ways and/or with different methods.

Four measures appear pertinent:

- To make it possible to compare Eurostat's accommodation data at the sub-national level, i.e. to calculate the effects of the differences in definitions and to suggest a way to harmonise these data.
- To make it possible to compare visitor data between countries, i.e. to calculate the effects of the various ways visitor data are produced and to suggest how they can be harmonised and made comparable.
- To make it possible to compare the total tourism sector, not only international tourism, i.e. to integrate domestic travellers in the total figures for visitors. Since domestic tourism is larger than international tourism for most regions and particularly so in the larger countries, it is of paramount importance to include this into the overall description of travel patterns and the travel industry as a whole.
- To make it possible to compile additional regional tourism data concerning economic impacts from tourist expenditure, tourist activities (including one-day tourists) and private accommodation.

10.2.2 Economic contributions

Because both the demand for and supply of tourism are spread unevenly over any given national territory, appropriate statistics are needed at the various territorial levels for gauging the varying economic impacts of tourism. Improving available data and indicators on a sub-national level should be understood as a key priority in a further project.

We have recognised the great potential for analysis provided by Regional Tourism Satellite Accounts. There is, however, a long way to go before this is a tool that may be used for international comparisons at a sub-national level. It is therefore necessary to look for other ways to proceed.

Probably, the most important indicator for the importance of tourism in a given region is the number of jobs it produces. To calculate the employment in tourism-related sectors (e.g., the hotel and restaurant sector or the inter-city transportation sector) then becomes important. It is especially important to gauge the extent to which regions specialises in tourism-related activities compared to the nation as a whole. In other words, the question is: Does the region under investigation produce more of a certain good or service than is needed for its own use? If the answer is "yes," this means part of what is

produced is to be exported to non-local markets. If the answer is "no," then the region has to import the good or service to make up for the local demand shortfall; in turn, this will lead to consumption leakage.

The simple way for calculating whether a region specializes in a specific sector or not, is the location quotient. In this well-known approach, where the local or regional economy is compared to that of a larger geographical area (commonly the nation - a key assumption is that the national economy is self-sufficient). To calculate the location quotient for any given sector, we merely need to find the ratio of the percentage of total local employment working in that particular sector to the percentage of national employment in the same sector.

Using the location quotient to identify employment patterns in European regions has many merits because it allows one to identify localities that specialize in tourism-related activities. Unfortunately, however, it is not yet practical to obtain NACE employment data by economic sector for identical sets of regions (e.g., all NUTS 3 regions) for the whole of Europe. Certain countries only report sector-specific national-level data while others report the data at the county level.

One point of departure for this work is the lists of tourism-related sectors that were presented earlier in this report. Since results will have to be produced country-by-country, it will be possible to work with national data during the first stage and to make international comparisons as a second step.

Administrative records may also provide data that are extremely valuable both for completing the measurement of basic statistical units (such as overnight stays, trips and employment) and for identifying information that is especially relevant to the regions, for instance, relating to itineraries by visitors. What is more, tourist activity itself increasingly leaves "electronic fingerprints" of various kinds, thereby boosting the number of potentially usable records: the use of toll roads, credit cards, mobile telephones and tourism related internet activities (promotion, booking, sales etc.) are some examples of this. The new project should also look more closely into the possibilities of using sources like this to get a better picture of tourism expenditure and economic impacts.

10.2.3 Sustainability impacts

Tourism is an activity that encompasses human behaviour, the use of natural resources and interaction among people, economies and settings, which necessarily implies an impact on residents, their economy and the environment.

As such, it generates economic, socio-cultural and environmental externalities, which can be both positive and negative.

The Tourism Satellite Account (TSA) and the System of Integrated Environmental and Economic Accounting (SEEA) are the UN conceptual frameworks to be taken as reference for structurally linking tourism and sustainability for the ESPON

Programme perspective. Another effort to be considered, is the ongoing work by Eurostat to develop a manual on sustainable tourism indicators (Eurostat 2006). By selective use of these indicators it should be possible to identify and highlight/visualise areas where tourism causes environmental strain. Furthermore these indicators could be integrated with/related to other types of data/indicators in order to create a composite and enriched analysis and understanding of tourism impacts.

Eurostat has proposed a core set of 20 indicators for sustainable development that can be used for estimating the environmental and social impacts of tourism at both the national and regional levels.

10.3 Challenges for regional development in tourist regions

An ESPON 2013 project on tourism should link data on tourism to other characteristics of regions where travel and tourism has a significant impact on physical planning, economic development or sustainable development. An important part of the study will be to construct typologies where similar regions are grouped together – on the basis of the significance of tourism today as well as regarding potential future challenges.

Based on existing and the potentially new data compilations for different NUTS levels, it should be possible to develop a set of typologies that can be used for comparisons of tourism destinations. This could include typologies based on seasonality (winter/summer), spatial attributes (rural/urban or coastal/mountainous), activities (culture, shopping, recreation), physical infrastructure (accomodation, attractions, facilities, transportation), employment (sectoral, seasonal) and the character of tourism businesses (SMEs/large scale, domestic/international) etc.). Ultimately these typologies should be able to inform and facilitate planning and policy intitatives at EU, national and regional levels.

One part of this work will also be to utilise other ESPON studies. We have made an assessment of the ESPON 2006 programme to identify the most relevant projects (Table 10.1).

In addition, other new ESPON projects will also provide new opportunities for comparative analysis.

Table 10.1: ESPON 2006 projects of particular relevance for future tourism projects

Tourism flows

- *Project 1.1.1: Urban areas as nodes of polycentric development.* This project has made an attempt to define urban areas and their functional specialisation. The FUA ranking may be used in an analysis of main tourist destinations – particularly the 76 strongest FUAs can be compared with TourMIS data.
- *Project 1.1.4: Demographic trends* analyse data on population development 1990-2000 for all NUTS 3 regions. These figures can be used to test any hypothesis about the correlation between population growth at the regional level and the presence or absence of a strong tourism sector in the regions.
- *Project 1.4.4: Flows.* This pilot study is addressing one of the main deficiencies in the study of regional development, namely the flows.
- *Project 3.2: Scenarios.* This is the largest of all ESPON projects in the current programme. At least two alternative scenarios up to 2030 are made for each of 9 specific sectors. Several of the sectoral scenarios are of interest for the tourism sector, as especially increased energy prices and climate changes may have dramatic consequences for travel patterns. This will change the attractiveness of destinations.
- *Project 3.4.1: Europe in the world.* This project discusses mental maps and the degree of proximity between Europe and other parts of the world and air traffic flows in and out of Europe.

