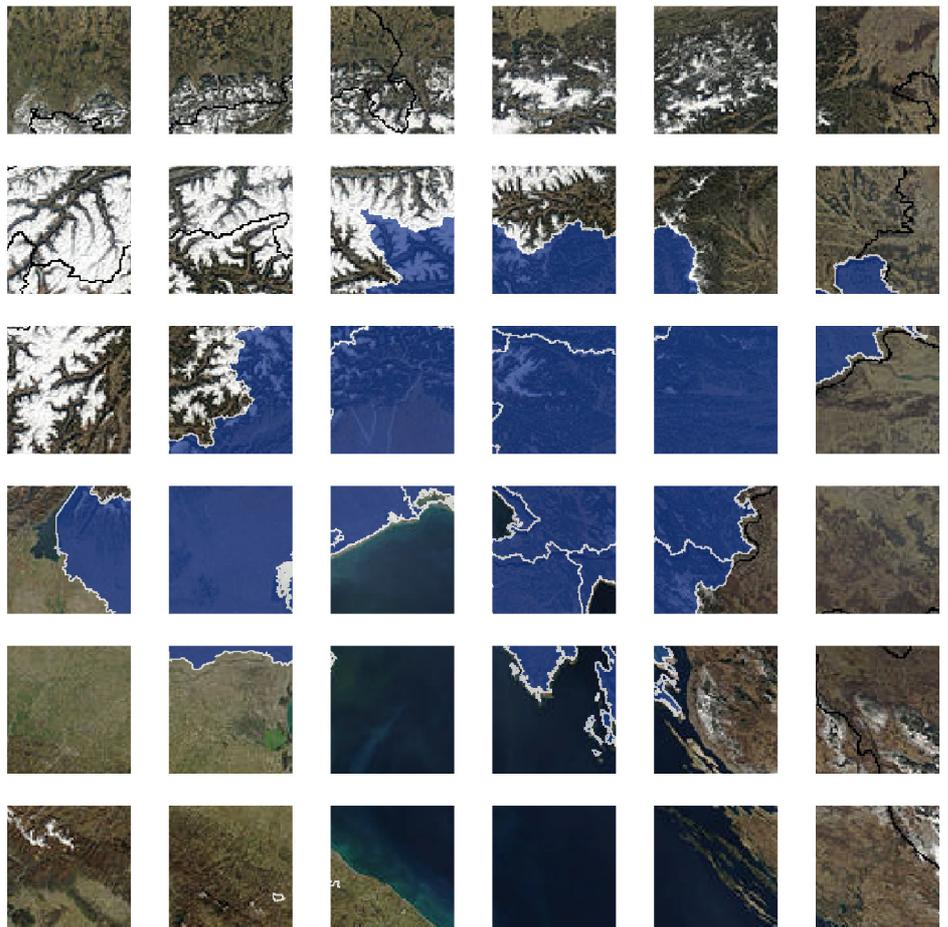




BENCHMARKING REPORT FOR THE VILLA MANIN EUROREGION

International Regional Benchmarking Study

2009



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Summary

The benchmarking study of the cross-border area called the Villa Manin Euroregion reveals a level of economic development that corresponds to the European average; GDP and productivity are rising at a lower rate, while population and employment growth is high. Among the factors that can affect economic performance, the degree of market regulation is one of the features constituting the attractiveness of the various parts of the Euroregion, while innovative capacity and accessibility should be further enhanced.

The object of study in this international benchmarking report is the **Villa Manin Euroregion**, i.e. the cross-border area of Italy, Austria, Slovenia and Croatia, composed of Veneto, Friuli-Venezia Giulia, Carinthia, Slovenia and the Croatian Counties of Istria and Primorsko-Goranska. The geopolitical position of this area underwent a fundamental transformation when Eastern Europe opened up: from an outlying area (seen from both west and east), it became a crossroads between the west and the east of the new Europe.

The **economic profile** of the Villa Manin Euroregion shows that its potential is similar to the European average: the level of prosperity (GDP per capita) is practically the same, while labour productivity is slightly lower. The Euroregion's employment rate, however, is higher than Europe. These results are strongly influenced by the Italian regions, which represent three-quarters of its economy.

The **social profile** of the Euroregion discloses on one hand a population that is ageing at a higher rate than the European average (probably in the Italian regions above all), and on the other hand a lower unemployment rate than the average (with a pronounced drop in the number of jobless in the Croatian counties from 2000 onwards).

As regards **economic performance** during the period from 2000 to 2008, the Villa Manin Euroregion does better than the European average in terms of population and employment growth, while it is not as well off in terms of the growth of GDP and productivity. Its economic performance is markedly affected by the trends of its Italian regions, whose population increased substantially between 2000 and 2008 but recorded below-average GDP growth: in their case, improved GDP was an effect of the increase in employment, while productivity decreased. On the contrary, Slovenia and the Croatian counties showed a strong tendency to make up lost ground and reach the Western countries' levels of prosperity and productivity, even if their weight in the Euroregion is lighter.

The analysis of **economic sectors** shows that the proportion of traditional industries, especially producers of consumer and capital goods, is greater than the European average, while other higher technology industrial segments are less represented. The disadvantages involved in the greater degree of specialisation in traditional industry (see the SWOT analysis) are low productivity and extreme exposure to economies with lower labour costs. The services sector produces a smaller share of GDP than the European average because the number of government and public services offices is low. Urban services, such as the financial sector and

business services, which have high added value, are also slightly less represented than the average, but play a fundamental part in advanced economies.

The striking point in the survey of the **tourism** economy, which is of great interest to the area studied, is robust added value growth in the hotel and restaurant segment in Istria between 2000 and 2008 in spite of a fall in the number of visitor nights. This apparently contradictory development reveals a transformation in the structure and quality of hotel supply in the direction of market segments with higher added value (thus raising added value per night and per bed). The analysis also shows that the area with the greatest competitive advantage in the tourism economy is Slovenia. In this country, while tourism still plays a secondary role in the economy, its tourist destinations are increasingly in demand.

To sum up the results of the **economic attractiveness** factor:

- Apart from Veneto, the Villa Manin Euroregion areas are less accessible than the European average because intercontinental airports are further away. The situation is changing, however, and there are various large-scale projects to speed up connections between the Euroregion and the rest of Europe.
- The Euroregion's innovative capacity is lower than the European average both in terms of expenditure on R&D and the availability of highly qualified human resources. Although some areas are seen to be improving, renewed efforts are needed to enhance the Euroregion's innovative capacity, which is fundamental in order to increase productivity.
- During the past few years, market regulation, both with regard to products and labour, in the countries that make up Villa Manin has been more liberalised than the Western Europe average, but there is still room for further reforms, especially in the services sector, which also has its importance in view of optimising the cross-border market.

The table below sums up the analysis of the strengths and weaknesses of the Euroregion and the opportunities and threats that it faces (SWOT analysis).

Main points in SWOT analysis:

Strengths (S)	Weaknesses (W)
Level of prosperity equal to European average	Productivity disadvantage, tending to worsen
Strong increase in population and employment	Weak GDP growth
Robust expansion of Slovene and Croatian economies (with high competitiveness of tourism economy)	Urban services (with potential for growth) under-represented
Labour market regulation more liberal than in the European average	Growth problems in the Italian regions, which account for three-quarters of the Euroregion's economy
Geographic position in the centre of the new Europe	Weakness in innovative capacity indicators
Opportunities (O)	Risks, Threats (T)
Better connections and coordination of transport infrastructures within the Euroregion itself and towards the rest of Europe	Great importance of traditional industry, which is very exposed to competition from low labour cost economies and the present economic crisis
Convergence of level of prosperity within the Euroregion (which is tending towards a more even picture)	Marginal role of the new and old economy, which tend to have high productivity
Cross-border cooperation (institutional and economic, as in tourism)	Loss of competitiveness owing to slow rise in productivity

1 Introduction

1.1 What is the reason for this study?

This report is a product from the BAK Basel Economics project, on commission for the Veneto Region (in particular, the Cross-Border Cooperation Unit), regarding the supply of a database and benchmarking analysis of the Villa Manin Euroregion.

Why is there a "Villa Manin" Euroregion?

The cross-border area of Italy, Austria, Slovenia and Croatia, a crossroads of the new Europe, embraces countries with close historical, cultural and economic links. The objective of collaboration in this area is to enhance growth and economic, social and cultural cohesion among adjacent areas. The formation of the Villa Manin Euroregion is one of the vitally important projects carried forward by the Veneto Region in the framework of the implementation of Community policies and cross-border cooperation. With the signature of the trilateral Protocol of Klagenfurt (in Carinthia, Austria) on 11 January 2007, the three north-eastern border Regions, Veneto, Friuli- Venezia Giulia and Carinthia, formally sanctioned their commitment to enhance cross-border cooperation and extend it to the neighbouring countries of Slovenia and Croatia (the Counties of Istria and Primorsko-Goranska).

The Protocol envisages the creation of a new cross-border body, in fact the Villa Manin Euroregion (from the name of the place where the founding meeting among the political representatives took place) as the main instrument for the strengthening of this collaboration. The members of this cross-border body would be national and sub-national entities that can collaborate beyond their respective frontiers, relying on the powers granted to the ETCG (European Territorial Cooperation Group). Various cross-border collaboration projects are under way, utilising financing from the Objective 3 Territorial Cooperation Community Programmes, such as Interreg IV, Italy-Austria and Central Europe.

In order to strengthen collaboration in this area, learn the socio-economic and territorial data of the various member partners and work out growth strategies and projects that are compatible with the different potentials of each, it is indispensable to be acquainted with the data concerning all the actors involved. This can be achieved by a statistical and benchmarking analysis: an analysis of this kind has not been available until now owing to the different typologies and the large number of data to be found in the various areas concerned. In fact the data to hand and those that can be obtained in future must be conformed to agreed standards and must be comparable¹.

Which are the themes involved?

There are many fields of interest involving Veneto in this area of cooperation. In the economic sphere they vary from classic sectors such as agriculture and manufacturing to fundamental services in this Euroregion such as tourism and transport. Apart from these sectors, the field of interest extends to the analysis of framework conditions that are important for socio-economic

¹ Text partially taken from Veneto Regional Government Resolution 3326 of 4 November 2008.

operators: transport infrastructures, cultural products, training levels, scientific research and the universities and the social and healthcare sector.

Which are the purposes of the project and how is it to proceed?

The project has three main objectives:

1. the creation and supply of a socio-economic database regarding the Villa Manin Euroregion that allows the data from all its territorial bodies to be compared;
2. better reciprocal knowledge to ease the way for collaboration in cross-border issues;
3. the preparation of a Benchmarking Report that analyses the structure and socio-economic features of the Euroregion and its national regions, comparing them with other similar regions.

The project proceeds in five stages:

1. collection of socio-economic data (above all available data regarding Croatia);
2. creation of the database with benchmark indicators;
3. interim presentation of the progress of work and the database, with access to the database on internet;
4. preparation of a Benchmarking Report on the Villa Manin Euroregion and some benchmark areas;
5. final presentation of the results and of the Report.

The project does not end with the presentation of the Report. In future the data produced regarding the Euroregion will be included in the BAK Basel Economics International Benchmarking Database and will be updated annually.

Which themes are dealt with in the database and Benchmarking Report?

The database and this report satisfy the interests of the Veneto Region and all the members of the Euroregion, analysing the performance of various economic sectors and three spheres characterising the framework conditions in which the socio-economic actors operate. Before entering into the details of the sectors and of framework conditions, Chapter 2 describes the socio-economic profile of the Euroregion, its member countries and comparable regions; and Chapter 3 analyses their overall respective economic performance in two periods during the recent past (1995-2000 and 2000-2008).

In Chapter 4, sector analysis considers the three classic economic sectors (primary, secondary and tertiary), the five BAKBASEL key sectors, some big industrial categories (manufacture of consumer and capital goods) and the services of greatest interest to the Euroregion (trade and transport). Chapter 5 is a special analysis of the tourism economy.

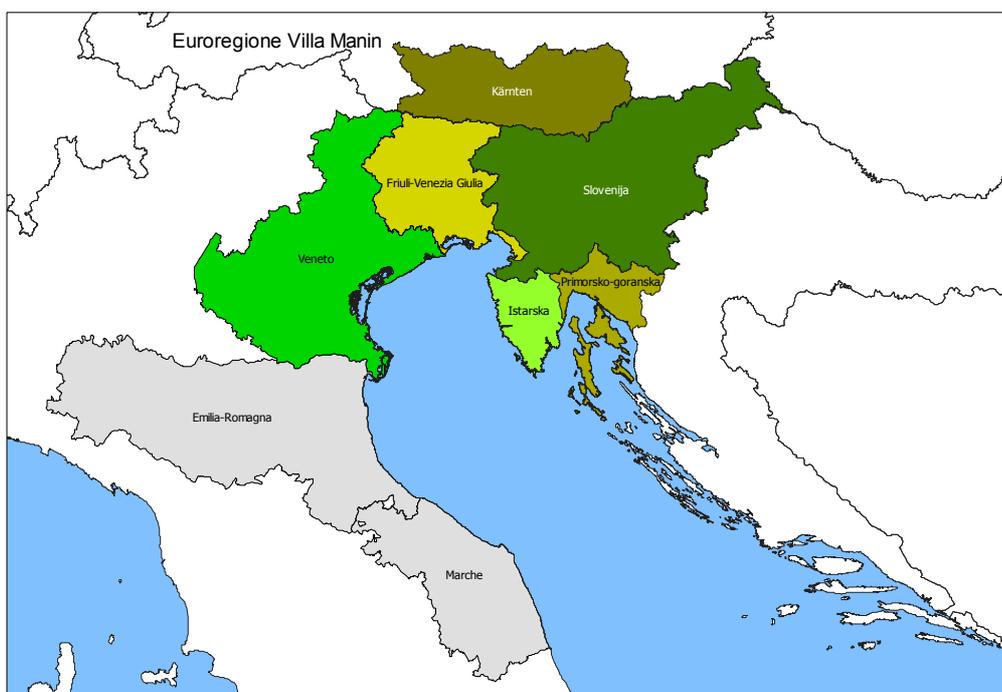
Chapter 6 deals with the following aspects of the framework conditions that affect economic performance: accessibility and transport infrastructures, innovative capacity (R&D expenditure, quality of university research, education level of persons in employment) and the degree to which markets are regulated (products and labour).

1.2 Geographic position

The Villa Manin Euroregion is in the heart of the new Europe, constituting a crossroads on the east-west traffic axis (from Kiev-Budapest-Ljubljana and on to Milan-Marseilles-Madrid-Lisbon) and the north-south axis (from Danzig-Vienna-Klagenfurt and on to Bologna-Southern Italy). The traffic corridors that are discussed at European level are especially important from this point of view: the Europe V Corridor and the Baltic-Adriatic Corridor (see Chapter 5.1 on accessibility).

The territorial organisations making up the Villa Manin Euroregion are in four different countries; they are the Veneto and Friuli-Venezia Giulia Regions in Italy, the Carinthia Bundesland in Austria, Slovenia (State) and the Counties of Istria and Primorsko-Goranska in Croatia.

Fig. 1-1 Villa Manin Euroregion, its components and benchmark regions



The Villa Manin Euroregion is composed of the Italian Veneto and Friuli-Venezia Giulia Regions, the Bundesland of Carinthia in Austria, the State of Slovenia and the Croatian Counties of Istria and Primorsko-Goranska.

Of particular interest in this combination of lands making up the Euroregion is the history of unions, collaborations and wars that have been a feature of the area for centuries, in addition to the fact that for 40 years they belonged to two fundamentally diverse political and economic systems. Slovenia and Croatia began a process of political and economic rapprochement to Western Europe after their secession from the Republic of Yugoslavia (they were the first States recognised as independent in 1991) without even waiting for the end of the war against Serbia.

Slovenia has been a member of the European Union since 2004 and has adopted the euro as its national currency. The process is longer for Croatia: negotiations to join the EU are still in progress and it is not clear when an agreement will be reached.

The report compares the Euroregion as a whole with the lands that comprise it, also extending the analysis to the Italian Emilia-Romagna and Marche Regions, lying below the Euroregion to the south along the Italian Adriatic coast. The comparison also includes Italian and European averages in order to have a benchmark outside the area studied.

2 Economic and social profile

2.1 Economic profile

Table 2-1 shows that in 2008 the Villa Manin Euroregion's gross domestic product (GDP) was USD 362.5 billion. The Veneto economy has a 60% share of the Euroregion's GDP, while Friuli-Venezia Giulia and Slovenia produce 15% each. The Carinthian economy, which only reaches 7% of the Euroregion's GDP, plays a less important economic role and, finally, the Croatian counties have only a marginal weight (they accounted for 2.7% of the Euroregion's GDP in 2008).

Tab. 2-1 Nominal GDP and number of persons in employment in 2008

	Nominal GDP	As % of Villa Manin	Persons in employment	As % of Villa Manin
Veneto	217.767,1	60,1%	2.323,6	53,3%
Friuli-Venezia Giulia	53.446,7	14,8%	586,7	13,5%
Carinthia	25.457,3	7,0%	263,5	6,1%
Slovenia	55.863,2	15,4%	954,0	21,9%
Istria	4.118,9	1,1%	96,9	2,2%
Primorsko-Goranska	5.840,6	1,6%	130,6	3,0%
Euroregion Villa Manin	362.494,1	100,0%	4.355,3	100,0%
Emilia-Romagna	203.554,8		2.169,4	
Marche	61.008,1		734,3	
ITALY	2.312.455,1		25.262,9	
EU20	17.917.542,6		202.012,4	

Nominal GDP in millions of USD at current prices and exchange rates. Persons in employment in thousands. In the whole report EU20 is defined as EU15 + Poland, Czech Republic, Slovakia, Slovenia, Hungary. Source: BAKBASEL.

The relative positions of the different Euroregion areas change in terms of persons in employment. With 2.3 million employed, Veneto accounts for 53% of employment in the Euroregion, as against 60% of GDP, while the importance of Slovenia increases, with 22% of the employed. Friuli-Venezia Giulia's share of jobs, on the other hand, remains almost unchanged, as it has 14% of the employed. Of the 4.4 million total number of persons in employment, 6% work in Carinthia and over 5% in the Croatian Counties of Istria and Primorsko-Goranska.

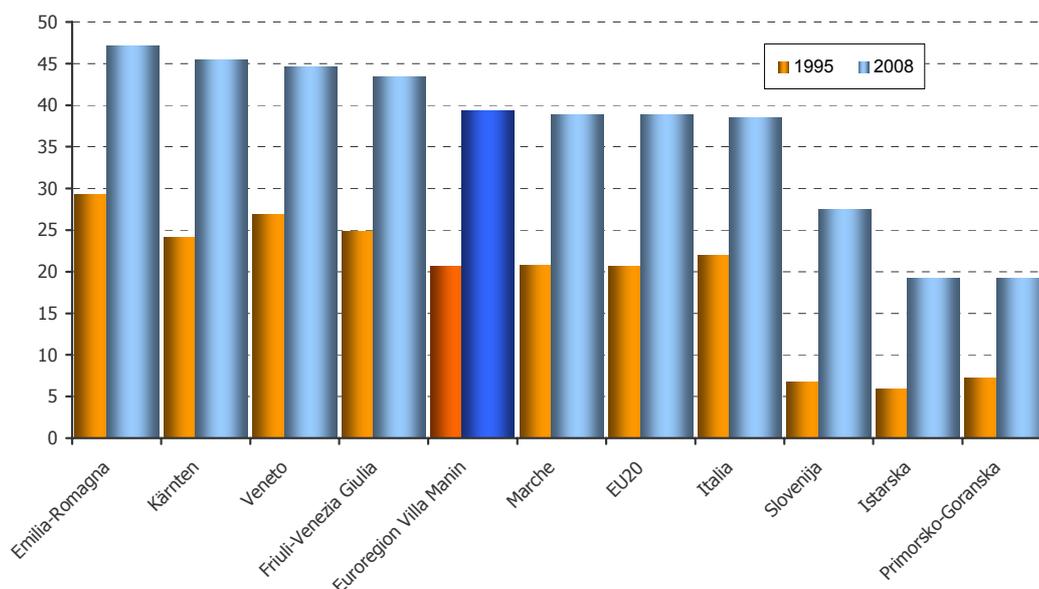
It is seen, therefore, that Slovenia and the Croatian counties have production processes that definitely require a higher labour force than the Italian regions (see the labour productivity comparison in Chapter 2.1.3). The intensity of the utilisation of labour in the production process also depends on economic structure, which is analysed in Chapter 4.

The Italian regions chosen for benchmarking, Emilia-Romagna and Marche, are similar in macroeconomic dimensions to Veneto and Friuli-Venezia Giulia.

2.1.1 Economic strength

Economic strength, or wealth, is one of the fundamental items of information in outlining the economic profile of a region. It indicates the degree of development and the potential of an economy. GDP per capita is the classic indicator of economic strength.

Fig. 2-1 Gross Domestic Product per Capita



Note: in thousands of USD (at current prices and rates). This graph only serves for a comparison between geographic areas in a year (1995 and 2008), and cannot be used for the variation between the two years. Source: BAKBASEL.