Economic contributions

- *Project 1.1.2: Urban-rural relations*. Tourism as an opportunity for rural residents to find alternatives to farming oriented activities.

Sustainability impacts

- *Project 1.3.1: Natural hazards.* This project analyse the spatial patterns of natural and technological hazards at NUTS 3 level in EU29. The hazards studied are those that have to do with spatial planning, i.e. climate change, natural hazards and potential technological hazards, and may be used to identify those regions where hazards potentially could be a threat for destination's attractivity and hence the tourism industry.
- *Project 1.3.2: Natural heritage.* The degree of nature and pressure on nature is assessed at NUTS 3 level and may be used to see to which degree tourist intensive regions are on the scale natural-urban and on the scale low pressure-high pressure.
- *Project 1.3.3: Cultural heritage and identity.* Cultural establishments are part of tourism industry in many destinations. Definitions and data availability does however limit the opportunities for comparisons.

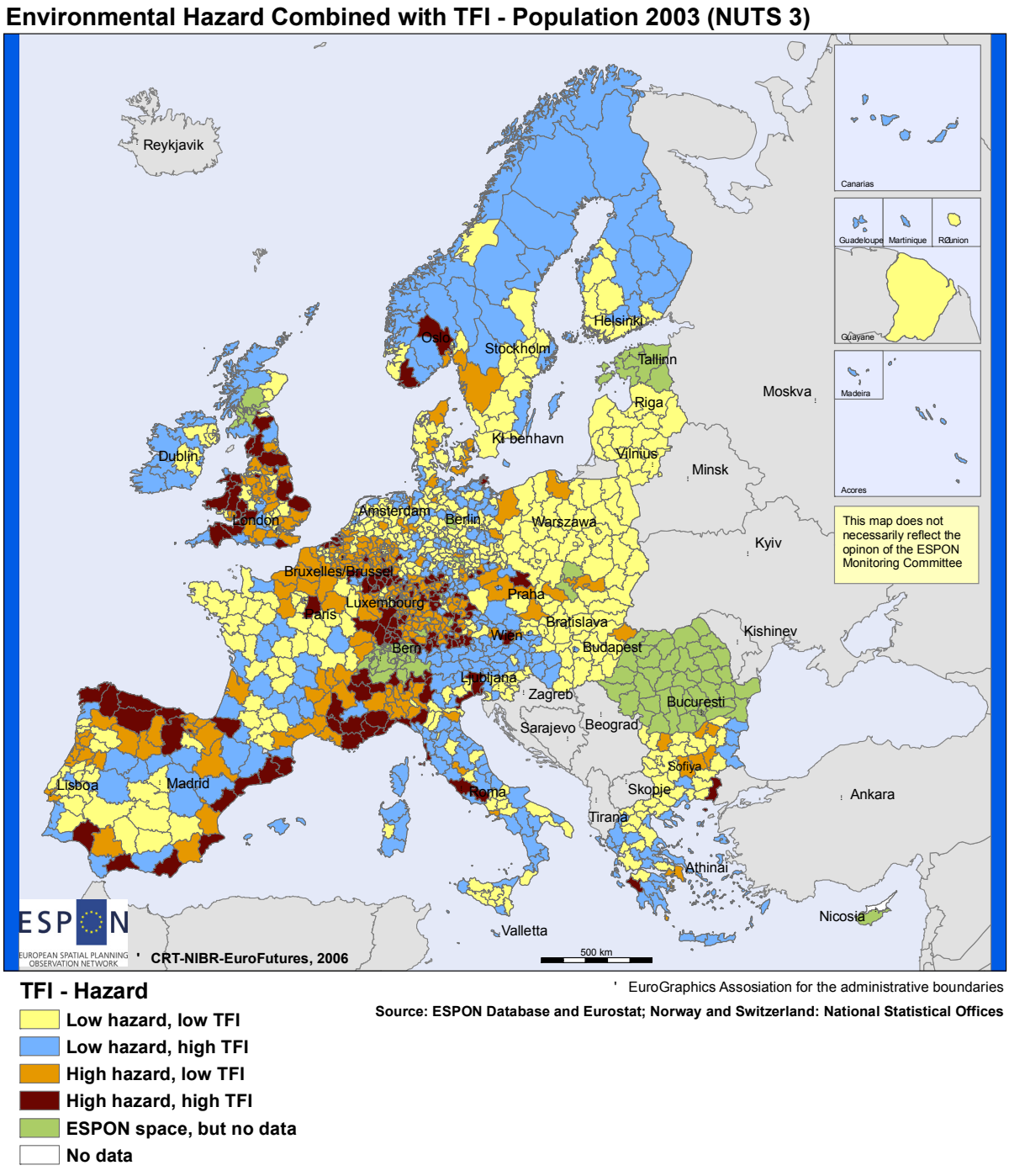
One possibility is to compare the new regional figures for tourism density with other regional indicators produced by ESPON research. One example is provided below. Figure 10.1 overlays regional information relating to the density of hotel beds (the Tourism Function Index developed in Chapter 8) with information relating to various kinds of hazards (an indicator produced by ESPON project 1.3.1). As we can see, there are a number of high-density touristic regions, in which there concurrently is a relatively high hazard risk. A new project can go further and analyse the kinds of risks in a more detailed fashion and thereby identify what kind of planning challenges these kinds of risks impose on different European regions.

An interesting strand of research will be to assess possible changes in travel patterns due to factors that are external to the industry itself.

Two of the factors that may change the preconditions for tourism are the on-going process of global warming and the likelihood of significant increases in energy prices. Some winter sport destinations will face difficulties if the season with snow gets shorter, parts of southern Europe may become too hot to be pleasant for summer visitors, while more northern locations may experience a more favourable summer climate. Oil production will soon have reached its limit, which most likely will result in considerably increased prices. This may, in turn, mean that travelling will become significantly more expensive. People may spend their holidays closer to home, and business travel may partly be replaced with other means of communication. Low-cost airlines may become history and airports opened for regular traffic in the 1990s closed.

Factors like this will change travel patterns, and some regions will lose out on tourism while others will, undoubtedly gain. For spatial planning, the impact will be stronger demands for new infrastructure than before in certain regions, while parts of the existing infrastructure in former strong tourism destinations, will have to be adapted for new purposes.

Figure 10.1: The tourism function index and the risk of environmental hazards



Source for data on environmental hazards: ESPON project 1.3.1, Geological Survey of Finland.