The Villa Manin Euroregion is average in terms of wealth: its GDP per capita, about USD 39,000 in 2008, is more or less equivalent to the mean GDP per capita in Europe (EU20) and in Italy. The distribution of wealth within the Euroregion, however, is particularly heterogeneous. On one hand Carinthia, Veneto and Friuli-Venezia Giulia have a GDP per capita of about USD 45,000, while on the other hand Slovenia and the Croatian counties do not reach USD 20,000, let alone USD 30,000. The region that emerges as the richest from the benchmarking is Emilia-Romagna. The placing in 1995 shows that Carinthia and Slovenia have improved their GDP per capita to a greater extent than the other regions and the Euroregion average.

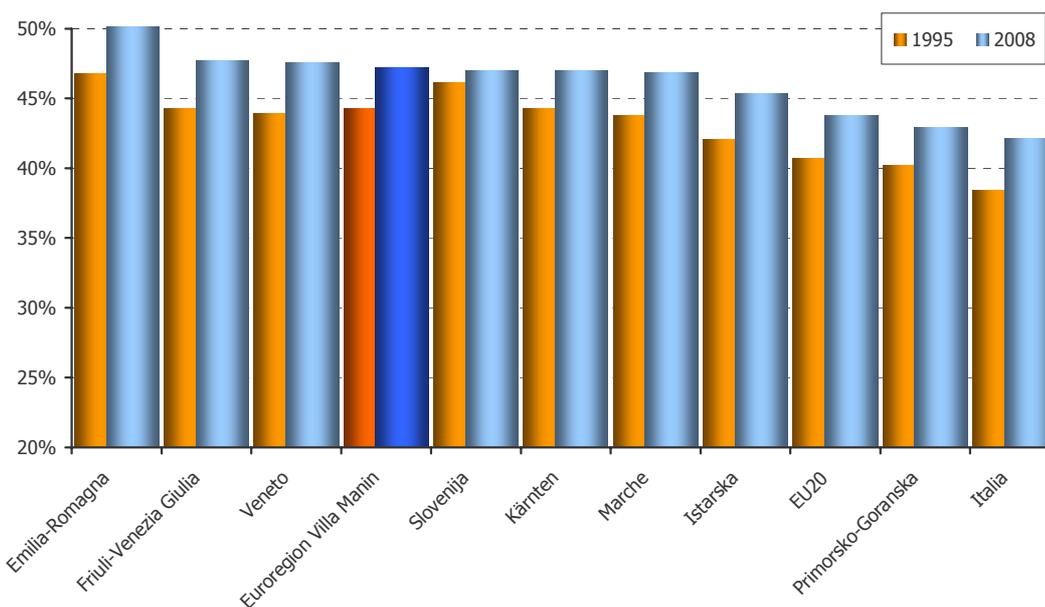
Definition

Gross domestic product (**GDP**) is calculated at market prices and is the total market value of the goods and services produced by a region. In this sense, it is equivalent to the gross added value of the various segments of economic activity, plus tax and less subsidies on products. Added value, simply speaking, is the difference between production value and the costs of production and intermediaries' services. In the BAKBASEL database, added value is at base prices (as defined by Eurostat in the regional accounts system). GDP and added value are available at current prices, at 2000 prices and converted into PPP (parity of purchasing power). As the PPPs utilised by BAKBASEL, which are specific for each segment of activity, are calculated in USD, in the interests of consistency current prices and 2000 prices are also expressed in USD.

2.1.2 Employment

The economic success of a region is not only measured in terms of GDP but also on the basis of the supply of jobs for the population, with the objective of making the best possible use of available labour, for example female labour. A high employment rate is not only a sign of economic success, but also of social cohesion and integration, above all with regard to the foreign population and young people.

Fig. 2-2 Employment to population ratio



Note: in % of total population
Source: BAKBASEL

The ratio between persons in employment and total population only varies slightly in the areas that make up the Villa Manin Euroregion, going from 48% in Friuli-Venezia Giulia and Veneto to 43% in Primorsko-Goranska. Except for the last-named, all the areas have a higher employment rate than the European average. From this point of view, there does not appear to be any marked difference between the Western European regions and those of the former Yugoslavia.

Definition

Employment is to be understood as the total number of persons employed in (paid) production processes, both independent workers and employees. A person is employed regardless of the number of hours worked (at least one hour a week). This ratio includes the persons in employment in a certain geographic area, regardless of their place of residence. In economic accounting, this definition is used because it is consistent with the measurement of GDP and makes it possible to break down the employed by segment of activity and to calculate labour productivity.

The **employment rate** in this case is defined as the ratio between the number of persons in employment and the total population of a region. It provides a rough illustration of the degree to which the population is integrated in the economic process.

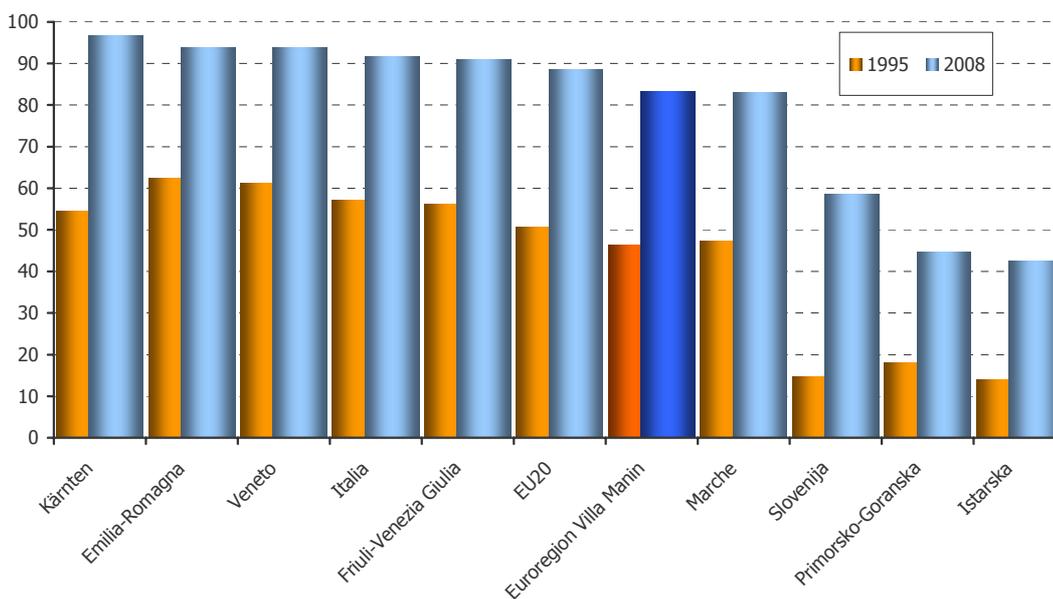
It is seen that Emilia-Romagna has the best result in this context too, with 50% of the total population employed. This region is the only one in Italy that achieves the Lisbon employment rate objectives laid down by the European Commission. The Italian average is at the bottom of the table, above all owing to the low rate of employment in Southern Italy and the islands.

All the areas under comparison have recorded a 3% or 4% rise in the employment rate compared with the situation in 1995, except Slovenia, where the increase has been very low (1%): this points to a situation in which the degree to which the population is integrated in the economic process is almost unchanged.

2.1.3 Productivity

Productivity is an important measurement for the competitiveness of a region. In a period of increasing price competition from the emerging countries, the regions of Western Europe can only maintain their position if they manage to retain competitive advantage. An interesting aspect of the Villa Manin Euroregion is that it includes both regions that must defend their competitive advantage and others that try to exploit their advantage in terms of price and cost.

Fig. 2-3 Labour productivity



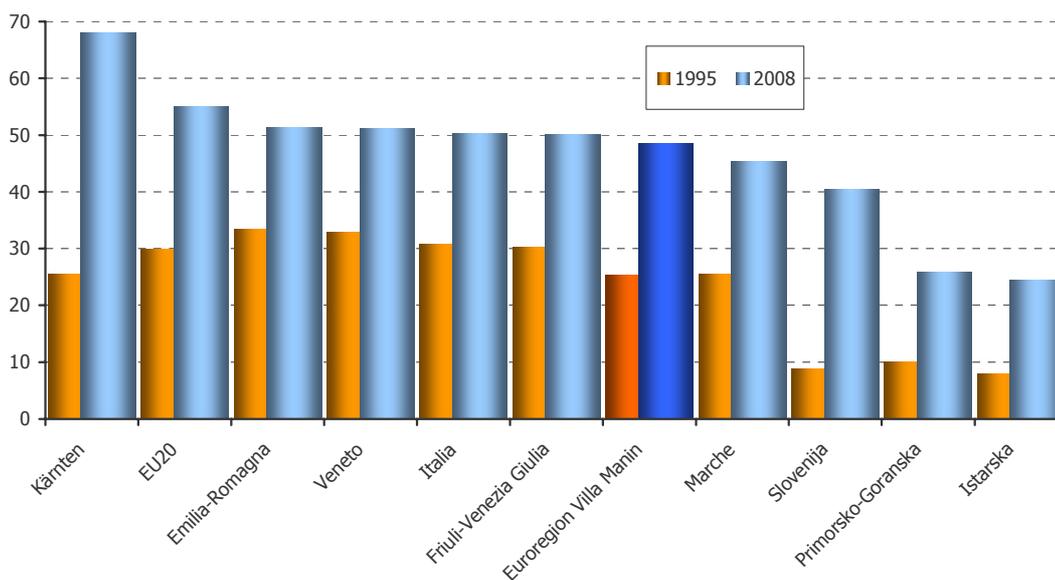
Note: productivity by person in employment in 1.000 USD (at current prices and exchange rates). This graph only serves for a comparison between different geographic areas in a certain year, but not for a comparison between the two years.
Source: BAKBASEL

Average productivity in the Euroregion, USD 83,000 per person in employment in 2008, is 6% lower than the European average of USD 89,000, in spite of the fact that productivity in Carinthia, Veneto and Friuli-Venezia Giulia is higher than USD 90,000. Productivity in the Villa Manin Euroregion is pulled down by Slovenia and, more still, by the Croatian counties, whose

productivity in 2008 was lower than USD 50,000 per person in employment. The great difference between Carinthia and Istria shows how pronounced the productivity handicap of the former Yugoslav areas still remains.

The gain in productivity obtained by Carinthia and Slovenia since 1995 is noteworthy. In 1995 Carinthia's productivity per person in employment was lower than that of the Northern Italian regions and Slovenia only barely reached the level of Istria.

Fig. 2-4 Hourly Productivity



Note: hourly productivity in USD (at current prices and exchange rates). This graph only serves for a comparison between the different geographic areas in a certain year, but not for a comparison between the two years.
Source: BAKBASEL

If hourly productivity is looked at by dividing GDP by the total number of hours worked, it will be seen that the Italian regions are worse off than the European average and other areas in the Villa Manin Euroregion. As a result of the Italian regions' weight in the Euroregion, the average of the Villa Manin Euroregion itself falls below the European average: in 2008 its hourly productivity was 11% lower than EU20.

Definition

In this report **labour productivity** is analysed. Two ratios are given: output per person in employment (labour productivity) and output by working hour (hourly productivity). The former is obtained by dividing GDP by the number of persons in employment, the latter (hourly productivity) dividing output in a year by the total number of hours worked during that year.

The difference in the position of the Italian regions from one graph to another is due to the fact that hourly productivity considers the different degrees of employment and the different working hour patterns in the various countries. Compared with the European average, part-time

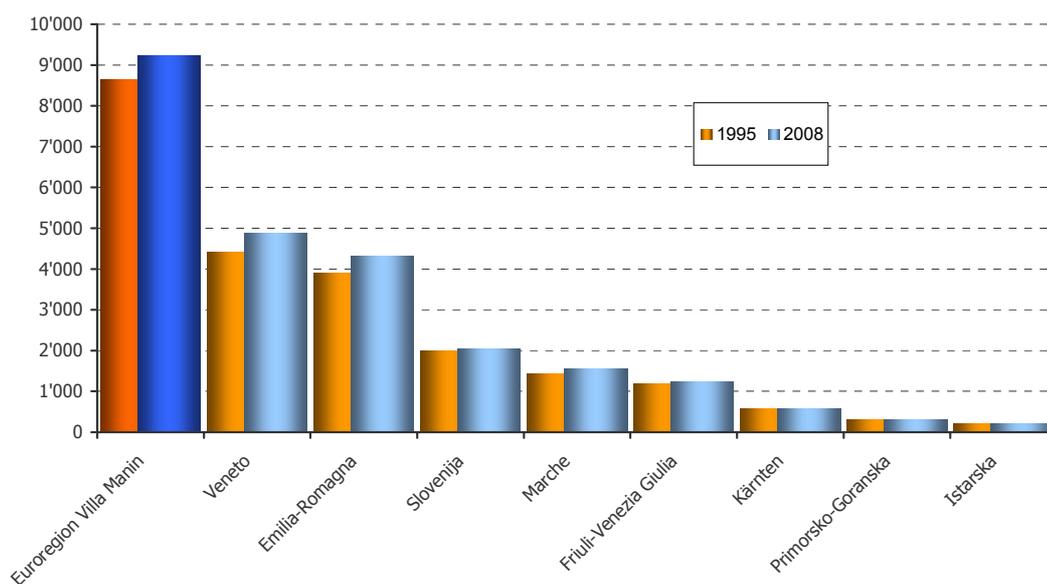
work is still uncommon in Italy, and consequently the number of hours worked per person is higher (1,820 hours in Italy, 1,610 hours on the average in EU20 and 1,720 in the Euroregion in 2008).

2.2 Population and social profile

2.2.1 Distribution of population

Graph 2-5 shows the dimensions of the regions considered in this report in terms of resident population, and highlights the weight of the different geographic areas within the Villa Manin Euroregion.

Fig. 2-5 Resident population



Note: in thousands of people. UE20 and Italy, not shown owing to lack of space, had 461 million and 60 million inhabitants respectively in 2008.

Source: BAKBASEL and various national statistical agencies.

In 2008 there were 9.2 million inhabitants in the Villa Manin Euroregion, 53.0% of whom (4.9 million) living in the Veneto Region. The second area in terms of population numbers is Slovenia, where 22% of the population of the Euroregion reside. It is followed by Friuli-Venezia Giulia (13.3%) and Carinthia (6.1%). There were 517,000 inhabitants in all in the Counties of Istria and Primorsko-Goranska, making up the remaining 5.6% of the population of the Villa Manin Euroregion. This distribution approximately reflects the distribution of persons in employment in the various parts of the Euroregion (Table 1-1).

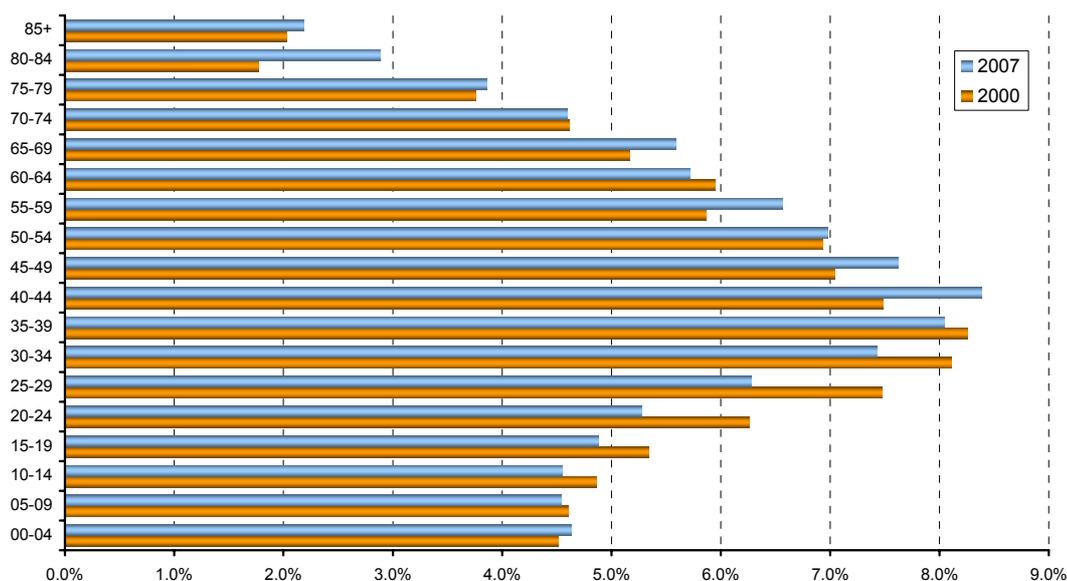
Emilia-Romagna has a population about 11% lower than Veneto, while the population of Marche is equivalent to the mean between Slovenia and Friuli-Venezia Giulia.

The sequence of the regions in the graph did not change between 1995 and 2008, which is not surprising, seeing that the population of a region rarely changes to such an extent as to change its position vis-à-vis others.

2.2.2 Population structure

The graph with the structure of the population of the Villa Manin Euroregion shows a situation in which the share of children and young people is falling and the share of the older population is rising. Between 2000 and 2007 the share of over-80s rose particularly, but also the number of persons between 40 and 60. On the contrary, the share of persons from 20 to 35 decreased.

Fig. 2-6 Population structure of the Villa Manin Euroregion



Note: resident population broken down by age group.
Source: BAKBASEL and various national statistical agencies

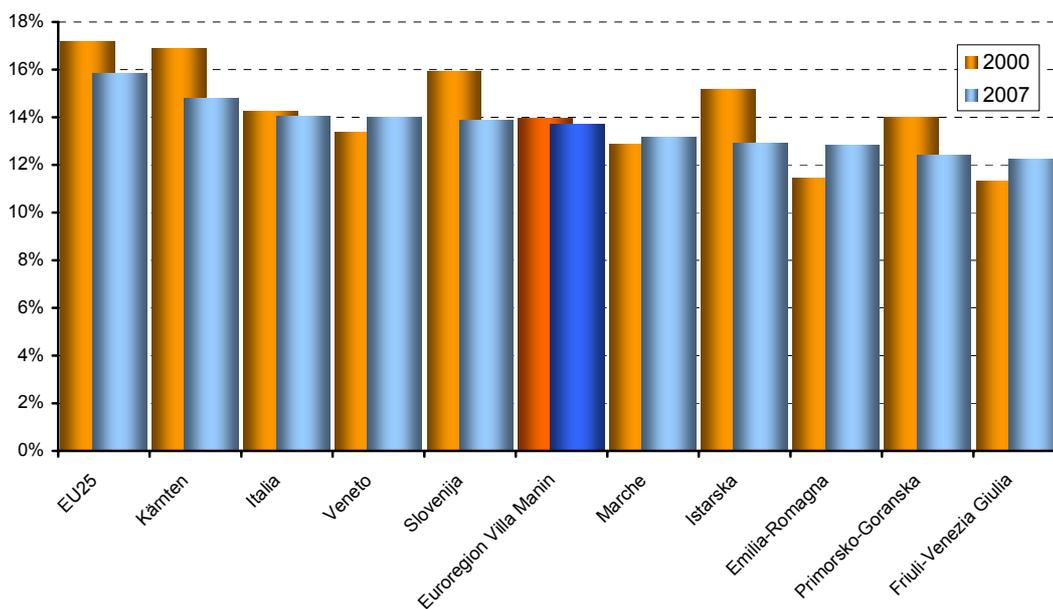
The trend towards an ageing population is a generalised European phenomenon, but it is more pronounced still in the Villa Manin Euroregion. The two graphs below show the proportion of very young persons (from 0 to 14) and the older population (65 up) in the Euroregion, in its component areas, in Italy and the European average (EU25²).

Graph 2-7 shows that all the regions compared have a lower proportion of children and young people than the European average. This situation is most pronounced in Friuli-Venezia Giulia and the Croatian counties, in which only 12-13% of the total population was under 15 in 2007, while the average in Europe is nearly 16% and in the Villa Manin Euroregion as a whole almost 14%, thanks to Carinthia and Veneto. A positive note for the Italian regions is that the proportion of young people rose between 2000 and 2007, while it fell in other parts of Europe.

The second graph confirms that the population of the Italian regions is older than the European average and that within the Villa Manin Euroregion it is Friuli-Venezia Giulia that is most affected by the problem of an ageing population, with 23% of its residents aged 65 and over, while the percentage for the Euroregion as a whole is 19%. The extreme opposite is Slovenia, which is not so old as the European average, with a percentage of 16% as opposed to 17%.

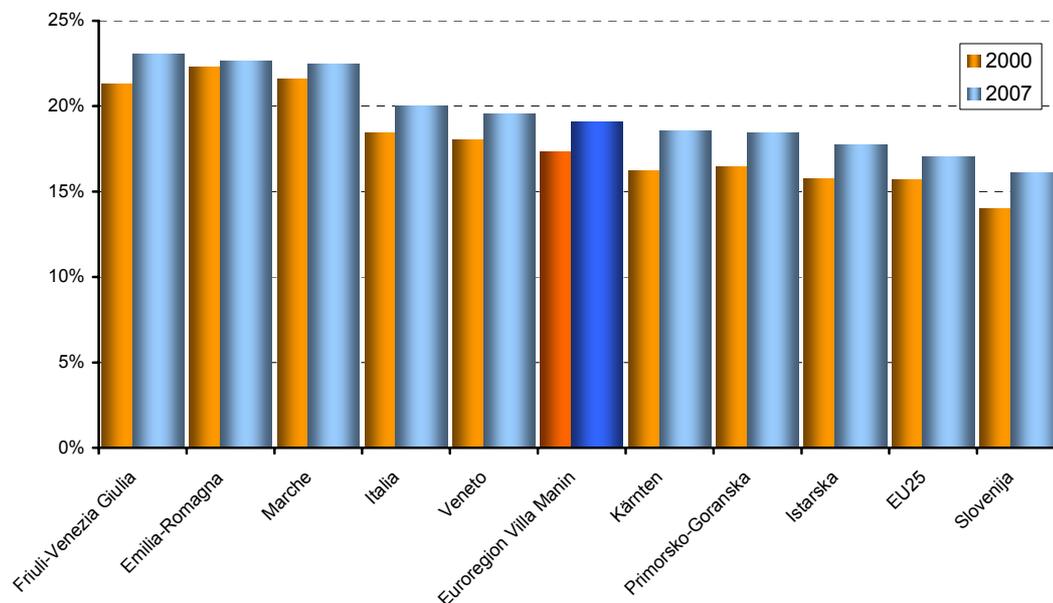
² Here, exceptionally, figures are for EU25 instead of EU20, as the European total is available from Eurostat.

Fig. 2-7 Share of population under 15 years



Note: proportion of population aged 65 and over.
Source: BAKBASEL, various national statistical agencies and Eurostat.

Fig. 2-8 Share of the population aged 65 and over

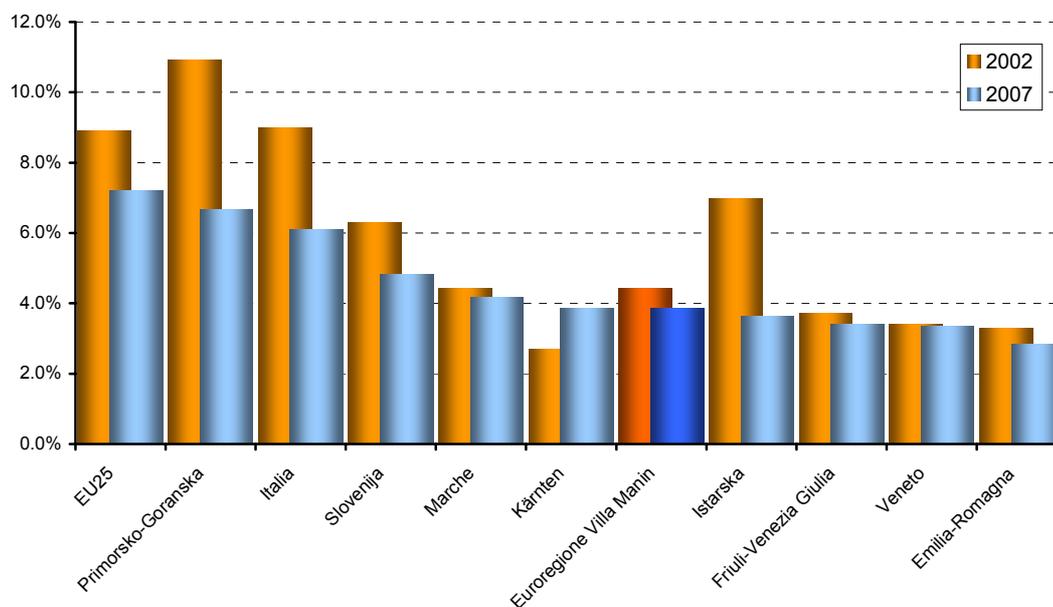


Note: proportion of population aged 65 and over.
Source: BAKBASEL, various national statistical agencies and Eurostat.

2.2.3 Unemployment

An important aspect in outlining the demographic and social profile of a region is the problem of unemployment, which falls heaviest on the weakest groups in society and the young.

Fig. 2-9 Unemployment rate



Note: in % of population aged 15 and over.
Source: Eurostat.

The social scenario with regard to unemployment is brighter than the picture of the ageing population: in 2007 all the areas of which it is composed had a lower unemployment rate than the European average. The rate in the Euroregion was 3.9%, while the European average was 7.2%. Within the Villa Manin Euroregion, Veneto is the region with the lowest rate (3.3%) while the County of Primorsko-Goranska is the area that suffers the most from this phenomenon (6.7%), even if it is lower than the EU25 figure³.

Emilia-Romagna's economic success is also confirmed by unemployment figures: its rate of 2.9% is lower than half the average Italian rate for 2007.

The picture is also favourable looking at the change in the unemployment rate between 2002 and 2007. Except for Carinthia, all the geographic areas compared saw a fall in jobless. The Croatian counties in particular improved considerably. While in Europe most of this success is due to the strong economic situation in 2006 and 2007, there are probably also structural aspects with regard to these counties that led to a reduction in unemployment.

³ In this case too, exceptionally, the comparison is with EU25 and not EU20, as the European total is available from Eurostat.

3 Benchmarking of economic performance

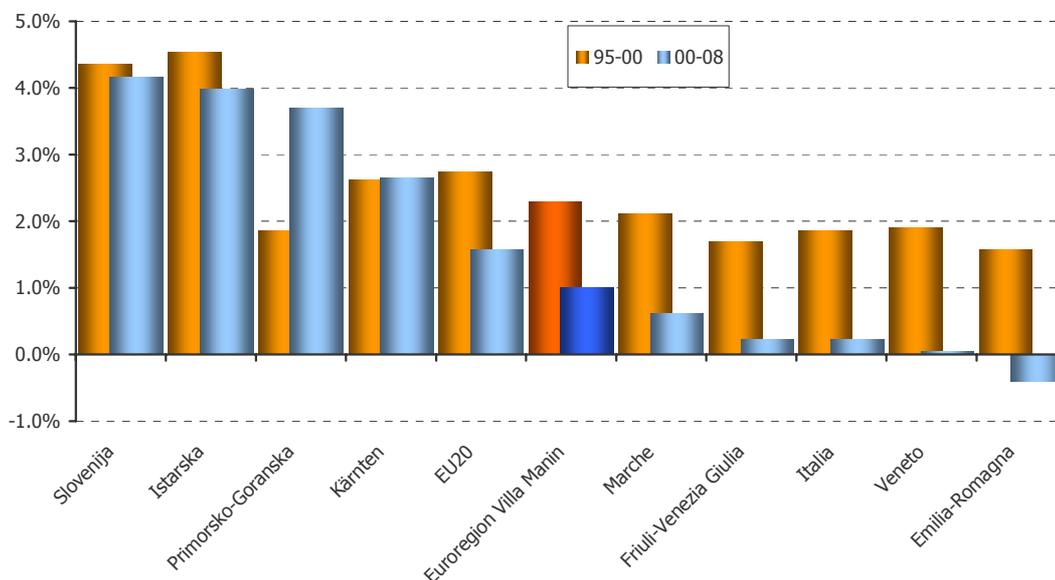
In this chapter the benchmarking study focuses on the progress of GDP per capita, total GDP, population, employment and productivity variables in two periods: 1995-2000 and 2000-2008. The first period was marked by robust economic development at international level, above all for the Western countries, while the second period was a succession of years of bust and boom, concluding with the present financial and economic crisis.

The chapter ends by breaking down real GDP as a variation of the number of persons in employment and as a variation of productivity, with the aim of discerning which of the two components was the greater driver of economic development.

3.1 GDP growth

In this section we measure the Euroregion's GDP per capita growth and total economic development. The growth of GDP per capita shows to what extent wealth has increased (or decreased) in an area. The variation in the total GDP of an area, on the other hand, shows how it develops as a place for the production of goods and services and is the main indicator for the development of its economic strength in a globalised and extremely competitive scenario.

Fig. 3-1 Evolution of real GDP per capita



Note: average % variation per year in GDP in USD PPP at 2000 prices.
Source: BAKBASEL

In both periods considered, Slovenia and Istria were the areas that most increased their economic wellbeing, with GDP per capita growth rates of about 4% per year on the average.

After moderate growth in the second half of the 1990s, Primorsko-Goranska almost came level with the rate of increase of Istria's GDP per capita during the years from 2000 to 2008.

The Villa Manin Euroregion is placed in the middle of the ranking, its GDP per capita growth rate being lower than the European average in both periods. As in the rest of Europe, there was also a marked slowdown in growth after 2000 in the Euroregion, mainly owing to a fall in the rate of increase in wealth in the two Italian regions.

An interesting point is that the richest region in the areas compared with each other, Emilia-Romagna, is the only one that recorded a fall in GDP per capita, showing an opposite trend to the poorer regions and thus a process of levelling down to the average.

PPP (parity of purchasing power)

To compare the GDP of regions with different currencies, price levels and production costs, figures are converted using PPP (parity of purchasing power). PPPs are exchange rates that equalise the purchasing power of various currencies removing the differences in price among the different countries (consumer PPP). The PPP approach based on production prices is utilised to benchmark the added value of the various economic sectors. In the International Benchmarking Database, the dollar is used as the common currency for the purpose of comparison, since the PPPs available on the basis of the production price approach are in dollars.

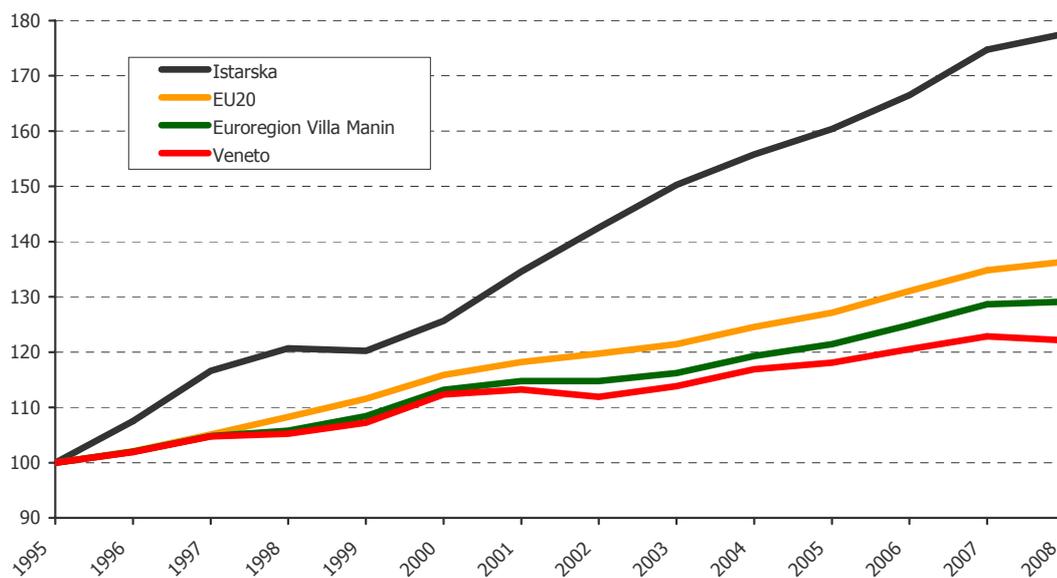
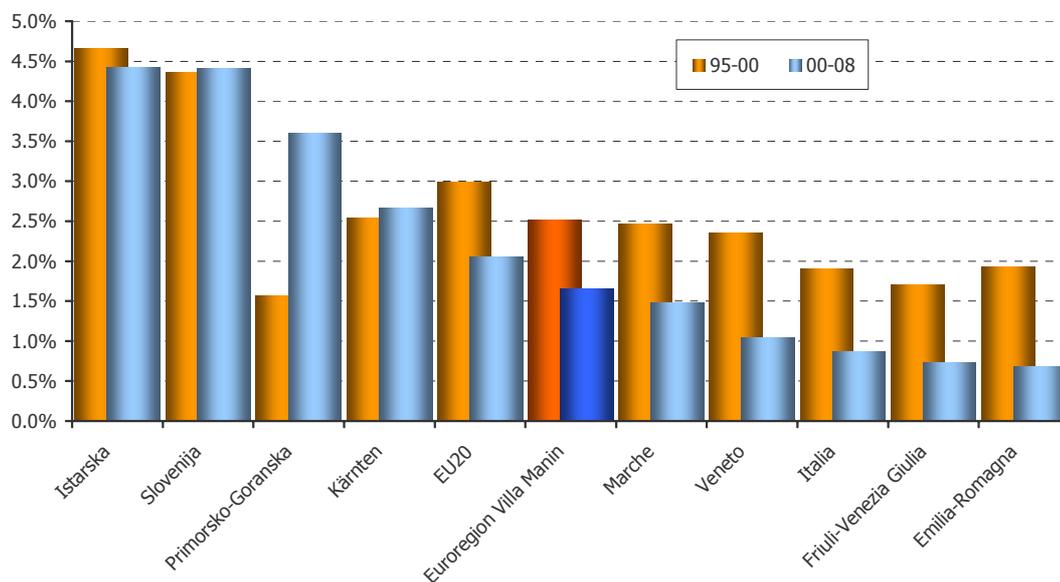
The comparison of the total GDP trend in the two graphs below confirm strong performance by Istria and Slovenia, followed by Primorsko-Goranska in the second period. The Euroregion's position also remains unchanged, at a slight disadvantage with respect to the European average.

Finally, the Italian regions are also to be found in a compact group in terms of total GDP in the right-hand half of the graph, but the slowdown in their growth rates during the period 2000-2008 is less marked in proportion to their GDP per capita: economic development, therefore, was positive in Veneto and Emilia Romagna too (+1.1% and +0.7% per year respectively), but population growth was just as strong, so that GDP per capita was practically stagnant in Veneto and fell in Emilia Romagna.

The line graph illustrates the trend of real GDP throughout the period from 1995 to 2008. For greater clarity, four areas are compared: the Euroregion, Veneto as its largest region, Istria as the area with the strongest growth and the European average.

The trend of GDP in Istria is a perfect example of the process of economic recovery that is taking place in the countries of Eastern Europe as they gradually approach the levels of economic strength of Western Europe (convergence process). Between 1995 and 2008 Istria's real GDP almost doubled, while Veneto's GDP in 2008 was only about 20% higher than in 1995. The trend in the Euroregion clearly tracks that of Veneto, but at a higher rate, so that in 2008 its GDP was nearly 30% higher than in 1995.

Fig. 3-2 Evolution of real GDP

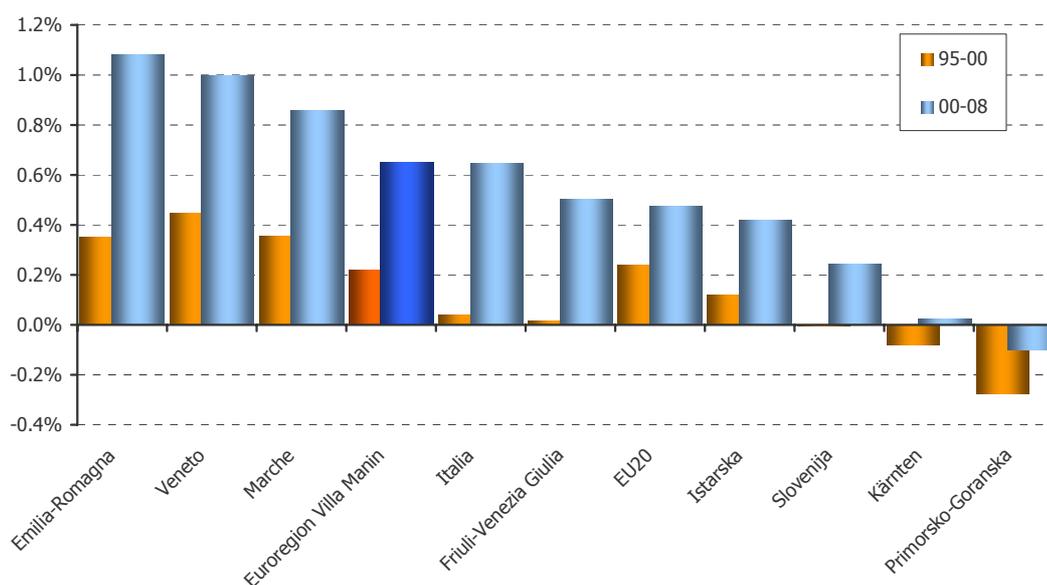


Note: average % variation per year and index (1995 = 100), GDP in USD PPP at 2000 prices
 Source: BAKBASEL

3.2 Population growth

An increase in the total population of a European region is a sign of success and attractiveness, not only as a place of production and labour but also as a place to live. A fall in population, on the other hand, is a sign of crisis. In a Europe that has to tackle the problem of an ageing population and a medium- to long-term reduction in the number of active persons, competition between one place to live and another becomes increasingly important.

Fig. 3-3 Population growth



Note: average % variation per year.
Source: BAKBASEL

From this point of view the Villa Manin Euroregion is more attractive than the European average, with a population increase of 0.65% per year between 2000 and 2008 (EU20: +0.5%). Demographic expansion in Italy is just as high. The growth in the population of the Villa Manin Euroregion is decisively driven by Veneto, which, like Emilia-Romagna and other Italian regions, has benefited from a substantial increase in immigration during the last decade. European Mediterranean countries appear to have become more attractive for foreign labour, partly recovering the gap that separated them from the classic countries associated with immigration into Europe in previous decades. This is a clear sign of the success of the economy of these countries, which have the power to integrate new labour forces in their production processes, at least in part. Friuli-Venezia Giulia takes less advantage of this phenomenon than the Italian average, even if there was a higher population growth rate in this region after 2000 than in the period from 1995 to 2000.

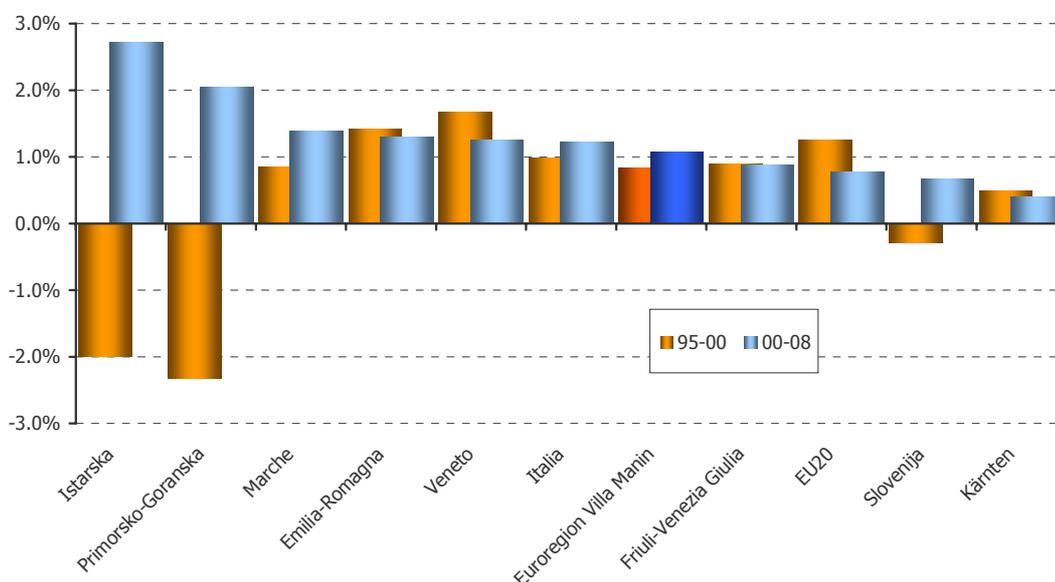
Among the remaining Villa Manin Euroregion areas, Istria and Slovenia have relatively low population growth rates (0.4% and 0.2% per year from 2000 to 2008), while the size of the population is stationary in Carinthia and falls in Primorsko-Goranska, which is an area still

affected by unemployment and by the emigration of young people and other persons of working age.

3.3 Employment growth

The performance of an area's economy is not only measured in terms of the increase in GDP per capita, but also through the labour market. For an area to succeed as a place where goods and services are produced and as a place of residence, it is important that an increase in production should also result in the availability of a considerable number of new jobs, which, in its turn, makes an area more attractive.

Fig. 3-4 Employment growth



Note: Average Growth in % per year
Source: BAKBASEL

In the graph showing the variation in the number of persons in employment, the first thing that catches the eye is the radical change in the trend of employment in the Croatian counties: after years of heavy losses of jobs between 1995 and 2000, this decade is seeing a steady recovery of the numbers of employed. Like the high GDP growth rate, a part of the reason for the rise in employment is the normal reaction after years of wars and political unrest. At the same time, however, this fact reveals that these areas have found the way to approach average European employment levels (convergence process). A similar process, even if it is to a much less marked extent, is also seen in Slovenia.