10.4 Conclusions / Terms of Reference

As the terms of reference for a new project we propose a full-scale ESPON 2013 project with the main purpose of making it possible to measure and analyse the significant spatial impacts generated by tourism at the national and sub-national levels throughout Europe. Ultimately, it should be the aim of the project to recommend a number of policy and planning initiatives as well as regulatory and management instruments to ensure that tourism evolves in a sustainable manner, in which economic growth priorities are reconciled with the environmental and socio-cultural fabric at the Pan-European, national and regional level. The study should refer to the situation in the ESPON member states and be focused on inter- and intra-national comparability.

The anticipated budget for this work is ca 1 mill €. We have also been asked to propose a study of half that size. With a significantly reduced budget we will have to abandon the extensive survey we propose to carry out in order to get a set of comparable data on travelling for all countries involved, which is a very resource-demanding undertaking.

10.4.1 Areas of study

As outlined above, we suggest three main areas of study to be in focus for a major project on the spatial impacts of tourism:

1. Travel and flows

Travel equates to flows of people, who move for a number of reasons and for various duration and distance. This has a number of spatial implications, both at the place of origination and destination. By gaining a solid understanding of the patterns and characteristics of travel flows, it should be possible to identify a range of critical issues for planning and management considerations. Questions to be answered includes: The patterns of flows – to which places in Europe do people go and when? The types of flows – who is going where, for how long, and why? The carriers/movers of flows – how do people move?

2. Economic effects and employment

The rapid growth of tourism is associated with the creation of jobs, business start-ups and general economic development. The spatial impacts of tourism-related economic development are highly visible in urban as well as rural settings, and the competition between European tourist destinations for visitors and investments is ever increasing. In order to better grasp the effects of tourism on regional economic development, the following areas of study should be included:

Demand-side:

- Tourist expenditures and consumption – how much is spent on a daily basis by visitors, on what and where? ´

Supply-side:

- Accommodation – collective and private;
- Transportation – to and at the destination;
- Other tourism related facilities/services – guide services, shopping, tourist information and so on;
- Attractions – human-built and natural.

Job creation and economic development:

- Employment structure – skills, wages, and seasonal (migrant labourers);
- Business structure – SMEs/large scale.

3. Environmental and social effects

In those geographic locations where tourism is a major activity the travel-related sectors have significant impacts. Accommodation establishments (e.g. hotels), attractions (e.g. theme parks) and other tourism-related facilities (e.g. shopping centres and golf courses) are all major consumers of land and highly visible. Furthermore, in many places tourism generates traffic congestion, air pollution, excess sewerage, damage to architectural heritage, and even loss of wildlife habitats. Thus, in this part of the study, particular attention will be given to analysing the impacts of tourism for:

- Physical environment - infrastructure for transportation, accommodation, facilities;
- Natural environment - fuel emissions, water resources, energy resources, land use;
- Social environment – cultural heritage etc.

10.4.2 Organisation and methodology

As this preparatory study has clearly demonstrated, it will be a substantial task to secure the quality and consistency of data that can provide the foundation for a qualified analysis of the spatially relevant aspects of tourism. Thus, it is paramount to determine how this project will be carried out. We suggest four main requirements for the organisation and methodology as a basis for the proposed project.

1. Network of experts

A substantial and sustainable network should be created, consisting of a core group of academic experts who will work closely with relevant national and regional authorities, representatives from the tourism industry as well as with Eurostat and the ESPON-network.

The aims of the research network are to utilise the full body of knowledge available throughout Europe, to get better access to national data, to facilitate the calculation of the effects of definitional differences and variations in the way official statistics are collected, and to analyse the proposed European survey.

2. Qualification of data and indicators

Most fundamentally, the tourism-related data has to be complemented and harmonised in terms of concepts and definitions, and the methods of compilation and calculations should become consistent. This relates to all of the above-mentioned focus areas, i.e. tourism-related economic, environmental and social impacts. This should be one of the main tasks to be carried out by the network of experts. Four areas of work are particularly vital:

- To make it possible to compare Eurostat's accommodation data at the sub-national level, i.e. to calculate the effects of the differences in definitions and to suggest a way to harmonise these data.
- To make it possible to compare visitor data between countries, i.e. to calculate the effects of the various ways visitor data are produced and to suggest how they can be harmonised and made comparable.
- To make it possible to compare the total tourism sector, not only international tourism, i.e. to integrate domestic travellers in the total figures for visitors.
- To make it possible to compile additional regional tourism data concerning economic impacts from tourist expenditure, tourist activities (including one-day tourists) and private accommodation.

3. A European survey

In order to capture the flows of tourists, we suggest carrying out a survey about travelling habits throughout Europe. This can be a postal survey or a telephone-based interview. The techniques used should be selected on the basis of cost-efficiency, and may be different from country to country. The questions shall focus on why people are travelling, how often, where, domestic vs. foreign trips, accommodation used, money spent on the travel and in the destination, etc.

The benefit of this survey is that it will provide comparable data. The data will give access to information currently unavailable as the definitions used will be the same in all countries.

And equally important: the data collected can be used for the recalculation exercises necessary to make official statistics comparable for the national as well as the sub-national levels. There are no prospects for significant improvements of official statistical data at sub-national level within the timeframe for ESPON 2013. The best way to mitigate these deficiencies is to produce "formulas" that may be used to compare statistics that are produced in different ways and/or with different methods. The survey will be a key measure in this respect.

Our proposal is built on an anticipated 1 mill € budget. If the budget for a future study is reduced substantially below this level, the survey will have to be left out.

4. Comparative and case-study based analysis

The qualification of data and indicators should make it possible to carry out comparative analysis between nations (NUTS 0) and regions (NUTS 2-3) regarding substantial aspects of tourism. However, this will not be possible for all aspects, and consequently some analysis has to be case-based, once again through carefully selected criteria.

10.4.3 Contribution to the ESPON database

One important output of the future project should be the establishment of a database with comparable information at regional level. The data will partly consist of information from the proposed survey, partly of Eurostat statistics that is recalculated to be more comparative than they currently are, and partly of input from national data sources that also is tested and recalculated to make comparisons across borders possible.

The database shall include tourist-specific information as illustrated in Table 10.2 (for further definitions see annexes).

Territorial indicators shall also be included, in the following sectors

- Accessibility and connectivity
- Land use and location of natural and cultural assets
- Education levels, labour market participation and employment structure
- GDP and household income levels
- Particular risks for natural and technological hazards
- Risks stemming from possible future developments (political, natural, economic).