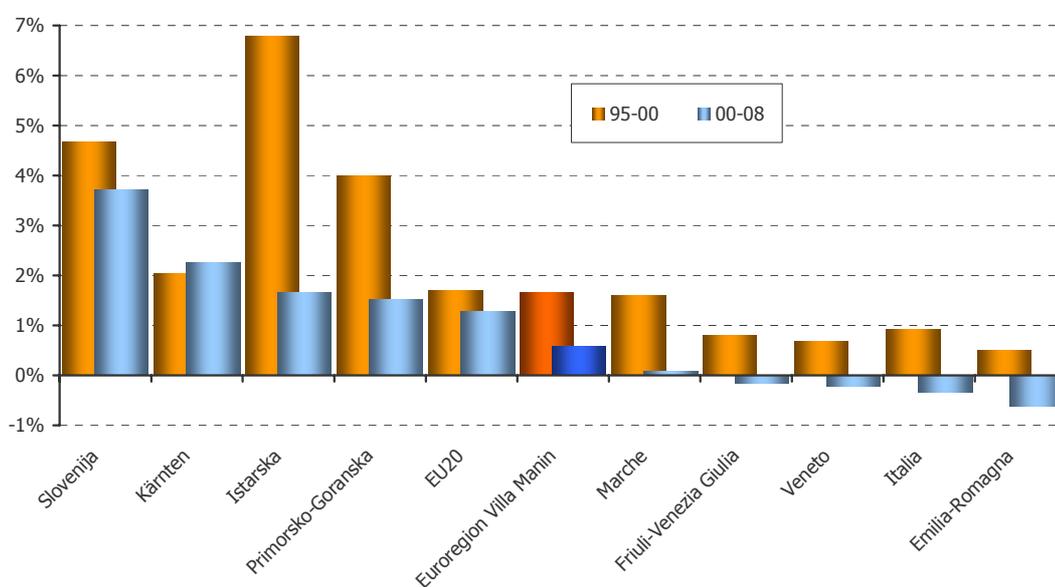
The increase in the number of people involved in the production process in the Villa Manin Euroregion, 1% per year on the average, is little below the Italian average. The expansion of Veneto and Emilia-Romagna in terms of jobs in both the periods considered confirms their good

positions with regard to the population's employment rate (see Chapter 2.1.2). The regions that are weak in job creation, on the other hand, are Slovenia and Carinthia, whose performance is lower than the European average.

3.4 Productivity growth

Now it is interesting to see how the labour productivity variable develops, above all in relation to regional job performance. The greatest gain in competitiveness for an area's economy, in fact, is obtained when it manages to create more jobs and increase productivity at the same time. Before going on to see the combined analysis of the changes in these two variables, the graph below shows the productivity data in the two periods considered.

Fig. 3-5 Evolution of real labour productivity



Note: in % per year, output per person in employment in USD PPP at 2000 prices.
Source: BAKBASEL

Looking at the variation in productivity per person in employment, we see a gap between the Italian regions, where performance is weak, and the Villa Manin Euroregion areas in the other countries, where there are considerable increases in productivity. There is a substantial improvement in the level of competitiveness in Slovenia above all, largely explained as a convergence process towards the productivity levels of Western economies.

The transition from a planned economy to the free market and the reorganisation of the goods and services associated with the change also gave rise to productivity increases in the Croatian counties, especially in the first transition phase. The public sector in particular has seen radical changes with a substantial reduction in the number of staff, and this has had a marked effect on labour productivity. Seen from this point of view, the high increase in productivity in Croatia

between 1995 and 2000 is a phenomenon that can hardly be compared with trends in Western European areas.

The good performance of productivity in Carinthia made this region the most productive among those compared in this report. The reason for this success lies in the policies that have been adopted in this region in support of innovation and innovative capacity.

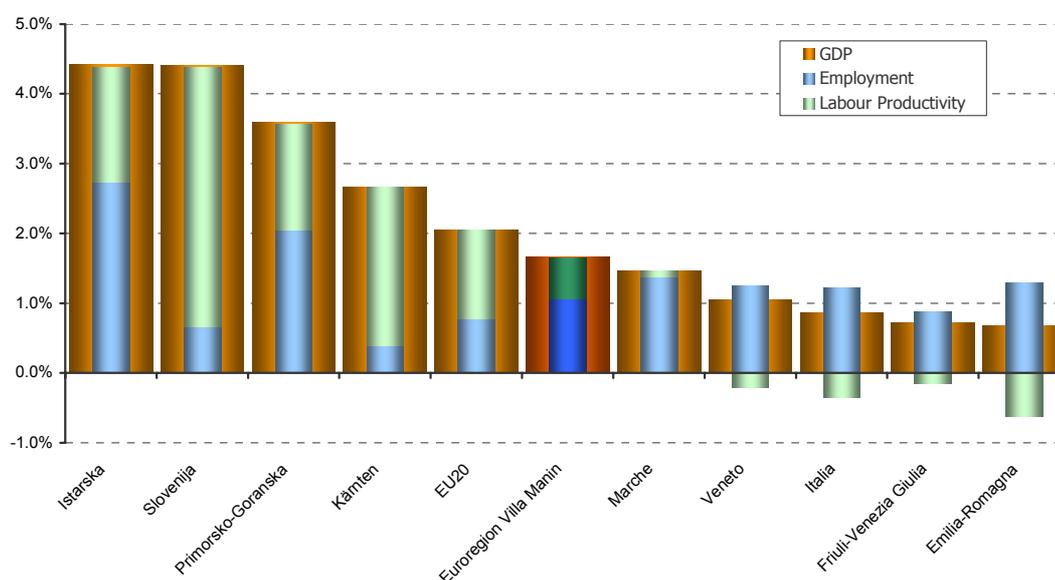
The data showing variations in hourly productivity confirm that the Italian regions are behind the others in both periods considered. It has been observed that during the last decade, as regards the production of goods and services, Northern Italy has not achieved the increase in capital intensity that has enabled other Western European economies to remain competitive on global markets.

In general, the increase in hourly productivity is a little higher than the growth in productivity per person in employment. The main reason is the tendency to cut the number of hours worked per person both by means of a change in the pattern of working hours with regard to full-time and part-time work and by means of collective labour agreements envisaging a shorter working week.

3.5 Breakdown of economic development

In brief, the growth of real GDP may be broken down into an increase in persons in employment and an increase in productivity per person in employment. It can thus be deduced which of the two components has been the stronger driver of economic development.

The graph below very clearly shows that economic development in the Villa Manin Euroregion is a result produced by both factors, productivity and employment, although the contribution of employment is the stronger. Furthermore, the graph shows the problem of the loss of productivity in the Italian regions, whose economic development is exclusively due to the employment factor.

Fig. 3-6 Breakdown of GDP growth

Note: 2000-2008, % variation per year. GDP and productivity in USD PPP at 2000 prices.
Source: BAKBASEL

The other geographic areas in the Villa Manin Euroregion took advantage of the positive inputs from both the factors taken into consideration, recording an overall performance that is clearly better than the European average. Two models can be distinguished, however: the Croatian counties with a bigger contribution on the part of employment and Slovenia and Carinthia with a high gain in productivity and only a slight employment effect.

As far as the remarkable performances of the Croatian counties and Slovenia are concerned, it should be borne in mind, to tell the truth, that these countries received substantial amounts of financial support from international institutions from the time of their declarations of independence, above all from the World Bank and the European Union. The main purpose of the support programmes is to bring the Balkan countries up to the level of economic and political development of Western Europe. The political prospect of entering the European Union is the main reason for European support (this objective has already been attained in Slovenia, but negotiations with Croatia are still in progress). Among the largest World Bank investments are those in transport infrastructures and communications, in the reform of the public administration and welfare system and in a pay increase programme.⁴ Some of the growth in GDP is certainly due to this big financial commitment on the part of international institutions.

⁴ See World Bank, *Project Portfolio, Croatia*, September 2008.

4 Benchmarking of economic sector performance

After describing the present macroeconomic situation and how it developed from the mid-1990s to 2008, this chapter analyses which economic sectors have an important part to play with regard to the economic strength and performance of the Euroregion and its components. The analysis starts from the three classic economic sectors (primary, secondary and tertiary) and then moves on to the five BAKBASEL key sectors (defined below), to end with a study of some industrial and services segments that are of particular interest for the Villa Manin Euroregion.

4.1 The three classic economic sectors

This section analyses the economic performance of the three classic economic sectors in terms of added value and employment.

Tab. 4-1 Importance of the three classic sectors in 2008

	Primary sector		Secondary sector		Tertiary sector	
	Share of regional GDP	Share of employed	Share of regional GDP	Share of employed	Share of regional GDP	Share of employed
Regione Veneto	1,9%	2,8%	34,8%	37,7%	63,3%	59,5%
Regione Friuli Venezia Giulia	1,9%	3,3%	26,9%	28,0%	71,3%	68,7%
Bundesland Kärnten	2,6%	6,1%	32,1%	29,5%	65,3%	64,4%
Slovenija	1,7%	8,7%	34,6%	34,7%	63,8%	56,6%
Istarska	2,7%	8,3%	32,8%	20,0%	64,5%	61,8%
Primorsko-Goranska	1,4%	5,7%	35,1%	28,3%	63,5%	66,0%
Euroregion Villa Manin	2,0%	4,7%	33,3%	34,7%	64,7%	60,6%
Regione Emilia Romagna	2,2%	3,1%	33,6%	33,3%	64,2%	63,7%
Regione Marche	1,8%	3,7%	32,0%	37,3%	66,2%	59,1%
ITALIA	2,0%	3,9%	27,0%	28,2%	71,0%	67,9%
EU 20	1,7%	4,2%	26,6%	25,4%	71,6%	70,5%

Proportion of nominal regional GDP and proportion of total persons in employment in region.
Source: BAKBASEL

Table 4-1 shows the importance of the three sectors in the different geographic areas in terms of added value and employment. The primary sector, on the average, is more important in Carinthia and Istria, contributing 2.6% and 2.7% of GDP respectively and giving jobs to 6.1% and 8.3% respectively of the persons in employment in 2008. The number of jobs in Slovenia in the primary sector is also relatively high. Overall, however, it is clear that in advanced economies agriculture still only has a marginal economic role to play.

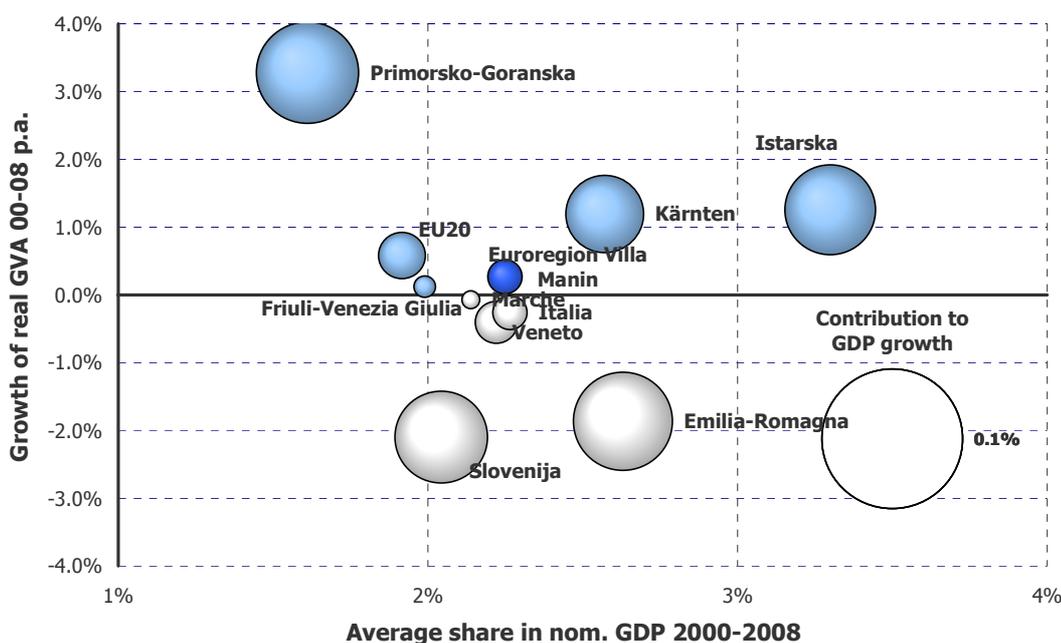
The secondary sector is more important for Veneto and Primorsko-Goranska than the European average. In Veneto this sector produces 35% of GDP (with 38% of those in employment), while

the average for Europe is about 25% (both for added value and employment). In view of Veneto's economic importance in the Villa Manin Euroregion, the secondary sector in the area as a whole is also more important than the European average. Finally, the tertiary sector accounts for about 65% of the Euroregion's GDP, lower than the European average of 72%. There is also a difference of about 10% in the number of persons employed in the tertiary sector between the Euroregion and the European average. Within the Villa Manin Euroregion itself, Friuli-Venezia Giulia is the only region in which services play as important a part as in the rest of Europe.

4.1.1 Primary sector

The analysis now compares the primary sector's contribution to GDP growth in the different geographic areas. A bubble graph is used for this purpose, combining the proportion of GDP due to the sector (x-axis) and mean growth in its added value (y-axis). The combination of these two variables yields the size of the bubble, which shows its contribution to the growth of GDP.

Fig. 4-1 Primary sector contribution to growth

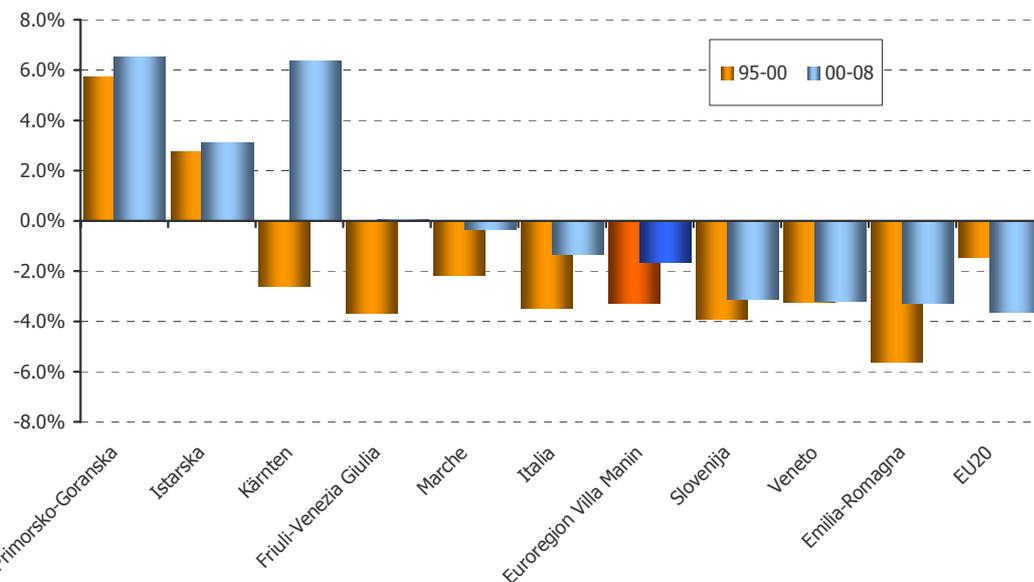


Note: in % per year, GDP in USD PPP at 2000 prices.
Source: BAKBASEL

The graph shows that Istria was relatively more specialised in agriculture between 2000 and 2008: there is a more than 1% difference between primary sector GDP in Istria in this period and the corresponding figure for EU20. Nevertheless, this sector is clearly decreasing in importance in this county too: added value growth (+1.4% per year) is considerably less than the growth of total GDP in Istria, +4.4% per year, while it is greater in Primorsko-Goranska

(+3.2% per year). The primary sector's contribution to the growth of GDP is positive in both Croatian counties and in Carinthia too, while the opposite phenomenon is seen in Slovenia, Emilia-Romagna and Italy in general during the same period, with a fall in the added value of agriculture. The position in the Euroregion as a whole was stagnant.

Fig. 4-2 Evolution of primary sector employment



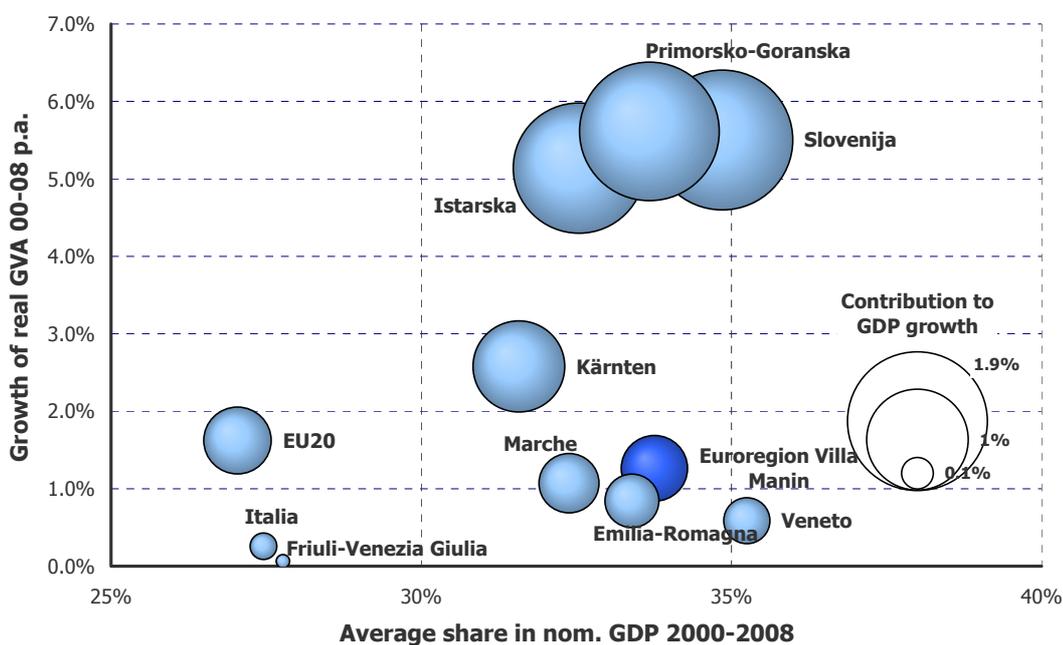
Note: % variation per year.
Source: BAKBASEL

Employment trends in agriculture also show that this sector is in the process of shrinking in the Italian regions and in Europe in general, while the Croatian counties continued to create new jobs in this form of activity. The trend in Carinthia was clearly negative in the second part of the 1990s but there was a reversal after 2000.

4.1.2 Secondary sector

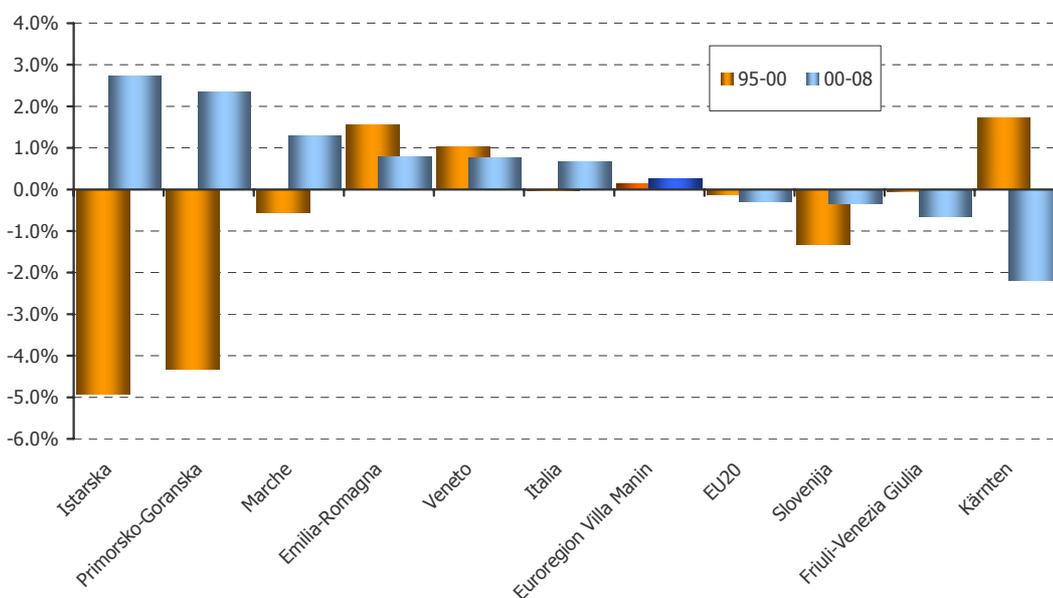
The secondary sector, which includes mining, industry, energy production and construction, accounts for one-third of total economic activity in the Villa Manin Euroregion. The secondary sector share is higher than the European average in all parts of the Euroregion. With an increase in added value of about 1.5% per year on the average during the period from 2000 to 2008, however, the performance of the sector in this area is slightly lower than in Europe as a whole. The positive trend in the Croatian counties and Slovenia (between 5% and 6%), largely due to sizeable investment in building and civil engineering, is not strong enough to counteract the almost stagnant situation of industry in Veneto and Friuli-Venezia Giulia.