Table 10.2: Basic tourism data for comparative research

			Units	NUTS 1	NUTS 2	NUTS 3
	INBOUND TOURISM					
1.1	Arrivals of visitors (overnight and same-day)	1/	('000)	X	X	X
1.2	Guests in hotels and similar establishments		('000)	X	X	X
1.3	Average length of stay of non-resident tourists in all accommodation establishments	2/	Nights	X	X	X
1.4	Visitors tourism related expenditure	3/	€ Mn	X		
	DOMESTIC TOURISM					
2.1	Guests in hotels and similar establishments		('000)	X	X	X
2.2	Average length of stay of resident tourists in all accommodation establishments	4/	Nights	X	X	X
	OUTBOUND TOURISM					
3.1	Departures	5/	('000)	X		
3.2	Number of trips of resident tourists (of the country of origin), according to countries of destination		('000)	X		
3.3	Number of overnight stay of resident tourists (of the country of origin), according to countries of destination		('000)	X		
3.4	Visitors tourism related expenditure in other countries	6/	€ Mn	X		
	TOURISM INDUSTRIES					
	Hotels and similar establishments: activity					
4.1	Number of establishments		Units	X	X	X
4.2	Number of rooms	7/	Units	X	X	X
4.3	Number of bed-places	7/	Units	X	X	X
4.4	Occupancy rate	8/	Percent	X	X	X
4.5	Average length of stay	9/	Nights	X	X	X
	HORECA: employment					
4.6	Persons employed		Units	X	X	X
4.7	Remuneration paid		€	X	X	X
4.8	Hourly wage rate		€	X	X	X
	RELATED INDICATORS					
	Share of:					
5.1	Non-resident visitors tourism related expenditure in total export of services		Percent	X		
5.2	Resident visitors tourism related expenditure in other countries in total import of services		Percent	X		
5.3	Non-resident visitors tourism related expenditure in actual total consumption		Percent	X		
5.4	Resident visitors tourism related expenditure in other countries in actual total consumption		Percent	X		
5.5	Non-resident overnight visitors (tourists) in total population at destination		Percent	X	X	X
5.6	Resident overnight visitors (tourists) in total population at destination		Percent	X	X	X
5.7	Persons employed in HORECA in total employed persons at destination		Percent	X	X	X
5.8	Remuneration paid in HORECA in total employed persons at destination		Percent	X	X	X
5.9	Hourly wage rate in HORECA in total employed persons at destination		Percent	X	X	X

Notes:

1/ When a person visits the same country several times a year, each visit by the same person is counted as a separate arrival. If a person visits several countries during the course of a single trip, his/her arrival in each country is recorded separately. Consequently, arrivals are not necessarily equal to the number of different persons travelling.
Arrivals data correspond to international visitors to the economic territory of the country of reference and include both tourists and same-day non-resident visitors.
Data may be obtained from different sources: border statistics derived from administrative records (police, immigration, traffic counts, and other types of controls), border surveys and registrations at accommodation establishments.

2/ Average length of stay refers to the average number of nights spent by non-resident guests in the country.

3/ Balance of Payments items: 1.4 ("travel" plus "Passenger transport") corresponds to the "Credit" side (receipts for the country).

4/ Average length of stay refers to the average number of nights spent by resident guests in the country.

5/ Departures data correspond to tourists and same-day resident visitors outside the economic territory of the country of reference. As in the case of arrivals, departures are not necessarily equal to the number of different persons travelling.

6/ Balance of Payments items: 3.4 ("travel" plus "Passenger transport") corresponds to the "Debit" side (expenditures in other countries).

7/ The number of rooms and bed-places refers to the capacity in hotels and similar establishments for providing temporary accommodation to visitors.

8/ Occupancy rate refers to the relationship between available capacity and the extent to which it is used. This rate may refer either to use of rooms or of beds. Occupancy rate is based on the number of overnight stays of both resident and non-resident tourists.

9/ Average length of stay refers to both resident and non-resident overnight stays.

10.4.4 A comprehensive framework for analyses of the spatial impacts of tourism

Through the improved data collection and compilation, comparative analysis and case studies generated by the network of experts it should be possible to achieve three major outputs in a full-scale project:

1. Typologies of tourism based on spatial dimensions

As indicated in this pilot study, a major output of the qualification and compilation of data and the additional comparative analysis and case studies, will be to generate a set of typologies of tourism destinations that can inform and facilitate tourism-related planning and policy initiatives in Europe. For instance, a typology of destinations can be created based on the density of tourism accommodations in each region. Another typology could be based on demand-side data and yet another could relate to the degree to which tourist destinations are vulnerable to environmental problems. Each typology is useful for creating maps indicating the spatial variation of tourism as it is influenced by or it influences various factors. The maps, in turn, can be used to guide policymakers in devising targeted actions that closely match the contingencies of each destination.

2. Composite depiction of tourism impacts

In essence, tourism has inter-linkages with numerous areas of activities. These include, among others, travelling, economic activities and environmental effects. Thus, it is imperative that the proposed project ties into the other ESPON projects in a synergetic way. As demonstrated earlier, the simple overlay map relating the tourism function index to the level of environmental hazards in European regions provides a visual dimension to the challenges that tourism intensive areas are facing. Thus, the project should also provide a composite depiction or tourism impacts by substantially relating to other ESPON-projects as soon as comparative data are available for such exercises.

3. Planning and policy recommendations

Ultimately, the project should generate recommendations for tourism-related spatial planning and policy initiatives at various levels of governance. These

recommendations are envisaged to enlighten a number of planning and policy areas, most importantly:

- Transportation (congestion, pollution)
- Infrastructure (land use, zoning)
- Attraction management (human-built, natural)
- Visitor management (carrying capacity, seasonality)
- Sustainable environment (water, energy, climate change)

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Annexes

Annex 1 – Standard International Classification of Tourism Activities (SICTA)

SICTA TABLE

1	2	3	4	5	Category
ISIC division	ISIC Group	Class Main-sub		"T" for subclasses dedicated to tourism; "P" for part involvement in tourism	Name
A					AGRICULTURE
B					FISHING
C					MINING AND QUARRYING
D					MANUFACTURING
E					ELECTRICITY, GAS AND WATER SUPPLY
F					CONSTRUCTION
45					CONSTRUCTION
		4500-1		T	COMMERCIAL FACILITIES-HOTELS, RETAIL, ETC.
		4500-2		T	RECREATIONAL FACILITIES-SKI AREAS, GOLF COURSES
		4500-3		T	CIVIL WORKS-TRANSPORTATION FACILITIES, TERMINALS, DAMS
		4500-4		T	RESORT RESIDENCES-SECOND HOMES, WEEK-END HOMES
G					WHOLESALE AND RETAIL
50					SALE MAINTENANCE OF MOTOR VEHICLES AND FUELS
	501	5010		P	MOTOR VEHICLES SALES