Fig. 4-3 Secondary sector contribution to GDP growth



Note: in % per year, GDP in USD PPP at 2000 prices.
Source: BAKBASEL

Fig. 4-4 Evolution of employment in secondary sector



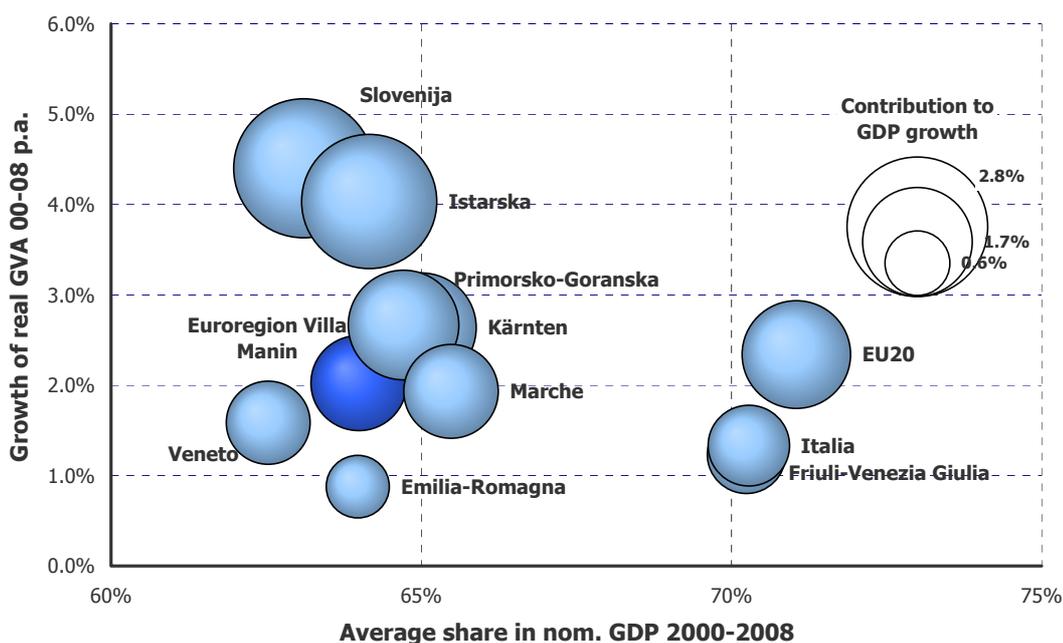
Note: in % per year
Source: BAKBASEL

The graph showing the number of persons in employment in the secondary sector reveals a very heterogeneous situation: while the Villa Manin Euroregion, the Italian average and the European average indicate a certain degree of stability and employment in Veneto and Emilia-Romagna is slowly but steadily increasing, the Croatian counties went from a radical loss of jobs in the 1990s to a resumption in expansion in this decade. Carinthia, on the other hand, is in absolutely the opposite position, with a substantial fall in the number of employed in the industrial and construction sectors.

4.1.3 Tertiary sector

During the period from 2000 to 2008 the tertiary sector showed more signs of expansion than the primary and secondary sectors. In advanced economies, services are found to be the activities that drive economic development, together with some highly technological industrial and manufacturing niches. The overall mass of services obviously includes various activities with a limited potential for growth (such as the public administration and teaching), but there are as many others that are expanding strongly, such as financial and business services.

Fig. 4-5 Tertiary sector contribution to GDP growth



Note: in % per year, GDP in USD PPP, at 2000 prices
 Source: BAKBASEL

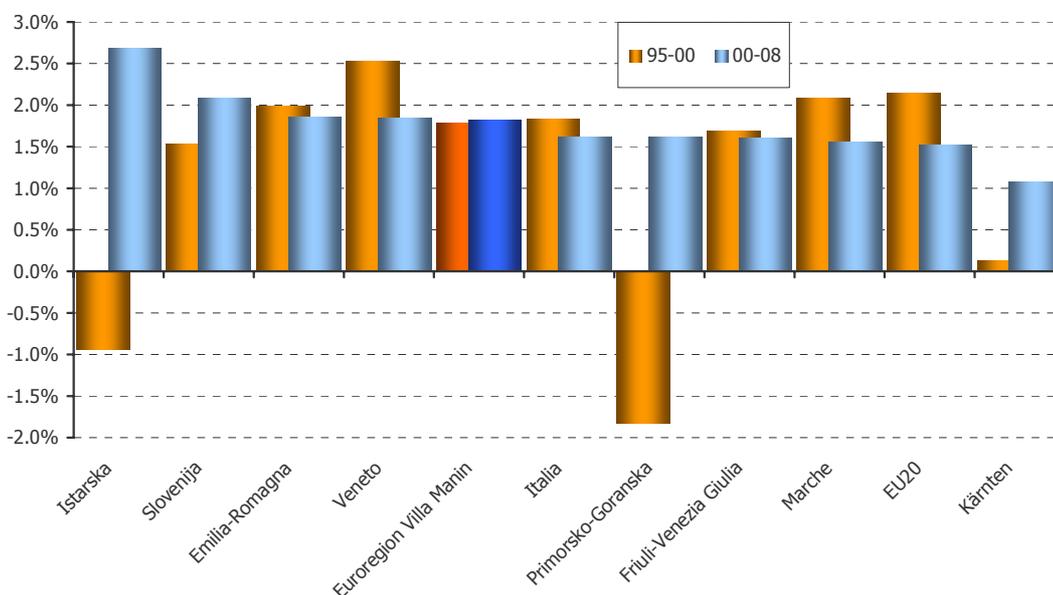
While on one hand the Villa Manin Euroregion is more industrialised, on the other hand services are less important in the area than the European average. Services produce more than 70% of GDP in Europe and in Italy; in the Euroregion and its component parts the share of services is smaller, except for Friuli-Venezia Giulia, where the region's status as an Autonomous Region is

the main reason for its possessing more administrative and public services than the Italian benchmark regions.

The Villa Manin Euroregion has an added value growth rate that is slightly lower than the European one for this sector between 2000 and 2008, but higher than the Italian average. The bubble graph, however, highlights the great increase in added value from services in Slovenia and Istria (in Istria this is largely due to the expansion of segments related to tourism).

The success in Slovenia and Istria has had a favourable effect in terms of employment too, as shown in the graph below. The graph also indicates that overall employment in the Villa Manin Euroregion has become higher almost solely thanks to pronounced growth in the services sector (an average of +1.8% per year in both periods considered).

Fig. 4-6 Evolution of employment in tertiary sector



Note: in % per year
Source: BAKBASEL

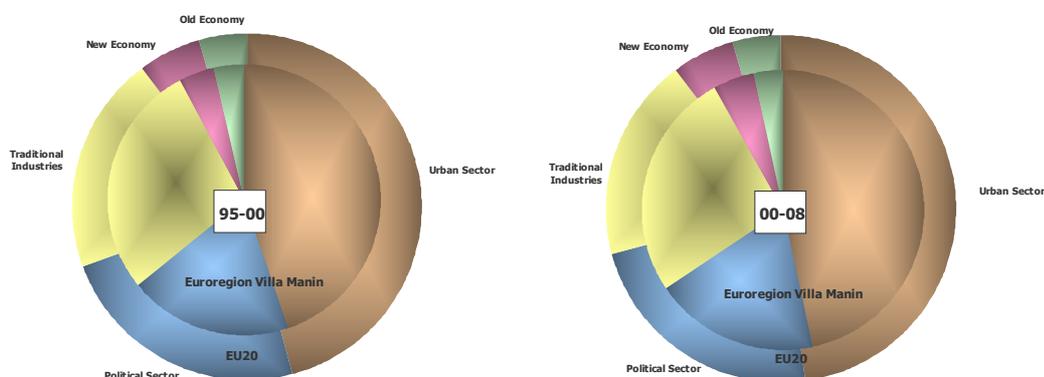
Analysis of the three classic sectors provides the first tool for understanding the economic development of the area, but in the next part of this chapter another way of considering combinations of economic segments is examined - the five BAKBASEL key sectors - in order to realise which economic sectors are the most influential.

4.2 The five key sectors

To capture the picture of structural change in a modern economy, BAKBASEL combines the 45 economic sectors in the International Benchmarking Database into five key economic development drivers. An aggregation of this kind puts us in a position to obtain a better view of the trend of the structural change and the economic potential of a region than the three classic sectors, and even than a detailed analysis of economic segments. The five key economic sectors are composed as follows:

- «New economy»:
the features of these segments are very dynamic growth and a high level of productivity. The new economy is closely linked to the areas of communications and information systems and thus to new technologies. It includes the manufacture of computers and office machinery, the electricity and electronics industry, telecommunications and information services;
- «Old (but strong) economy»:
this sector combines high added value economic and high productivity segments. The manufacturing process and/or the product itself in these activities demand advanced technology. The sector includes the chemical and pharmaceutical industry, precision manufacturing, optics and watch making and manufacturing transport vehicles;
- «traditional industries»:
this sector gathers together production sectors in which the products manufactured normally have a low added value. Labour costs play an important role in these segments, and high technology is less important. The sector includes the food and tobacco industry, the textile and clothing industry, woodworking, paper production and printing, refineries, rubber and plastic products, other non-metallic products, metallurgy, mechanical industry, other forms of manufacturing and construction;
- «urban sector»:
personal and business services, typically concentrated in urban areas. Productivity in these areas differs greatly from one segment to another. They include trade and repair work, hotels and restaurants, transport, finance, property and management consultancy services, associations, cultural and sports clubs, services to the person and domestic services;
- «public sector»:
a mix of economic activities that are in public hands or that are normally particularly affected by political decisions even if they do not have to depend on politicians directly. Total productivity is not very high. This sector includes agriculture, the production and distribution of energy, gas and water, research and development, public administration, education, health and social services and waste disposal.

Fig. 4-7 The importance of the key sectors, Euroregion and EU20

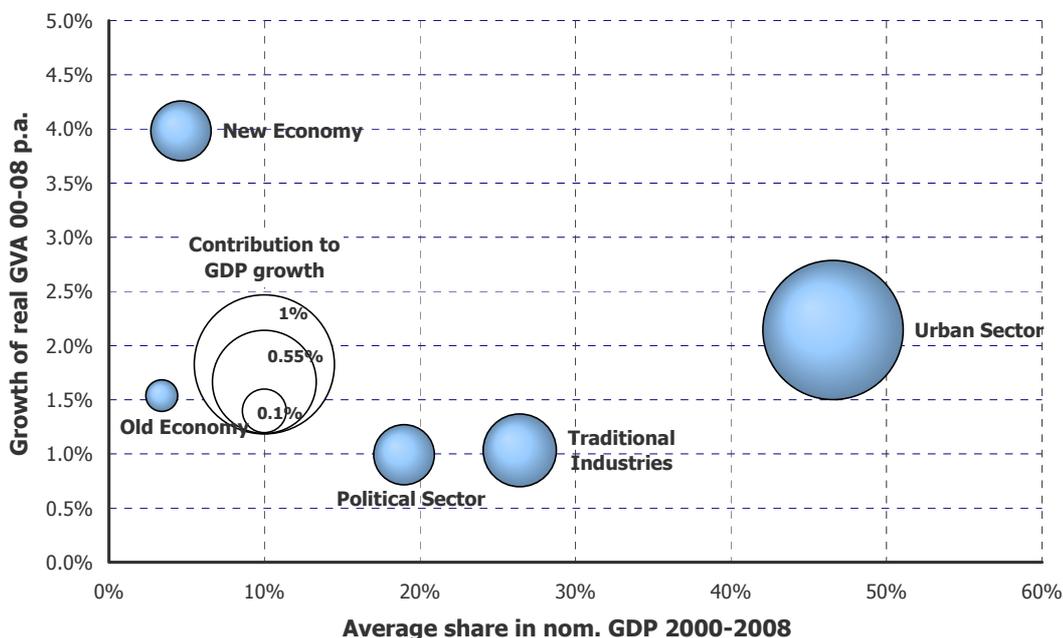


Note: the key sectors in % of nominal GDP.
Source: BAKBASEL

The above figure shows that in terms of added value the traditional sector is more important in the Villa Manin Euroregion than the European average. On the contrary, the political sector is clearly less represented. The biggest sector, urban services, is only slightly less important in the Euroregion than the European average. Finally, the new economy and the old economy, both sectors that require considerable innovative capacity, play a less important role than they do in Europe as a whole.

The two diagrams, more or less identical, present a picture of an economic structure that has hardly changed from one of the two periods to the other. The data show that the urban sector percentage has risen slightly while the traditional industries became a little less important.

Fig. 4-8 The five key sectors' contribution to GDP growth in the Euroregion



Note: Change in % per year, GDP in USD PPP, at 2000 prices
 Source: BAKBASEL

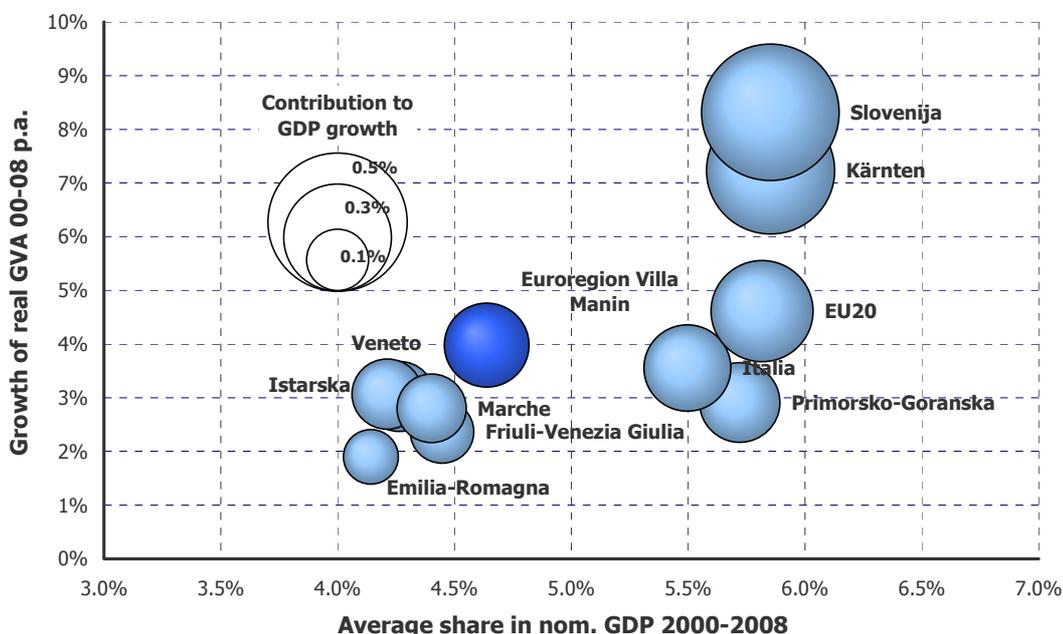
This bubble graph is another illustration of the importance of the five key sectors (x-axis) combined with the mean annual growth rate of added value (y-axis). Here too, the sizes of the bubbles show each sector's contribution to the growth of real GDP.

Just under half of GDP is produced by urban services in the Villa Manin Euroregion: with a mean growth rate of 2.1%, this sector is the driver behind almost two-thirds of the rise in GDP (1% contribution out of a 1.6% variation in GDP). The second most important is the traditional sector, which grows by about 1% per year on the average, making a contribution to growth of 0.3%. Two very different sectors are abreast in third place: the new economy and the political sector. The new economy only has 4.5% of GDP, but rising at 4% each year its contribution to growth is substantial. The political sector contribution is roughly the same: it has only expanded by 1% on the average, but it produces almost 20% of GDP.

The most interesting sectors for the Villa Manin Euroregion are described below. The new economy and urban services have most potential for growth. After this the traditional economy is also studied in detail in view of its importance for this Euroregion.

4.2.1 The new economy sector

Fig. 4-9 New economy contribution to GDP growth



Note: in % per year, GDP in USD PPP, at 2000 prices
 Source: BAKBASEL

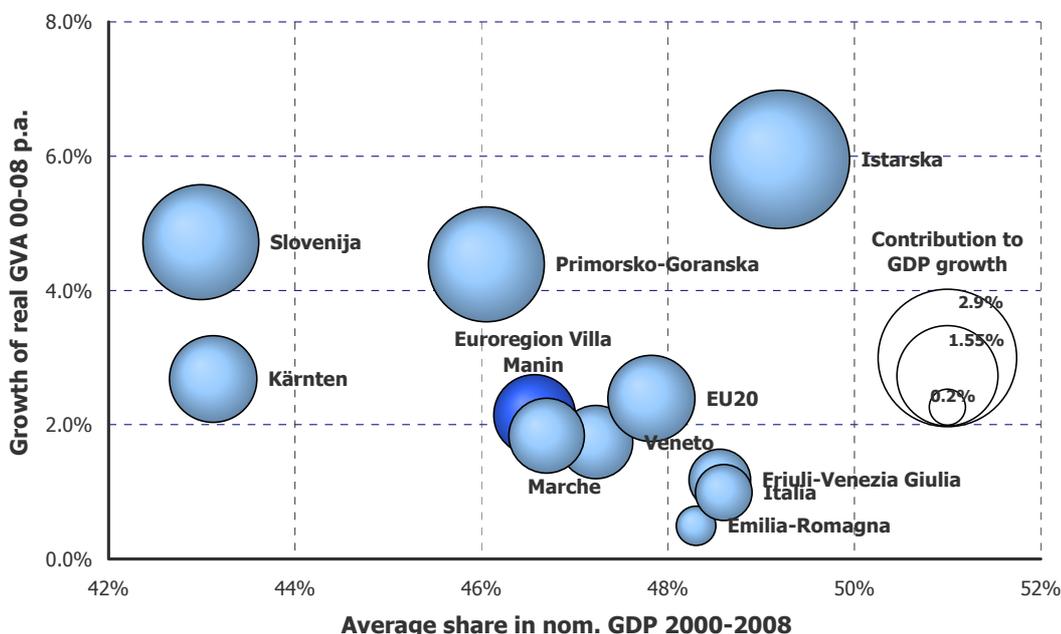
The new economy is less important in the Villa Manin Euroregion than the European and Italian average. Nevertheless, it is an important sector for Slovenia and Carinthia, above all owing to the communication services segment. The new economy plays an important part in these two areas both in terms of the share of GDP that it produces and the rate of growth that it has achieved. Consequently these areas' contribution to the growth of GDP has also been high (and indeed higher than the European average). The new economy has a share of GDP that is equal to the level in Europe in Primorsko-Goranska too.

The new economy is not very important in the benchmark regions. As far as the Italian regions are concerned, the explanation for this is that there is no big metropolis among the regions chosen. Information and communication services in Italy, in fact, are far more concentrated in large cities such as Milan and Rome.

There is growth potential for the economies of the Italian parts of the Euroregion in this field.

4.2.2 The urban sector

Fig. 4-10 Urban services contribution to GDP growth



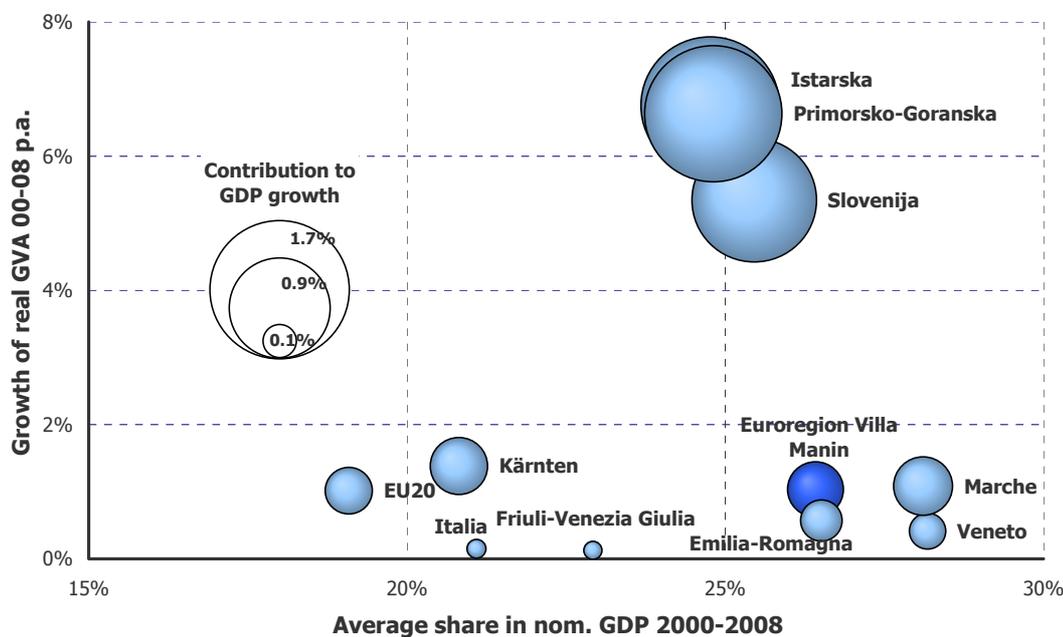
Note: in % per year, GDP in USD PPP, at 2000 prices
Source: BAKBASEL

Urban services produce a share of between 43% and 49% of GDP on the average in the geographic areas of the Euroregion. Unlike metropolitan areas such as Milan, Vienna, Paris, etc., therefore, these areas cannot be considered particularly urban. Nevertheless the sector is so great that it is fundamental in any study of economic performance. In general one could say that urban services, especially financial, property and business services, are the most productive with a high growth potential in metropolitan areas. Consequently these segments can make a strong contribution to GDP growth. It is true, however, that this sector also includes services that are to be found both in town centres and on the outskirts: examples are trade, hotels and restaurants.

The graph shows that the highest concentration of urban services is to be found in the County of Istria owing to the great importance of added value from tourism. Growing at 6% per year, this sector contributed almost 3% per year to the growth of GDP in Istria between 2000 and 2008. Slovenia and Primorsko-Goranska also achieved high growth rates, while the Italian regions (and the Italian average) are below the European and Euroregion average. Carinthia, where this sector, apart from tourism, is relatively less important, grew slightly more than the Euroregion average, which is 2.1% per year.

4.2.3 The traditional industries sector

Fig. 4-11 Traditional sector contribution to GDP growth



Note: in % per year, GDP in USD PPP, at 2000 prices
Source: BAKBASEL

As we have seen above, this sector gathers together industries that normally make traditional goods, in which labour costs play an important role. This sector, therefore, is particularly exposed to price competition from a part of Eastern Europe and from the emerging economies. Some classic cases are the textile and clothing industries and metallurgy. On the other hand, it is easier to find niches in the food and mechanical industries, which are also traditional sectors, but where Western European countries still have a quality advantage. This makes it necessary to pursue continuous innovation and high quality standards. A particular segment of the traditional sector is the building trade, which is very labour-intensive but whose products cannot be replaced by those made by foreign competitors.

Thus, in order to understand distribution among the regions in the graph above, it is important to bear in mind that this sector is a large aggregation with heterogeneous activities. The Slovenian and Croatian counties' substantial contribution to GDP growth is due above all to large-scale investment in construction, necessary to improve the already existing real estate and infrastructures in order to bring them within range of Western Europe, and to investments in new projects. In the period under consideration, the traditional economy produced about 25% of GDP in both Slovenia and the Croatian counties, attaining a 5% to 7% growth rate.

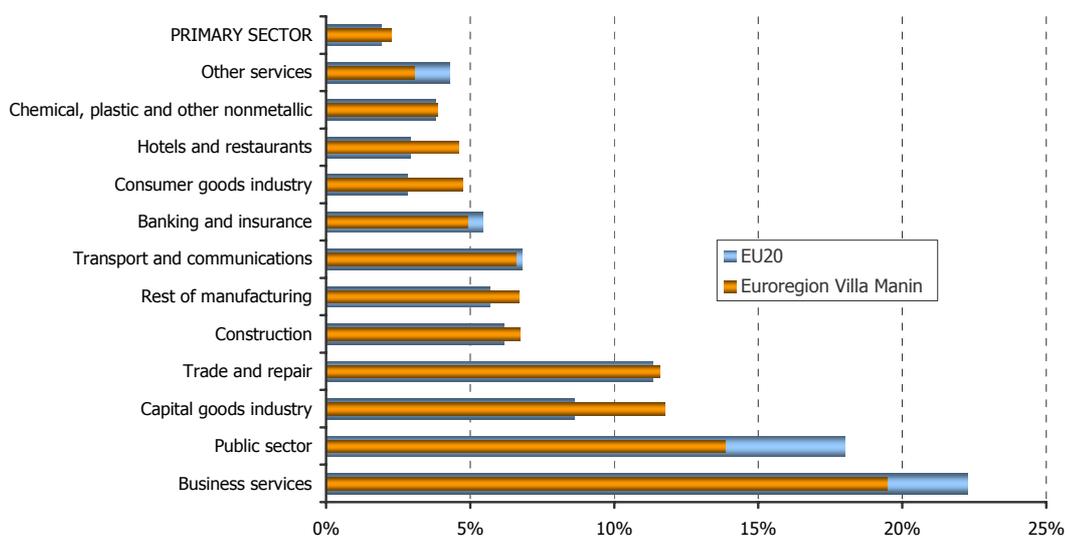
In Veneto and the benchmark regions, Marche and Emilia-Romagna, the traditional sector is very important in terms of its weight in the total economy (about 28% of GDP), but from 2000 to 2008 it only managed moderate growth rates of between 0.4% and 1% per year.

4.3 Some segments of industry and services

After having spoken of the economic performance of the three classic economic sectors and the five key sectors as defined by BAKBASEL, this section examines some industries and services that are of special interest to the areas of the Villa Manin Euroregion. The graph below shows how GDP is distributed in 13 economic sectors, comparing the Euroregion with the European average. Some sectors are partial repetitions of those we have already looked at, but the majority of them provide more detailed information regarding the Euroregion’s economy.

The graph confirms the results of the previous urban services and political sector studies: it is seen that business services and the public sector are the most important segments in the Euroregion, as is the general rule in Europe, but to a noticeably lower extent than the European average. Business services (real estate, information technology, free professions and management consultancy) generated almost 20% of the Euroregion’s GDP between 2000 and 2008, while this figure was 3% more in EU20. The main reason for this difference is the small number of large consulting firms, which are more concentrated in the metropolitan areas. The public sector, which includes public administration, education and the health service, accounts for about 14% of GDP in the Euroregion and 18% in EU20. The difference is due to the fact that most areas in the Euroregion have no central government offices.

Fig. 4-12 Economic structure of the Villa Manin Euroregion and of EU20



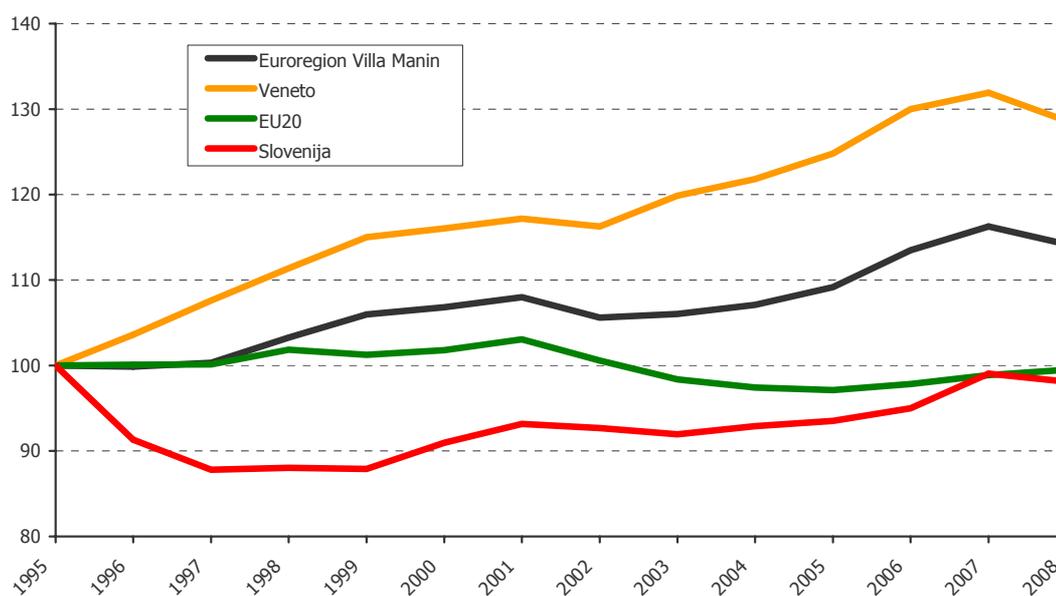
Note: added value in individual sectors in % of GDP, average 2000-2008
 Source: BAKBASEL

The graph also shows that some economic sectors have a far more important role in the Euroregion than in Europe. In order of size, they are the capital goods industry, consumer goods production and hotel and restaurant services. These sectors are analysed in greater detail, together with trade and transport and communications services, which are also important even if they belong to the economic segments whose percentage of GDP is similar in the Euroregion and in EU20.

from a considerable increase in exports to emerging countries, where new production sites often need the know-how and machinery used in advanced economies' manufacturing systems.

The considerable increase in added value in the Croatian counties and in Carinthia and Slovenia, higher than 6% a year, is partly due to the metallurgical industry (in Croatia) and partly to the highly productive segment of the production of precision tools, and medical and optical instruments (particularly strong in Carinthia).

Fig. 4-14 Evolution of employment in the capital goods industry



Note: index (1995 = 100)

Source: BAKBASEL

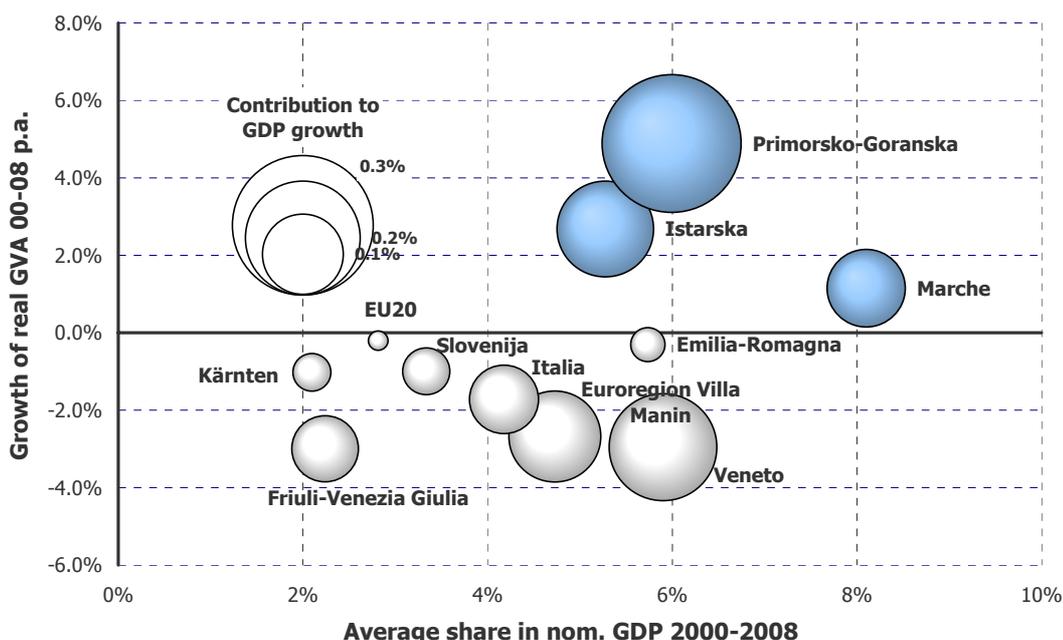
An interesting aspect of employment trends is that the capital goods industry in the Villa Manin Euroregion has been expanding continuously, apart from two periods of crisis, one in 2002 (the new economy crisis) and 2008 (the financial crisis). The increase in the number of employed (14% between 1995 and 2008) in the Euroregion is driven above all by the Veneto capital goods industry, which employed 30% more people during this period. The trend was different in Slovenia, where, after a slowdown in the second half of the 1990s, the situation gradually improved from 2000 onwards so that the number of persons employed in this sector was restored to the 1995 level.

The employment trend in this sector, overall, is a very favourable result for the Euroregion, especially when compared with the stagnation seen at European level.

4.3.2 The consumer goods industry

The consumer goods industry is composed of two sectors: (1) food, drink and tobacco; and (2) textiles, clothing and footwear. Both these industries have been undergoing growing international competition in recent decades. The liberalisation of the markets, and above all the reduction of manufacturing subsidies and the abolition of import taxes, have encouraged the globalisation of consumer goods production, manufacturing sites being moved to countries with low labour costs (first mainly in Asia and then in Eastern Europe too). The pressure of competition from these countries has been causing a pronounced fall in demand for Western European goods with a consequent reduction in manufacturing capacity. There are marked tendencies in the food industry towards the concentration of production in a small number of large-scale concerns in the attempt to cut down unit production costs and strengthen positions on world markets. The textile and clothing industry, on the other hand, demonstrates the effect of globalisation in all its magnitude, with entire production processes moving to countries with low labour costs.

Fig. 4-15 Consumer goods industry contribution to GDP growth

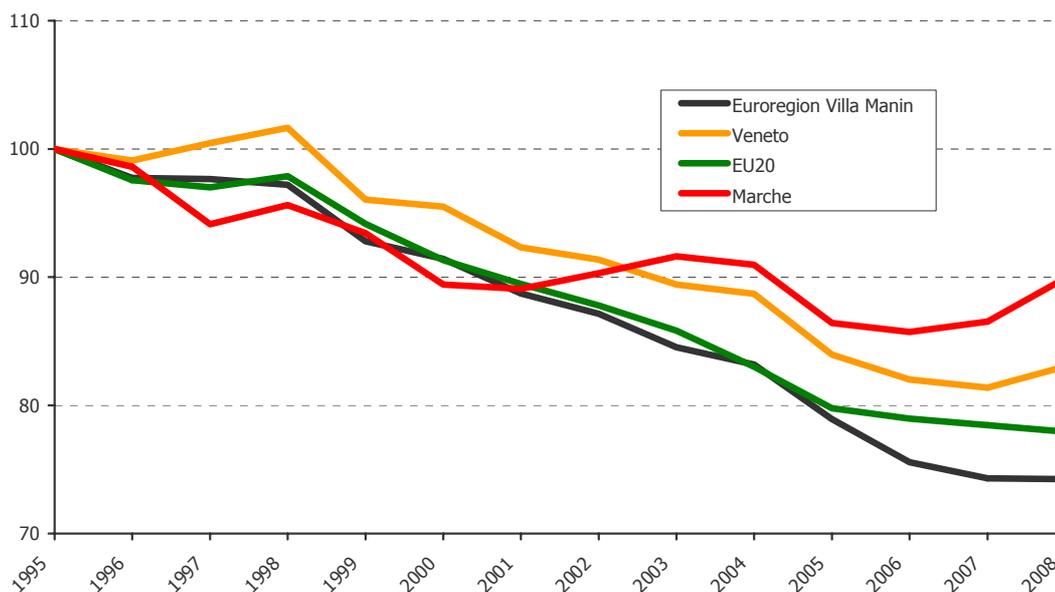


Note: in % per year, GDP in USD PPP, in 2000 prices
 Source: BAKBASEL

The process of the contraction of the consumer goods industry in the West went on during the period from 2000 to 2008, as we see in the graph above. Added value in this industrial sector fell most noticeably in Veneto and Friuli-Venezia Giulia, but also in Carinthia and Slovenia, and consequently the Villa Manin Euroregion average also fell (-2.7% per year on the average). The fall in added value in EU20, also including five Eastern European countries, was more limited thanks to the positive contribution from some of these countries.

The added value recorded by consumer goods industries in the Croatian counties rose during the period under observation thanks to the expansion of the food industry. A good result was also obtained in Marche, where the rise of about 1% was mainly due to the recovery of the traditional Made in Italy footwear manufacturing sector but also to food production. In this region, the industry in question accounted for an average of 8.1% of GDP, a very high figure compared with the 4.7% of the Villa Manin Euroregion and the European average of 2.8%.

Fig. 4-16 Evolution of employment in the consumer goods industry



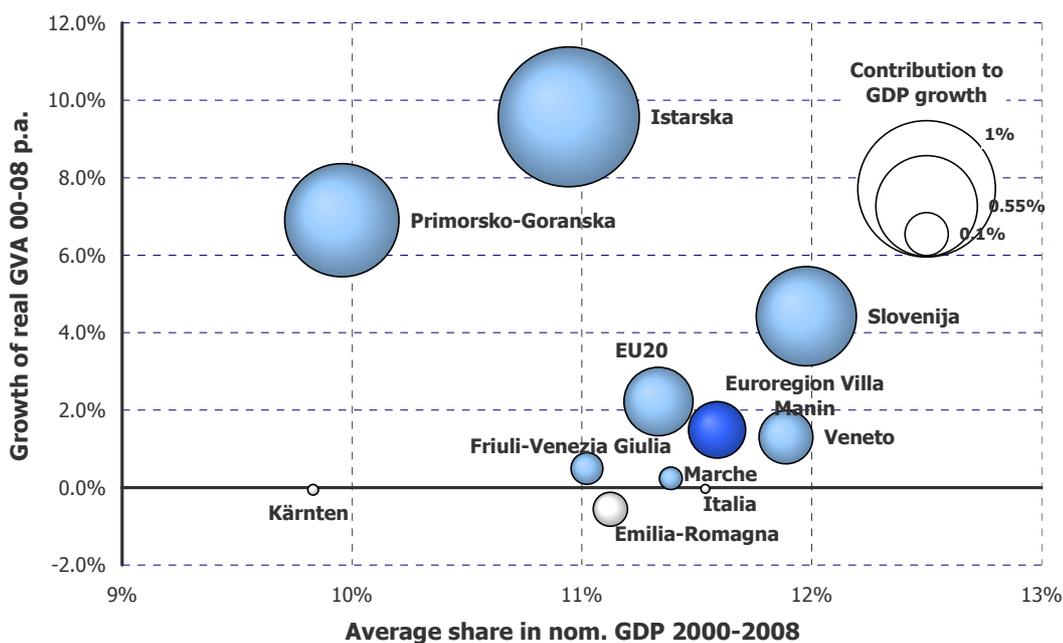
Note: index (1995 = 100)
Source: BAKBASEL

The great challenge from countries with low labour costs after the liberalisation of the markets and its consequences for Europe are seen in an exemplary fashion from the reduction in the number of persons employed in the consumer goods industry. In Europe, the number of jobs fell by an average of over 20% between 1995 and 2008. The drop was steeper still in the Euroregion (-25%), affecting all the parts of the area even if to different extents. The hardest hit were the Croatian counties and Slovenia, while the Italian regions managed to rein in the phenomenon to a certain extent, although they still lost more than 15% of their jobs. Marche was the region that underwent the least serious decrease in jobs in the consumer goods industry, only 10% in the period under observation.

4.3.3 Trade

In the European economies in general, almost half of this sector consists of wholesale trade, the remainder being retail trade and repairs, garages and petrol stations. This sector groups together services that depend on the economic cycle and foreign trade and services to the public, which are affected by consumption on the part of residents and visitors and purchasing power trends. The tendency is for wholesale trade to grow steadily, driven by import-export, while retail trade in Europe has to face practically saturated markets, particularly as regards the sale of food products and basic necessities. Productivity has to be increased in order to achieve expansion in the trade sector in spite of these difficulties, and in this the main success factor is technological progress. In many advanced economies, primarily the United States, but also Germany and Switzerland, the application of the new information and communication technologies on a wide scale during the last decades enabled trade to be transformed from a low-technology and low-productivity service to a modern industry. It is critically important, therefore, to invest in information and communication technology and to exploit scale economies, increasing the average sizes of retail outlets.

Fig. 4-17 Trade contribution to GDP growth

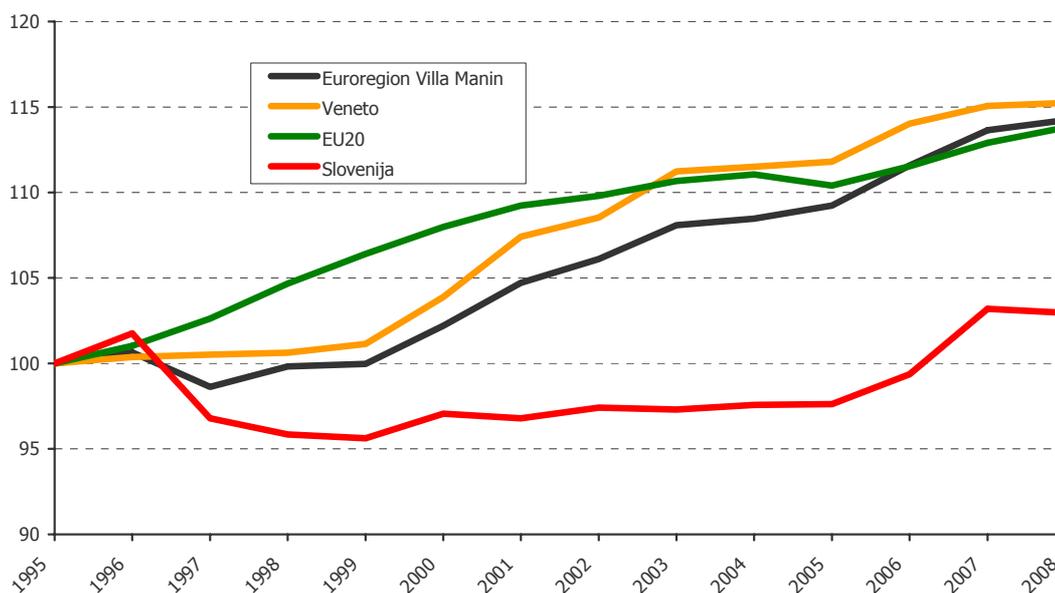


Note: in % per year, GDP in USD PPP, in 2000 prices
 Source: BAKBASEL

Trade has an important economic part to play in society (as a supplier of basic necessities) but also for the economy as a whole, producing approximately from 10% to 12% of GDP in all the geographic areas presented in this report. The parts of the Euroregion in which the trade sector is more important are Slovenia and Veneto, both very active in wholesale business, particularly import-export.

The Villa Manin Euroregion recorded a lower growth performance than the European average, with a rate of 1.5% per year between 2000 and 2008 (+2.2% in EU20), but better than the average for Italy, where the added value of the trade sector was stagnant. Italian trade has shown that it has not been capable of carrying out the structural transformation that has led to big increases in productivity in other European countries. Trade was stagnant in Carinthia too, while the leading areas in growth in this sector too were Slovenia and the Croatian counties, which took advantage of the greater purchasing power of their inhabitants and also of the success of their tourist destinations.