	502	5020	P	MOTOR VEHICLE MAINTENANCE AND REPAIR
	503	5030	P	SALE OF MOTOR VEHICLE PARTS AND ACCESORIES
	504	5040	P	SALE, MAINTENANCE AND REPAIR OF MOTORCYCLES
	505	5050	P	RETAIL SALE OF MOTOR VEHICLES FUELS
	521			NON-SPECIALIZED RETAIL TRADE
		5211	P	RETAIL FOOD SALES
		5219	P	OTHER NON-SPECIALIZED RETAIL TRADE
	522			RETAIL SPECIALIZED FOOD SALES
		5220	P	RETAIL FOOD SALES
	523			OTHER RETAIL, SPECIALIZED
		5231	P	RETAIL SALES, PHARMACEUTICALS
		5232	P	RETAIL SALE OF TEXTILES, CLOTHING, FOOTWARE AND LEATHER GOODS
		5232-1	P	RETAIL SALE OF TRAVEL ACCESORIES, TEXTILES
		5232-2	P	RETAIL SALE OF TRAVEL ACCESSORIES, CLOTHING
		5232-3	P	RETAIL SALE OF TRAVEL ACCESSORIES, FOOTWARE AND LEATHER GOODS
		5232-4	T	RETAIL SALE OF TRAVEL ACCESSORIES, LUGGAGE
		5232-5	T	OTHER RETAIL SALE OF TRAVEL ACCESSORIES IN SPECIALIZED STORES
		5239	P	OTHER RETAIL SALES IN SPECIALIZED STORES
		5239-1	T	RETAIL SALES, SKIN-DIVING AND SCUBA EQUIPMENT
		5239-2	T	RETAIL SALES, SKY EQUIPMENT
		5239-3	T	RETAIL SALES, CAMPING AND HIKING EQUIPMENT
		5239-4	P	RETAIL SALES, HUNTING AND FISHING EQUIPMENT

		5239-5	P	PHOTOGRAPHIC SALES AND SERVICES
		5239-6	T	RETAIL SALES, GIFT AND SOUVENIR SHOPS
		5239-7	P	RETAIL SALES OF OTHER TRANSPORT VEHICLES
	524	5240	P	RETAIL SALES OF SECOND-HAND GOODS
		5240-1	P	RETAIL SALES, ANTIQUES
	525			RETAIL SALES NOT IN SHOPS
		5252	P	RETAIL SALES IN STALLS AND MARKETS
H				HOTELS AND RESTAURANTS
55				HOTELS AND RESTAURANTS
	551	5510	T	HOTELS, CAMPING SITES AND OTHER COMMERCIAL ACCOMMODATIONS
		5510-1	T	HOTELS AND MOTELS WITH RESTAURANTS
		5510-2	T	HOTELS AND MOTELS WITHOUT RESTAURANTS
		5510-3	T	HOSTELS AND REFUGES
		5510-4	T	CAMPING SITES, INCLUDING CARAVAN SITES
		5510-5	T	HEALTH-ORIENTED ACCOMMODATION
		5510-9	T	OTHER PROVISIONS OF LODGING, N.E.C.
	552	5520	P	RESTAURANTS, BARS AND CANTEENS
		5520-1	P	BARS AND OTHER DRINKING PLACES
		5520-2	P	FULL-SERVICE RESTAURANTS
		5520-3	P	FAST FOOD RESTAURANTS AND CAFETERIAS
		5520-4	P	INSTITUTIONAL FOOD SERVICES, CATERERS
		5520-5	P	FOOD KIOSKS, VENDORS, REFRESHMENT STANDS
		5520-6	P	NIGHT CLUBS AND DINNER THEATERS
I				TRANSPORT, STORAGE AND COMMUNICATIONS
60				LAND TRANSPORT, TRANSPORT VIA PIPELINES
	601	6010	P	TRANSPORT VIA RAILWAYS
		6010-1	T	INTERURBAN RAIL PSGR SERVICES
		6010-2	T	SPECIAL RAIL TOUR SERVICES
	602			OTHER LAND TRANSPORT

		6021	P	OTHER SCHEDULED PSGR LAND SERVICE
		6021-1	T	SCHEDULED INTERURBAN BUSES
		6021-2	T	LONG DISTANCE TOUR BUSES
		6021-3	P	SCHEDULED LOCAL AND METROPOLITAN TRANSIT SERVICES
		6021-4	P	SPECIALIZED SCHEDULED VEHICLES
		6022	P	OTHER NON-SCHEDULED PSGR LAND TRANSPORT
		6022-1	P	TAXIS
		6022-2	P	CHAUFFEURED VEHICLES
		6022-3	T	LOCAL TOUR VEHICLES
		6022-4	P	CHARTER BUSES, EXCURSIONS (SAME-DAY VISITS)
		6022-5	P	MAN OR ANIMAL-DRAWN VEHICLES
61				WATER TRANSPORT
	611	6110	P	SEA AND COASTAL WATER TRANSPORT
		6110-1	T	CRUISE SHIPS
		6110-2	T	SHIP RENTAL W/CREW
	612	6120	P	INLAND WATER TRANSPORT
		6120-1	T	INLAND WATER PSGR TRANSPORT W/ACCOMMODATION
		6120-2	T	INLAND WATER LOCAL TOURS
		6120-3	P	INLAND WATER TAXIS, FERRIES
62				AIR TRANSPORT
	621	6210	T	SCHEDULED AIR TRANSPORT
		6210-1	T	SCHEDULED AIR PSGR TRANSPORT
	622	6220	T	NON-SCHEDULED AIR TRANSPORT
		6220-1	T	NON.SCHEDULED AIR PSGR TRANSPORT
		622-2	T	AIRCRAFT RENTAL CREW
63				SUPPORTING AND AUXILIARY TRANSPORT ACTIVITIES
		6303	P	OTHER SUPPORTING TRANSPORT ACTIVITIES

		6303-1	T	OTHER SUPPORTING LAND TRANSPORT ACTIVITIES
		6303-2	T	OTHER SUPPORTING WATER TRANSPORT ACTIVITIES
		6303-3	T	OTHER SUPPORTING AIR TRANSPORT ACTIVITIES
		6304	T	TRAVEL AGENTS, TOUR OPERATORS AND GUIDES
		6304-1	T	TRAVEL AGENTS
		6304-2	T	TOUR OPERATORS, PACKAGERS AND WHOLESALERS
		6304-3	T	TICKET OFFICES NOT A PART OF TRANSPORT COMPANIES
		6304-4	T	GUIDES
J				FINANCIAL INTERMEDATION
65				FINANCIAL INTERMEDATION NOT INSURANCE/PENSIONS
	651			MONETARY INTERMEDIATION
		6519	P	OTHER MONETARY INTERMEDIATION
		6519-1	P	EXCHANGE OF CURRENCIES
	659			OTHER FINANCIAL INTERMEDIATION
		6592	P	OTHER CREDIT GRANTING
	660			INSURANCE AND PENSION FUNDING
		6601	P	LIFE INSURANCE
		6601-1	T	TRAVEL INSURANCE
		6603	P	NON-LIFE INSURANCE
K				REAL ESTATE, RENTING AND BUSINESS ACTIVITIES
70				REAL ESTATE ACTIVITIES
	701			REAL ESTATE ACTIVITIES WITH OWN OR LEASED PROPERTIES
		7010	P	BUYING OR SELLING OF OWN OR LEASED PROPERTY

		7010-1	T	BUYING OR SELLING OF OWN OR LEASED TOURISM PROPERTY
	702			REAL ESTATE ACTIVITIES ON A FEE OR CONTRACT BASIS
		7020	P	LETTING OF OWN OR LEASED PROPERTY
		7020-1	T	LETTING OF OWN OR LEASED TOURISM PROPERTY
	703			REAL ESTATE AGENCIES
		7030	P	REAL ESTATE AGENCIES
		7030-1	T	REAL ESTATE AGENCIES FOR TOURISM PROPERTIES
		7030-2	T	TOURISM PROPERTY MANAGEMENT
71				RENTING OF MACHINERY AND EQUIPMENT W/O OPERATORS
	711			RENTING OF TRANSPORT EQUIPMENT
		7111	P	RENTING OF LAND TRANSPORT EQUIPMENT
		7111-1	T	AUTOMOBILE RENTAL
		7111-2	T	MOTORCYCLE RENTAL
		711-3	T	RECREATIONAL VEHICLE, CAMPER CARAVAN REAL
		7113	P	RENTING OF AIR TRANSPORT EQUIPMENT
		7113-1	T	RENTING OF AIR TRANSPORT EQUIPMENT FOR PERSONAL USE
	713	7130	P	RENTING OF PERSONAL AND HOUSEHOLD GOODS
		7130-1	T	RENTAL OF WATER CRAFT AND RELATED FACILITIES
		7130-2	P	RENTAL OF HORSES
		7130-3	T	RENTAL OF BICYCLES
		7130-4	T	RENTAL OF SKI EQUIPMENT
		7130-5	T	RENTAL OF TOURIST-RELATED GOODS, NOT ELSEWHERE CLASSIFIED
73				RESEARCH AND DEVELOPMENT

	732	7320	P	R&D IN SOCIAL SCIENCES
		7320-1	T	TOURISM RESEARCH
74				OTHER BUSINESS ACTIVITIES
	741			LEGAL, ACCOUNTING, BOOK-KEEPING & AUDITING, TAX CONSULTANCY, MARKET RESEARCH POLLING, BUSINESS & MANAGEMENT CONSULTANCY
		7413	P	MARKET RESEARCH AND POLLING
		7413-1	T	TOURISM MARKET RESEARCH
		7414	P	BUSINESS AND MANAGEMENT CONSULTANCY ACTIVITIES
		7414-1	T	TOURISM BUSINESS AND MANAGEMENT CONSULTACY SERVICES
	742			ARCHITECTURAL, ENGRING & OTH TECHNICAL ACTIVITIES
		7421	P	ARCHITECTURE AND ENGINEERING
		7421-1	T	TOURISM ARCHITECTURE AND ENGINEERING
	743	7430	P	ADVERTISING
		7430-1	T	TOURISM ADVERTISING
	749			BUSINESS ACTIVITIES, N.E.C.
		7494	P	PHOTOGRAPHIC ACTIVITIES
		7494-1	T	PASSPORT PHOTOGRAPHERS
		7499	P	OTHER BUSINESS ACTIVITIES, N.E.C.
		7499	P	TRANSLATION SERVICES
L				PUBLIC ADMINISTRATION
75				PUBLIC ADMINISTRATION & DEFENCE; COMPULSORY SOCIAL SECURITY
	751			ADMINISTRATION OF THE STATE
		7511	P	GENERAL PUBLIC PUBLIC SERVICE ACTIVITIES
		7511-1	P	CUSTOMS ADMINISTRATION
		7511-2	P	TAXATION, FEES, FINES, TARIFFS
		7511-3	T	INFORMATION BUREAUS

		7512	P	ACTIVITIES OF SERVICE AGENCIES
		7512-1	P	PROVISION OF TRANSPORT-RELATED FUNCTIONS
		7512-2	P	PROVISION OF CULTURAL, RECREATIONAL SERVICES
		7513	P	BUSINESS REGULATION
		7513-1	T	TOURISM ADMINISTRATION
		7513-2	T	REGULATION OF PRIVATE TRANSPORT ACTIVITIES
		7513-3	P	FISHING, HUNTING REGULATION
		7513-4	P	REGIONAL AND ECONOMIC DEVELOPMENT ADMINISTRATION
		7513-5	P	PROVISION OF TRANSPORT INFRASTRUCTURE
	752			PROVISION OF SERVICES TO THE COMMUNITY
		7521	P	FOREIGN AFFAIRS
		7521-1	T	VISA ISSUANCE, CONSULAR AFFAIS
		7523	P	PUBLIC ORDER AND SAFETY
		7523-1	T	SPECIAL POLICE, BORDER GUARDS, AIRPORT SECURITY
M				EDUCATION
80				EDUCATION
	803	8030	P	HIGHER EDUCATION
		8030-1	T	HOTEL SCHOOLS
		8030-2	T	TOURISM EDUCATION PROGRAMMES
		8030-3	T	RECREATION AND PARK SCHOOLS
		8030-4	T	TOURISM-RELATED EDUCATION, N.E.C.
	809	8090	P	ADULT EDUCATION
		8090-1	P	DRIVING INSTRUCTION
		8090-2	T	SKI INSTRUCTION
		8090-3	P	SWIMMING, SCUBA INSTRUCTION
		8090-4	P	FLYING INSTRUCTION
		8090-5	P	BOATING INSTRUCTION