Fig. 4-18 Evolution of employment in trade



Note: Index (1995 = 100)

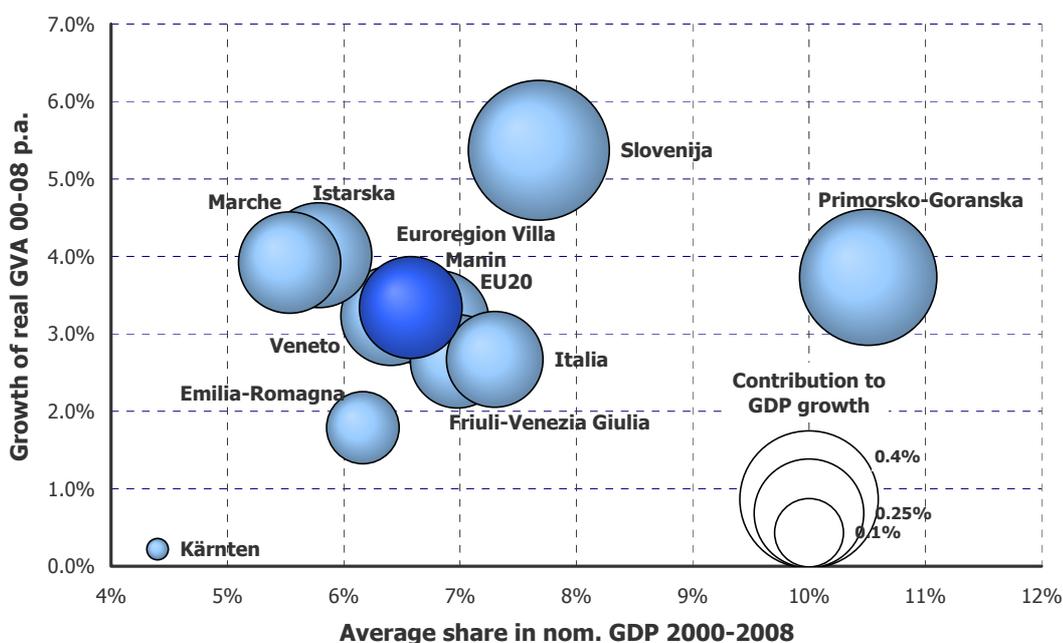
Source: BAKBASEL

Trade also has a very important part to play in the labour market: about 14% of the persons in employment in the Villa Manin Euroregion work in this sector. The number of persons with jobs increased by almost 15% between 1995 and 2008, both in the Euroregion and as a European average. Jobs in trade rose in Veneto too (and in Italy in general), while in Slovenia the fall in the 1990s was followed by an expansion phase after 2004, the year in which the country joined the European Union.

4.3.4 Transport and communications services

The transport and communications services sector includes transport services (road, rail, air and sea), logistics, travel agencies, post offices and telecommunications. Most of these services have been substantially affected by the process of the liberalisation of the European markets. Radical changes have been seen in the last 20 years, above all in communications and air transport, which were among the first sectors privatised in the 1990s in almost all Western European countries. Communications services proved to be a particularly attractive market with a high growth potential owing to the continual innovations in the field of communications technology that create new markets, such as internet. The pressure of competition is also felt in transport after partial liberalisation, even if most of the infrastructures are still mainly public property. The transport segment has a structurally lower growth potential than communications because its infrastructures are more expensive and much more massive investment is needed to make changes to them.

Fig. 4-19 Transport and communications contribution to GDP growth



Note: in % per year, GDP in USD PPP at 2000 prices.
Source: BAKBASEL

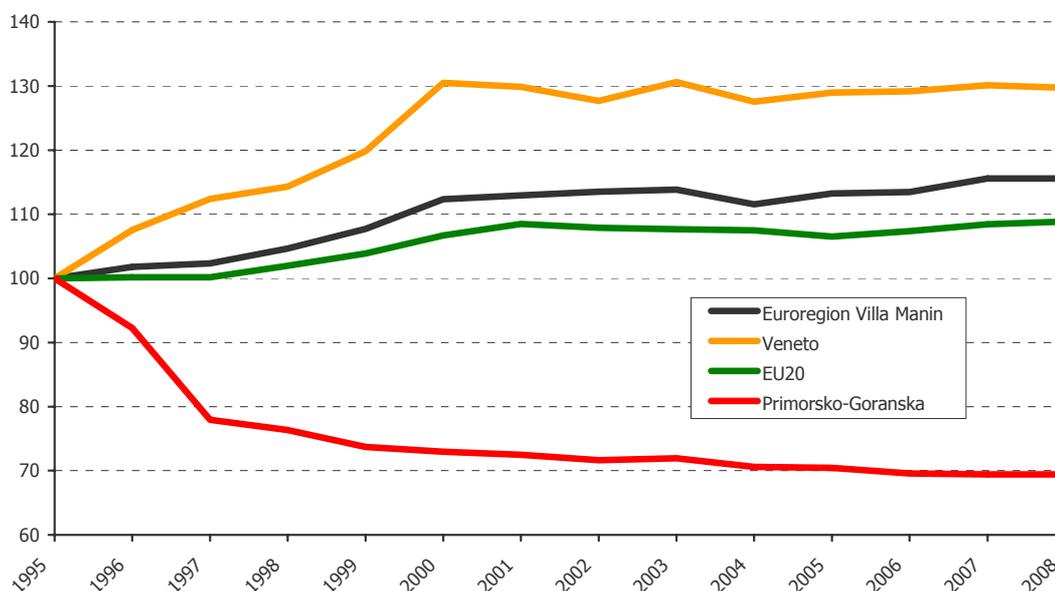
This economic sector is of particular importance to the Villa Manin Euroregion, as it is an area that is the crossroads between east and west, also disposing of an extensive port system (there are ports at Venice, Trieste, Koper and Rijeka). The added value of the transport and communications sector produces 6.6% of GDP in the Euroregion, against a European average of 6.8%. There is a difference behind these similar percentages: transport (5.0% of GDP) accounts for a higher proportion than the European average of 4.5%, while post office and telecommunications services are less important (1.6% of GDP compared with 2.3%). One

reason for this difference is the strategic function of the Euroregion’s transport routes, both by land and by sea, within the communications of the new Europe enlarged eastwards, while the delivery of communications services tends to be concentrated in big cities and state capitals (which, apart from Ljubljana, are outside the Villa Manin Euroregion area).

Primorsko-Goranska stands in the graph with 10.5% of GDP generated by transport and communications. The port of Rijeka plays a fundamentally important role in this small, poor county, strongly stimulating the other segments of transport services and other logistics activities in particular, which arrange for the goods that arrive at Rijeka to continue their journey (for example to Zagabria); and also driving the economy in general.

Value added growth in this sector in the Villa Manin Euroregion is at a rate that is very similar to the European and Veneto average (+3.2% to +3.3% per year) and higher than the Italian average. An interesting point is that telecommunications are the driving segment in all these areas, while transport grows at a slower rate. The difference in favour of Slovenia with respect to the Euroregion is due first of all to the high performance of communications in that country (+7.5% per year on the average), and secondly to transport. The rise in the added value of transport was only higher than that of communications in Primorsko-Goranska, which confirms the increasing importance of the Port of Rijeka and the logistics connected with it.

Fig. 4-20 Evolution of employment in the transport and communications sector



Note: Index (1995 = 100)
Source: BAKBASEL

There were marked changes in employment in this sector in the second half of the 1990s, favourable in Veneto (and the other Italian regions) but unfavourable in Primorsko-Goranska (and Istria). The situation has been improving since 2000, however, and the number of persons in employment in the transport and communications sector is tending to stabilise.

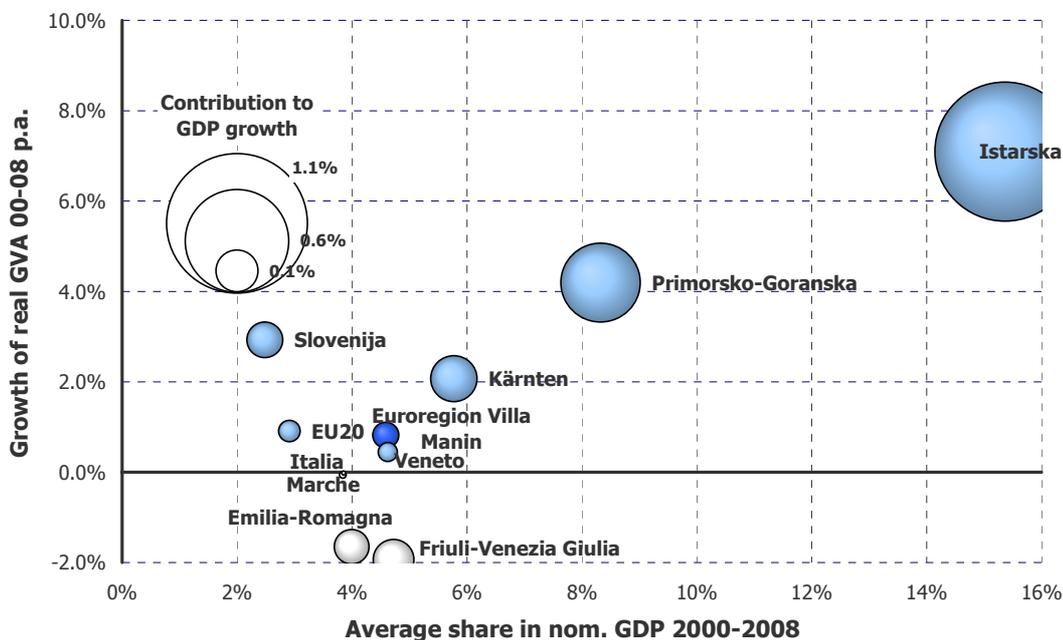
5 The tourism economy

Tourism is a particularly important sector for the Villa Manin Euroregion and is of more than one type: seaside (above all in the Croatian counties and Veneto), mountain (in Slovenia and Carinthia, but also in Veneto and Friuli-Venezia Giulia) and cultural in the cities (with Venice and Verona in the front line). Our survey of the tourism sector is divided into two parts: (1) analysis of economic performance and (2) observation of competitiveness factors in tourism, with regard to both supply and demand.

5.1 Economic performance

Tourism is neither classified nor measured as an economic sector in its own right, but is spread over various economic segments. An important segment is made up of hotels and restaurants, but these only stand for a part of the economic effects of tourism. Other effects are particularly felt in transport and retail trade, which receive an indirect gain from the presence of visitors. Added value and employment in the hotel and restaurant segment are used to make the analysis practicable. In this section on the performance of tourism, we shall start from an analysis of its contribution to GDP growth. Afterwards we shall see employment trends in this segment and finally hotel visitor night trends and the rate of hotel room occupancy.

Fig. 5-1 Hotel and restaurant contribution to GDP growth



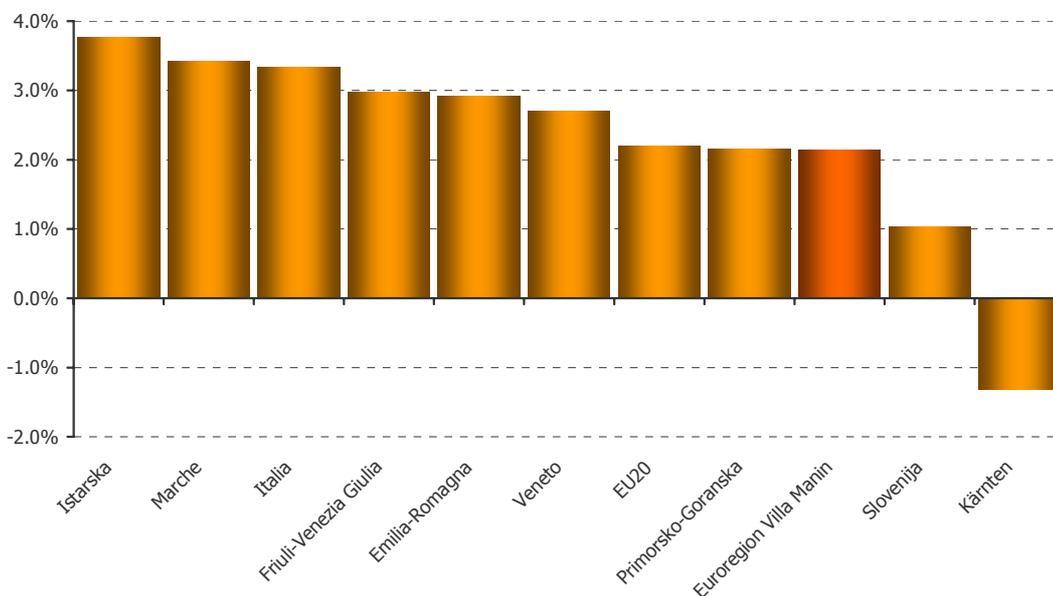
Note: in % per year, GDP in USD PPP, in 2000 prices
 Source: BAKBASEL

The bubble graph shows tourism’s dominant role in the Croatian counties, Istria particularly, where the hotel and restaurant segment generates an average of 15% of GDP. The two Croatian counties also achieve the best performance in added value growth (+7.1% on the average between 2000 and 2008 in Istria and +4.2% in Primorsko-Goranska). The contribution to GDP growth from hotels and restaurants in Istria was very substantial (+0.6% per year), showing that tourism has strong growth potential in these areas.

In the Euroregion as a whole, the hotel and restaurant segment has a 4.5% share of GDP, while the European average is around 3%. Added value growth in both areas, however, has been slightly lower than 1% per year. After the Croatian counties, Carinthia also owes more to tourism than the Villa Manin Euroregion average, both in terms of share of GDP (+5.8%) and growth (2.8% per year). Slovenia, too, attained a growth rate of nearly 3% in the hotel and restaurant segment, which, however, contributes less to the country’s overall economy than the rest of the Euroregion.

Unlike the other parts of the Euroregion, the Italian regions recorded a lower growth rate: Veneto an increase of 0.4% a year while Friuli-Venezia Giulia shrank by nearly -2%. Emilia-Romagna, one of the two benchmark regions, also returned a negative result, while Marche and the Italian average are stagnant. The performance of this segment is highly important for the Italian regions compared with each other in this report, because its share of GDP is between 4% and 5%.

Fig. 5-2 Evolution of employment in hotels and restaurants, 2000-2008



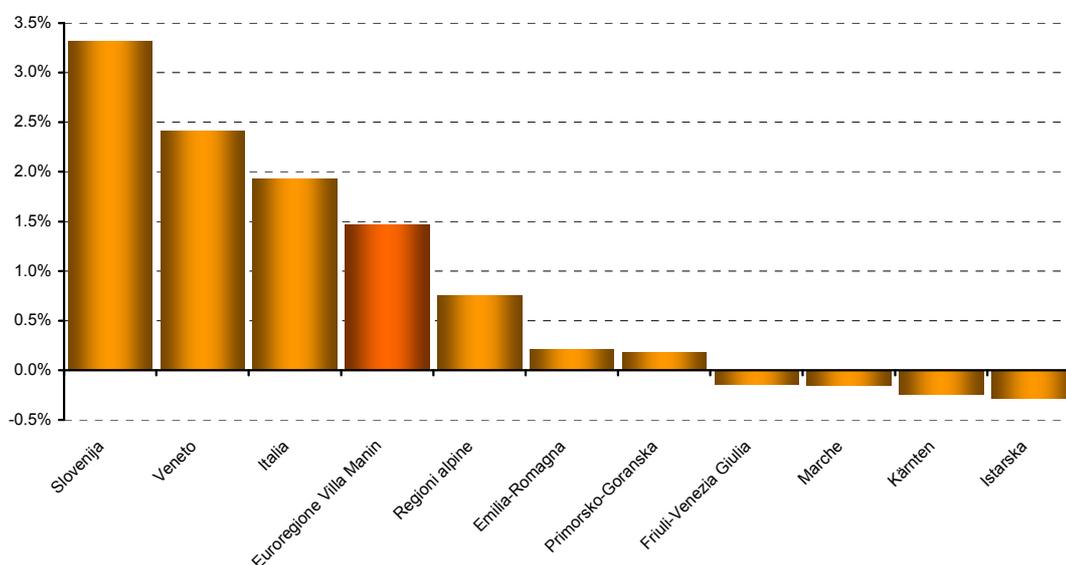
Note: Average annual change in %
Source: BAKBASEL

Consistently with robust added value growth, the number of persons with jobs in hotels and restaurants in Istria also increased considerably during the period between 2000 and 2008 (+3.8% per year). Employment rose in almost all the parts of the Villa Manin Euroregion except

Carinthia. The mean rise in persons working in hotels and restaurants in the Euroregion was 2.1% a year, similar to the European average. The Italian regions in particular employed considerably more persons in tourism, a factor that is linked to the growth in total employment, thanks to the immigration policies that enabled many people that had entered the country to regularise their position in the early years of the millennium.

Another fundamentally important indicator for tourism performance is the number of nights stayed. It is important to distinguish between nights in hotels and similar establishments (boarding houses, motels and tourist villages) and nights stayed in general, namely in all forms of accommodation (including camps and rented holiday flats). Accommodation with private persons is not included in these statistics.

Fig. 5-3 Evolution of hotel nights, 2002-2007



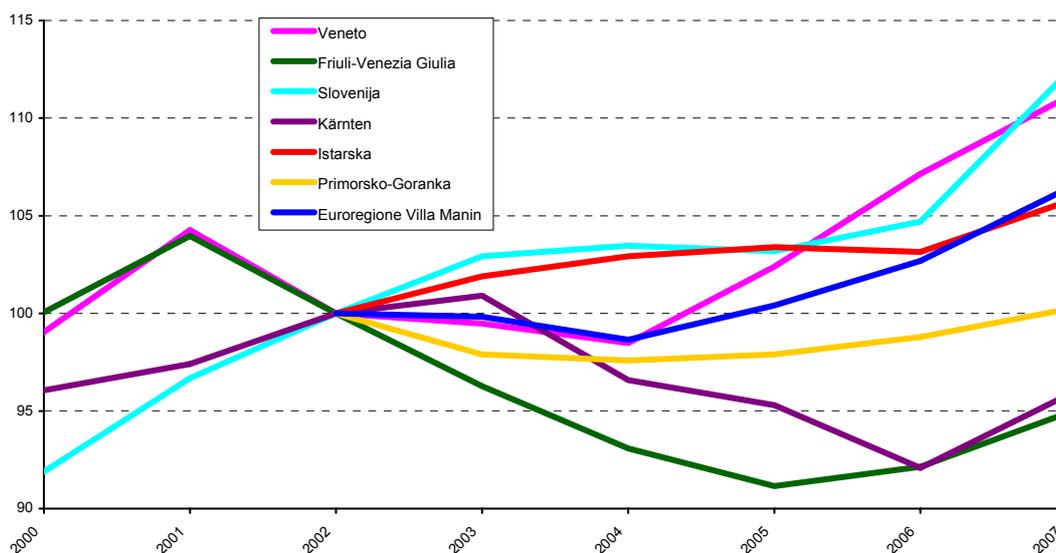
Note: average % annual variation. Data regarding the Croatian counties only available from 2002.
Source: Eurostat, Crostat for Croatian counties, BAKBASEL for alpine regions.

The graph above shows the trend of the number of visitor nights in hotels (and in tourist villages with hotel-type services) between 2002 and 2007 (this period was chosen on the basis of the availability of data). The Villa Manin Euroregion achieved growth of about 1.5% on the average per year, lower than the Italian figure. As about 50% of visitor nights in the Euroregion are not generally in hotels, it is important to compare hotel nights with nights in all establishments (see graph below).

Slovenia has the highest rate of increase in visitor nights both in hotels (+3.5% a year from 2000 to 2007) and in all establishments (+2.3% a year). More than 60% of the nights were spent in hotels. In recent years, Slovenia has become one of the favourite destinations for visitors to the Alps.

Veneto also has a relatively strong performance both in hotels and all establishments (respectively +2.4% and +2.1% a year). Thanks to the cities of Venice and Verona, which draw visitors from all over the world, Veneto has the highest number of tourists per year than any other Italian region. Friuli-Venezia Giulia, on the other hand, is in a more critical position, with a sharp drop in visitor nights between 2001 and 2005.

Fig. 5-4 Trend of visitor nights in all establishments



Note: Index (2002 = 100). Data regarding the Croatian counties only available from 2002.
Source: Eurostat, Crostat for Croatian counties

In spite of the fall in the number of hotel nights, there was an increase in the nights spent in all forms of accommodation as a whole in Istria (+1.1% a year), due to the increase in nights in camps above all, but also in holiday flats and villas. The visitor nights trend does not seem able to explain the great contribution to GDP growth from the hotel and restaurant sector, as shown in graph 5-1. The same applies to Primorsko-Goranska. The reason for this apparent contradiction, however, is the change in the structure of tourism in Croatia that has taken place during this decade, particularly in Istria. In the 1990s tourism in Croatia was a mass phenomenon, while recently a more individual type of tourism is being developed, based on cultural and environmental factors. Considerable sums are put into projects offering new tourist segments (natural attractions, agritourism, food and wine, bicycle tours, etc.).⁵ This new type of tourism does not entail a high increase in nights spent, but improves the quality of supply, pushing it up towards higher added value segments.