		8090-9	T	TOURIST INSTRUCTION, N.E.C.
N				HEALTH AND SOCIAL SERVICES
O				OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICES
91				ACTIVITIES OF MEMBERSHIP ORGANIZATIONS N.E.C.
	911			ACTIVITIES OF BUSINESS, EMPLOYERS, AND PROFFESIONAL ORGANIZATIONS
		9111	P	ACTIVITIES OF BUSINESS AND EMPLOYER ORGS
		9111-1	T	VISITOR AND CONVENTION BUREAUS
		9112	P	ACTIVITIES OF PROFESSIONAL ORGANIZATIONS
		9112-1	T	ACTIVITIES OF TOURISM-RELATED PROFESSIONAL ORGANIZATIONS
	912	9120	P	ACTIVITIES OF TRADE UNIONS
		9120-1	T	ACTIVITIES OF TOURISM INDUSTRY-RELATED TRADE UNIONS
	919			ACTIVITIES OF OTHER MEMBERSHIP ORGANIZATIONS
		9199	P	ACTIVITIES OF OTHER MEMBERSHIP ORGANIZATIONS
		9199-1	T	TRAVEL CLUBS
		9199-2	T	TRAVELERS AID SOCIETIES
92				RECREATIONAL, CULTURAL AND SPORTING ACTIVITIES
	921			MOTION PICTURES, RADIO, TV AND OTHER ENTERTAINMENT
		9212	P	MOTION PICTURE PROJECTION
		9213	P	RADIO AND TELEVISION ACTIVITIES
		9214	P	DRAMATIC ARTS, MUSIC AND OTHER ART ACTIVITIES
		9215	P	OPERATION OF TICKET AGENCIES
		9219	P	OTHER ENTERTAINMENT ACTIVITIES, N.E.C.
		9219-1	P	AMUSEMENT PARKS

		9219-2	P	OTHER ENTERTAINMENT ACTIVITIES, N.E.C.
	923			LIBRARIES, ARCHIVES, MUSEUMS AND OTHER CULTURAL ACTIVITIES
		9231	P	LIBRARY AND ARCHIVE ACTIVITIES
		9232	P	MUSEUM ACTIVITIES AND PRESERVATION OF HISTORIC SITES AND BUILDINGS
		9232-1	P	MUSEUMS OF ALL KINDS AND SUBJECTS
		9232-2	P	HISTORICAL SITES AND BUILDINGS
		9233	P	BOTANICAL AND ZOOLOGICAL GARDENS AND NATURE RESERVE ACTIVITIES
		9233-1	P	BOTANICAL AND ZOOLOGICAL GARDENS
		9233-2	P	NATURE AND WILDLIFE PRESERVES
	924			SPORTING AND OTHER RECREATIONAL ACTIVITIES
		9241	P	SPORTING ACTIVITIES
		9241-1	P	PHYSICAL FITNESS FACILITIES
		9241-2	P	OPERATION OF SPORTING FACILITIES
		9241-3	P	ACTIVITIES RELATED TO RECREATIONAL HUNTING
		9241-4	P	OTHER SPORTING ACTIVITIES, N.E.C.
		9249	P	OTHER RECREATIONAL ACTIVITIES
		9249-1	P	OPERATIONS OF RECREATION PARKS AND BEACHES
		9249-2	P	ACTIVITIES RELATED TO RECREATIONAL FISHING
		9249-3	P	GAMBLING AND BETTING OPERATIONS, CASINOS
		9249-4	P	OPERATION OF RECREATIONAL FAIRS AND SHOWS
		9249-5	P	OPERATION OF SKI LIFTS
93	930			OTHER SERVICE ACTIVITIES
		9309	P	OTHER SERVICE ACTIVITIES, N.E.C.
		9309-1	P	PORTERS, VALET PARKING SERVICES,

				DOORMEN
P				PRIVATE HOUSEHOLDS WITH EMPLOYED PERSONS
Q				EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES
99	990	9900	P	EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES
		9901-1	T	INTERNATIONAL TOURISM BODIES

Annex 2 – List of tourism-specific products

List of tourism-specific products

(related to visitor consumption)

CPC/code	Title
63110.0	Hotel and motel lodging services
63191.0	Holiday centre and holiday home services
63192.0	Letting services of furnished accommodation
63193.0	Youth hostel services
63194.0	Children's training and holiday camp services
63195.0	Camping and caravanning site services
63199.1	Sleeping-car and similar services in other transport media; hall residence of students
63210.0	Meal-serving services with full restaurant services
63220.0	Meal-serving services in self-service facilities
63290.0	Other food-serving services
63300.0	Beverage-serving services for consumption on the premises
64111.1	Scheduled rail services of passengers
64111.2	Non-scheduled rail services of passengers
64112.0	Urban and suburban railway transport services of passengers
64211.0	Urban and suburban scheduled road transport services of passengers
64212.0	Urban and suburban special purpose scheduled road transport services of passengers
64213.0	Interurban scheduled road transport services of passengers
64214.0	Interurban special purpose scheduled road transport services of passengers
64219.1	Scheduled ski-hills services
64219.2	Teleferics-funicular services
64221.0	Taxi services
64222.0	Rental services of passenger cars with operator

64223.0	Rental services of buses and coaches with operator
64224.0	Road transport services of passengers by man- or animal-drawn vehicles
65111.0	Coastal and transoceanic water transport services of passengers by ferry
65119.1	Other coastal and transoceanic scheduled water transport services of passengers
65119.2	Other coastal and transoceanic non-scheduled water transport services of passengers
65119.3	Cruise ship services
65119.4	Passenger services on freight vessels
65130.1	Rental services of passenger vessel for coastal and transoceanic water transport with operator
65140.0	Towing and pushing services on coastal and transoceanic waters
65211.0	Inland water transport services of passengers by ferries
65219.1	Scheduled inland water transport services of passengers
65219.2	Sightseeing excursion services
65219.3	Cruise services
65230.0	Rental services of inland water passenger vessels with operator
65240.0	Towing and pushing services on inland waters
66110.0	Scheduled air transport services of passengers
66120.1	Non-scheduled air transport services of passengers
66120.2	Sightseeing services, aircraft or helicopter
66400.0	Rental services of aircraft with operator
67300.0	Navigational aid services
67400.0	Supporting services for railway transport
67510.0	Bus station services
67520.1	Highway operation services
67520.2	Bridge and tunnel operation services
67530.1	Parking of passenger terminal transport
67590.0	Other supporting services for road transport
67610.0	Port and waterway services (excluding cargo handling)
67630.0	Vessel salvage and refloating services

67690.1	Vessel fuelling services
67690.2	Maintenance and upkeep services to private recreation passenger services
67710.0	Airport operation services (excluding cargo handling)
67790.0	Other supporting services for air or space transport
67811.0	Travel agency services
67812.0	Tour operator services
67813.0	Tourist information services
67820.0	Tourist guide services
71100.1	Travel card services
71100.2	Travel loan services
71100.3	Vehicle loan services
71311.1	Travel life insurance services
71320.1	Travel accident insurance services
71320.2	Travel health insurance services
71331.1	Private motor vehicle insurance services
71334.1	Passenger's aircraft of own use insurance services
71334.2	Passenger's vessel of own use insurance services
71339.1	Travel insurance services
71552.0	Foreign exchange services
72211.1	Support services to time-share activities
73111.0	Leasing or rental services concerning cars and light vans without operator
73114.1	Leasing or rental services concerning campers/motor homes without operator
73115.1	Leasing or rental services concerning passenger vessels without operator
73116.1	Leasing or rental services concerning passenger aircraft without operator
73240.1	Non-motorized land transport equipment leasing or rental services
73240.2	Winter sports equipment leasing or rental services
73240.3	Non-motorized air transport equipment leasing or rental services
73240.4	Water sports and beach equipment leasing or rental services
73240.5	Camping equipment leasing or rental services

73240.6	Saddle horse leasing or rental services
73290.1	Photographic camera rental services
83811.1	Passport/visa photo services
83820.0	Photography processing services
83910.0	Translation and interpretation services
84510.0	Library services
84520.0	Archive services
85970.0	Trade fair and exhibition organization services
87141.0	Maintenance and repair services of motor vehicles
87142.0	Maintenance and repair services of motorcycles and snowmobiles
87143.0	Maintenance and repair services of trailers, semi-trailers and other motor vehicles not elsewhere classified
87149.1	Maintenance and repair services of leisure vessels of own use
87149.2	Maintenance and repair services of leisure aircraft of own use
87290.1	Maintenance and repair services of other goods not elsewhere classified
91131.1	Fishing license services
91131.2	Hunting license services
91210.1	Passport issuing services
91210.2	Visa issuing services
92900.1	Language instruction services
92900.2	Operating license training services
96151.0	Motion picture projection services
96230.0	Performing arts facility operation services
96310.0	Services of performing artists
96411.0	Museum services except for historical sites and buildings
96412.0	Preservation services of historical sites and buildings
96421.0	Botanical and zoological garden services
96422.0	Nature reserve services including wildlife preservation services
96510.0	Sports and recreational sports event promotion and organization services

96520.1	Golf course services
96520.2	Ski fields operation services
96520.3	Race circuit
96520.4	Services of riding academies
96520.5	Recreation park and beach services
96590.1	Risk sport and adventure
96620.1	Sports school services
96620.2	Guide services (mountain, hunting and fishing)
96910.1	Theme park services
96910.2	Amusement park services
96910.3	Fair and carnival services
96920.1	Casino services
96920.2	Slot machine services
97230.1	Fitness centre services
97230.2	Sauna/steam bath services
97230.3	Massage services
97230.4	Spa services
97910.0	Escort services
99000.0	Services provided by extraterritorial organisations and bodies
62121.1	Non-specialized store retail trade services of fruit and vegetables
62122.1	Non-specialized store retail trade services of dairy products, eggs and edible oils and fats
62123.1	Non-specialized store retail trade services of meat, poultry and game
62124.1	Non-specialized store retail trade services of fish and other seafood
62125.1	Non-specialized store retail trade services of sugar confectionery and bakery products
62126.1	Non-specialized store retail trade services of beverages
62128.1	Non-specialized store retail trade services of tobacco products
62132.1	Non-specialized store retail trade services of tents and camping goods
62133.1	Non-specialized store retail trade services of articles of clothing, articles of fur and clothing accessories

62134.1	Non-specialized store retail trade services of footwear
62142.1	Non-specialized store retail trade services of radio and television equipment, musical instruments and records, music scores and tapes
62151.1	Non-specialized store retail trade services of books, newspapers, magazines and stationery
62152.1	Non-specialized store retail trade services of photographic, optical and precision equipment
62154.1	Non-specialized store retail trade services of watches, clocks and jewellery
62155.1	Non-specialized store retail trade services of sports goods, including bicycles
62156.1	Non-specialized store retail trade services of leather goods and travel accessories
62159.1	Non-specialized store retail trade services of souvenirs
62175.1	Non-specialized store retail trade services of perfumery articles, cosmetic articles and toilet soaps
62181.1	Non-specialized store retail trade services of motor vehicles, motorcycles, snowmobiles and related parts and accessories
62182.1	Non-specialized store retail trade services of other transport equipment, except bicycles
62184.1	Non-specialized store retail trade services of computers and packaged software
62191.1	Non-specialized store retail trade services of solid, liquid and gaseous fuels and related products
62221.1	Specialized store retail trade services of fruit and vegetables
62222.1	Specialized store retail trade services of dairy products, eggs and edible oils and fats
62223.1	Specialized store retail trade services of meat, poultry and game
62224.1	Specialized store retail trade services of fish and other seafood
62225.1	Specialized store retail trade services of sugar confectionery and bakery products
62226.1	Specialized store retail trade services of beverages
62228.1	Specialized store retail trade services of tobacco products
62232.1	Specialized store retail trade services of tents and camping goods
62233.1	Specialized store retail trade services of articles of clothing, articles of fur and clothing accessories
62234.1	Specialized store retail trade services of footwear
62242.1	Specialized store retail trade services of radio and television equipment, musical instruments and records, music scores and tapes

62251.1	Specialized store retail trade services of books, newspapers, magazines and stationery
62252.1	Specialized store retail trade services of photographic, optical and precision equipment
62254.1	Specialized store retail trade services of watches, clocks and jewellery
62255.1	Specialized store retail trade services of sports goods, including bicycles
62256.1	Specialized store retail trade services of leather goods and travel accessories
62259.1	Specialized store retail trade services of souvenirs
62275.1	Specialized store retail trade services of perfumery articles, cosmetic articles and toilet soaps
62281.1	Specialized store retail trade services of motor vehicles, motorcycles, snowmobiles and related parts and accessories
62282.1	Specialized store retail trade services of other transport equipment, except bicycles
62284.1	Specialized store retail trade services of computers and packaged software
62291.1	Specialized store retail trade services of solid, liquid and gaseous fuels and related products