The increase in visitor nights in the Villa Manin Euroregion is mainly driven by Veneto and Slovenia. "Alpine regions"⁶ is given for benchmarking purposes; this is a typical European tourist area of global importance, with a structure partly similar to that of the Euroregion. Although the

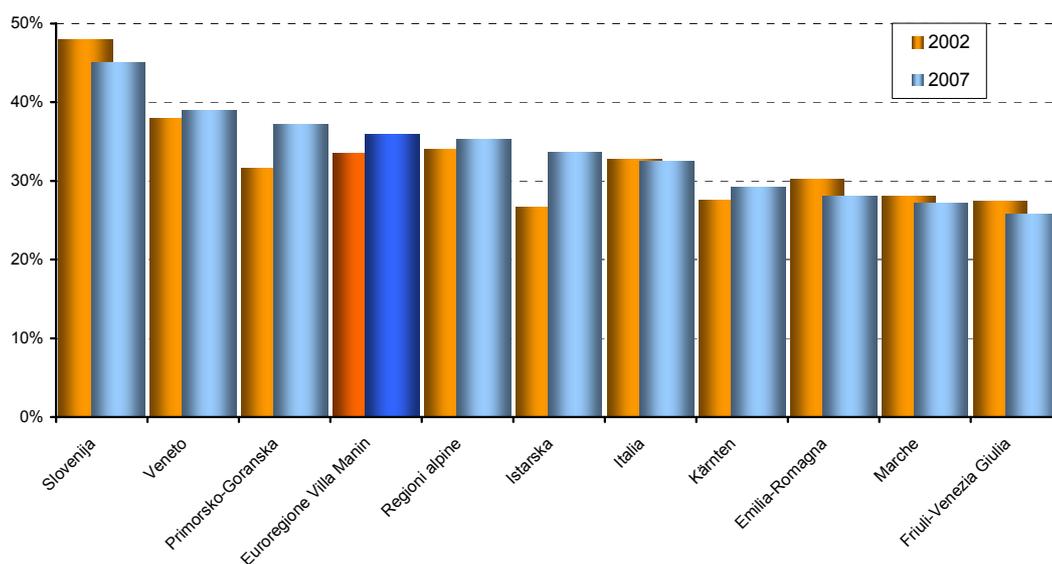
⁵ See Region of Istria, Masterplan of Tourism, <http://www.istra-istria.hr/index.php?id=637>

⁶ BAKBASEL defines as "Alpine regions" as the areas of the Alps in Austria, France, Germany, Italy, Slovenia and Switzerland.

Alpine regions have no seaside tourism, various parts of the Villa Manin Euroregion tend towards mountain tourism (Carinthia, Slovenia, the Province of Belluno) The growth rate of visitor nights in the Euroregion is double that of the Alpine regions.

Apart from the market share of tourism (seen in terms of added value and visitor nights), another key factor to measure the success of a region in the tourism sector is the rate of hotel room occupancy. This shows the extent to which hotel capacity is utilised throughout the year and is a sign of a hotel’s operational efficiency.

Fig. 5-5 Annual hotel room occupancy rate



Note: 2002, 2007, (hotel nights/(number of hotel beds *365)) * 100
 Source: Eurostat, Crostat for Croatian counties, BAKBASEL for Alpine Regions.

Both in 2002 and 2007, Slovenia had the highest hotel room occupancy in the Villa Manin Euroregion, but also within the Alps as a whole, revealing a high degree of efficiency of its hotel industry in that it supplies a number of beds that is appropriate to demand. This means that hotel owners succeed in managing supply in such a way as to earn a good profit from tourism so that they can then invest in further improving the quality of supply. The slight drop in employment between 2002 and 2007 is due to an increase in room capacity that was faster than the increase in demand.

The occupancy rate in the other regions varies from 38% in Veneto to 25% in Friuli-Venezia Giulia. The advantage of Veneto is that its tourist range is so varied that it does not depend on a single factor. Venice in particular is an all-round-the-year attraction for different classes of visitors. In Friuli-Venezia Giulia there is falling demand as opposed to considerable supply. The benchmark regions, Emilia-Romagna and Marche, also have a low occupancy rate, the main reason being that they concentrate on summer visitors.

The occupancy rate in the Croatian counties is significantly higher in 2007 than it was in 2002. Although there has been a reduction in visitor nights, hotels have shown that they have become noticeably more efficient in the past few years.

The average room occupancy rate in the Villa Manin Euroregion was 36% in 2007, their efficiency being practically the same as the Alps.

To sum up, tourism performance in the Villa Manin Euroregion is quite good. This economic sector is growing fast in the Croatian counties and also seems to have high potential in Slovenia. Slovenia and Veneto are enjoying a continuous increase in the number of visitor nights and prove to be very efficient tourist areas.

5.2 Tourism competitiveness factors

What makes some regions more successful than others in tourist activity? There are various factors affecting the competitiveness of a tourist area. The study below is divided into two parts: one on supply factors and the other on demand factors.

5.2.1 Tourism supply

There are a number of structural aspects that can enhance the competitiveness of a tourist destination. The supply factors considered here, which are confined to the hotel segment, are the number of beds, the number of hotels and average hotel size. Table 4-2 shows these indicators and the variations in them between 2002 and 2007.

In the table, the parts of the Villa Manin Euroregion are ranked according to the number of beds in 2007: Veneto is the area with the highest number of hotel beds (209,400), accounting for almost half of all the supply of beds in the Euroregion. It is followed at a great distance by Carinthia, Istria and the other parts of the Euroregion.

With an average of 65 beds per hotel, the Villa Manin Euroregion has a similar structure to the Italian average and the benchmark regions, Emilia-Romagna and Marche. The hotels in the Alps tend to be smaller, with an average of 42 beds. The reason for this is the different type of terrain and tight spaces in the mountains, while by the sea there are vast areas free for big hotels and tourist villages.

The Villa Manin Euroregion figure is mostly affected by the size of Veneto hotels (64 beds on the average). Carinthia has smaller establishments on the whole, while the Croatian counties stand out with an average hotel size of 195 beds in Primorsko-Goranska and no fewer than 404 beds in Istria. Here we see a fundamental difference in hotel structure between the Alps and the Italian regions on one hand and the Croatian counties on the other. In the Croatian counties, and above all in Istria, hotels or hotel structures with 500 beds and more are not exceptional, and there are even hotels with 1,500 beds.

The trend of hotel size is particularly interesting, because it may reveal structural changes in supply. Generally speaking, a trend towards larger hotels is to be seen in Europe, to increase efficiency and reduce hotel bed unit costs (scale economies).

Tab. 5-1 Number of Beds, Number of Hotels, average Hotel Size

		2002	2007	Average annual change
Regione Veneto	Number of beds	190.967	209.420	1,9%
	Number of hotels	3.193	3.269	0,5%
	Average Size of hotels	60	64	1,4%
Bundesland Kärnten	Number of beds	70.176	65.497	-1,4%
	Number of hotels	2.192	1.928	-2,5%
	Average Size of hotels	32	34	1,2%
Istarska	Number of beds	71.194	55.793	-4,8%
	Number of hotels	150	138	-1,7%
	Average Size of hotels	475	404	-3,2%
Regione Friuli Venezia Giulia	Number of beds	36.464	38.512	1,1%
	Number of hotels	722	736	0,4%
	Average Size of hotels	51	52	0,7%
Slovenija	Number of beds	25.062	31.383	4,6%
	Number of hotels	393	396	0,2%
	Average Size of hotels	64	79	4,4%
Primorsko-Goranska	Number of beds	32.762	28.086	-3,0%
	Number of hotels	157	144	-1,7%
	Average Size of hotels	209	195	-1,3%
Euroregione Villa Manin	Number of beds	426.625	428.691	0,1%
	Number of hotels	6.807	6.611	-0,6%
	Average Size of hotels	63	65	0,7%
Emilia-Romagna	Number of beds	272.587	295.938	1,7%
	Number of hotels	4.889	4.688	-0,8%
	Average Size of hotels	56	63	2,5%
Marche	Number of beds	59.745	61.290	0,5%
	Number of hotels	1.093	968	-2,4%
	Average Size of hotels	55	63	3,0%
Italia	Number of beds	1.929.544	2.142.786	2,1%
	Number of hotels	33.411	34.058	0,4%
	Average Size of hotels	58	63	1,7%
Alpine Regions	Number of beds	1.195.793	1.195.556	0,0%
	Number of hotels	29.879	28.347	-1,1%
	Average Size of hotels	40	42	1,1%

Source: Several Statistical Offices and BAKBASEL

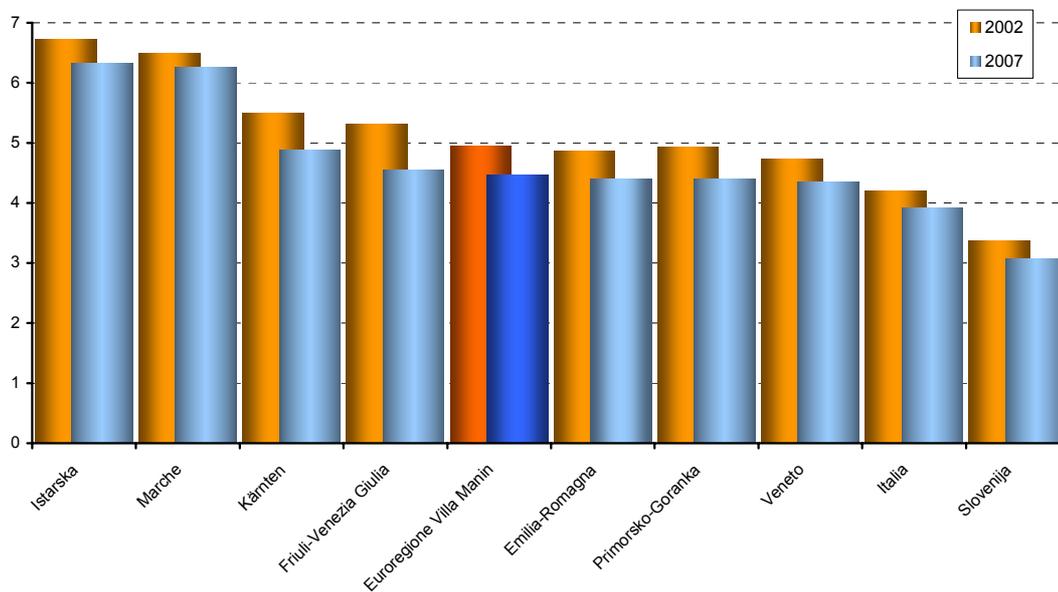
Although an increase in hotel size should generally improve efficiency, obviously in the Croatian counties the opposite strategy should be pursued, in the attempt to cut down average hotel size and invest in quality rather than quantity: for example, by increasing the range of four- or five-star hotels or modernising already existing medium-sized and small hotels (some efforts in this direction are already being made). As we have already said, there are also large-scale projects for developing a type of tourism directed towards natural and cultural attractions. To these are added plans for hotels specialising in families. The main aim of this structural transformation is to improve the quality of supply in the segment of the market for visitors with high purchasing power.

5.2.2 Tourism Demand

If we seek the factors that determine the competitiveness of a tourist area in terms of demand, we measure the “quantity” of tourists (visitor nights), and the length and season of their stay. Then we look at the most important markets (namely where the tourists come from), concluding with the tourist density of the area.

Visitor night distribution in the different parts of the Villa Manin Euroregion roughly corresponds to the number of hotels; more than half of the demand is concentrated in the Veneto Region, a quarter equally divided between Carinthia and Istria and the rest is spread among the other areas.

Fig. 5-6 Average length of stay



Note: Nights/arrivals in all establishments
 Source: Eurostat, Crostat for the Croatian Counties

Length of stay is calculated by dividing visitor nights by the number of arrivals. The longer a destination can keep visitors, the more it benefits. The data on the average length of stay in the different parts of the Villa Manin Euroregion and the benchmark regions, however, generally tell

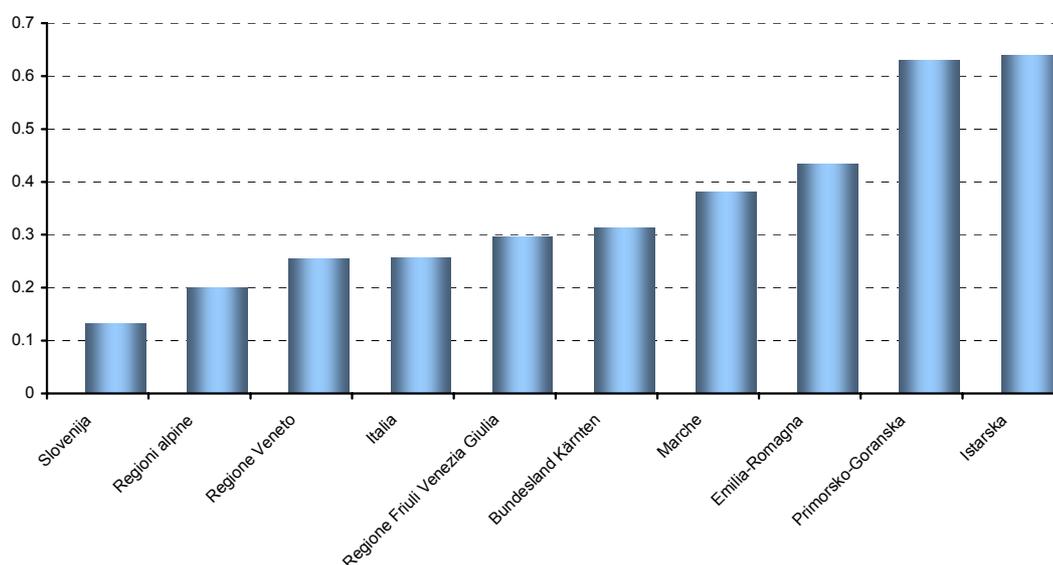
the opposite story: stays became shorter between 2002 and 2007. The average tourist prefers to have shorter holidays and have more of them during the year. This change in tourists' interests is seen in almost all tourist destinations, and makes it necessary to provide increasingly differentiated products to increase the attractiveness of the destination in the eyes of tourists that are now looking for new, special experiences.

The average length of stay in the Villa Manin Euroregion was almost 4.5 days in 2007. The longest average stay was recorded in Istria (more than 6 days), while in Slovenia the average stay was 3 days. Istria and Slovenia are at the opposite extremes, representing two very different types of tourism.

It is mainly Istria that is maintaining its position in Istria, especially in camps, where typical visitors want relaxation, the sun and the sea, and are happy to stay at least a week, especially if they come from abroad. Nevertheless length of stay has become shorter in Istria too, owing to shorter journey times and lower travel costs (principally owing to the higher number of low-cost flights to Croatia), which even allow people to spend just a weekend in Istria.

Stays are shorter in Slovenia for two main reasons: the important role played by mountain holidays, which tend to be shorter than seaside holidays, and the extent of domestic demand, which involves shorter journeys and makes it easier to go for frequent short holidays.

Fig. 5-7 Seasonality – GINI coefficient



Note: the data are for hotel nights except for the Croatian counties, where they are for all establishments (owing to the lack of monthly hotel data). The Villa Manin Euroregion average cannot be calculated for this reason. Source: Eurostat, BAKBASEL estimates for Croatian counties on basis of Crostat data.

Gini coefficient

The Gini coefficient is an indicator of the seasonality of demand. A low coefficient is a sign of demand distributed in a balanced manner over the 12 months of the year. If demand is the same in all months, the value of the coefficient tends towards 0. If the volume of demand is concentrated on one month, the coefficient tends towards 1.

Distribution of demand during the year is a further important element that characterises demand in the tourist economy and allows its competitiveness to be assessed. A destination for which demand is equally distributed over the seasons has a competitive advantage because its existing capacities are better utilised. If there is a great variation in demand between one season and another, it is almost impossible to achieve a high room occupancy rate because rooms are only exploited during a few peak months and are empty in low season. Demand strongly concentrated on a small number of months also causes competitive disadvantages in the form of disproportionate supply and traffic congestion problems.

The Gini coefficient, shown in the graph above, is an indicator of how nights are distributed over the months of the year: it therefore indicates the seasonality of demand. The graph shows that the Croatian counties have the greatest fluctuations in demand during the year: about 60% of visitor nights in these areas are concentrated in July and August. To reduce this competitive disadvantage, the Croatian counties should also be publicised among brackets of society that are interested in having quieter holidays out of high season (such as retired and childless couples). In this way visitor nights would be better distributed over the year. The promotion of Croatia as a cultural destination could also help to achieve this aim.

While seasonality for Croatian counties is accentuated by the fact that camps are included in the calculation of the Gini coefficient (they can only be used in the summer), the figures for the other typically seaside regions, Emilia-Romagna and Marche, confirm that seaside tourism is very seasonal (with hotels almost empty or closed in the winter).

Slovenia is at the other extreme, with the lowest Gini coefficient, indicating that the distribution of visitor nights in this country is the most balanced. Unlike seaside tourism, which is concentrated in the summer, mountain tourism (which is important in Slovenia, as it is in the Alps) is distributed almost equally over all the months of the year (even if the summer is again the season that visitors prefer). Veneto has the second most balanced distribution of tourism over the year thanks to its mix of seaside, mountain and spa tourism and, above all, cultural tourism in the cities. The relatively low seasonality of tourism in Veneto is a competitive advantage because it allows the available facilities to be used on a more continuous basis.

Tab. 5-2 Visitor nights by country of residence, 2007

	Domestic (entire country)	Foreign				
		DE	FR	IT	AT	Others
Veneto	39,2%	13,1%	4,5%	-	5,8%	37,3%
Kärnten	40,1%	36,8%	0,4%	6,0%	-	16,6%
Friuli Venezia Giulia	57,0%	6,5%	1,3%	-	15,7%	19,4%
Slovenija	41,1%	7,8%	1,5%	11,0%	8,1%	30,6%
Primorsko-Goranska	12,8%	22,9%	1,2%	12,6%	9,9%	40,6%
Istarska	4,2%	28,0%	1,2%	13,5%	10,6%	42,5%

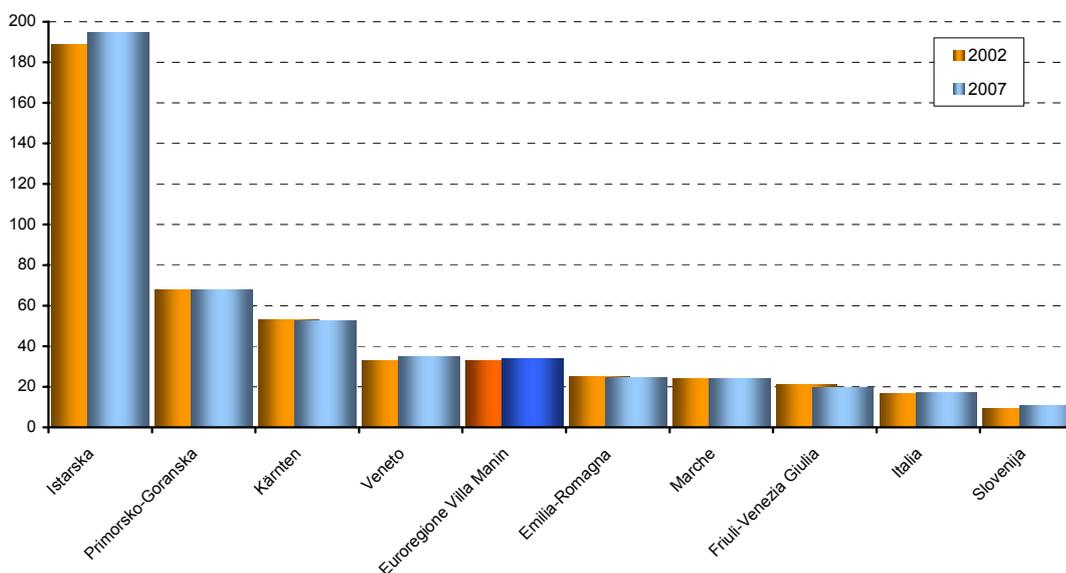
Note: The data refers to nights in hotels, except for Slovenia and the Croatian counties (all establishments)
Source: BAKBASEL, several Offices of Statistics

The competitiveness of a tourist destination can also be assessed by looking at the degree to which demand is globalised. Visitor nights shown by country of residence indicate how much a destination is known abroad. Destinations with a high percentage of foreign visitors are more visible on the international market and have more possibilities of growth by exploiting markets in the emerging countries.

With a percentage of 96% and 87% respectively of foreign tourists in 2007, the two Croatian counties are the Villa Manin Euroregion countries with the highest degree of tourist internationalisation (see Table 4-3). Croatian resorts are most appreciated by visitors from Germany (28% of visitor nights) but Italy, Austria and Slovenia are also important markets for Croatian tourism.

Domestic demand plays an important part in the other parts of the Euroregion, with domestic visitor nights varying from 39% in Veneto to 57% in Friuli-Venezia Giulia. It is also seen that the German market is of great interest to Carinthia, while Friuli-Venezia Giulia has a substantial proportion of Austrian visitors. Veneto's target market is the whole of Europe, but demand from over the ocean is also important (headed by the United States).

Fig. 5-8 Tourist density



Note: (nights in all establishments/365) / population * 1000
 Source: BAKBASEL

Tourist density is a very useful indicator for forming a final picture of the importance of tourism in the various areas studied. It is calculated relating visitor nights in all establishments to the resident population, resulting in a measurement of the density of tourist presence. Generally speaking a high density is an advantage for visitors, because it means that the chosen destination has a complete range of tourist services. Furthermore, a high density produces network and cluster advantages that all the enterprises operating in the field of tourism benefit from, and has favourable effects on the productivity of the sector, which is good for the entire economy.

The tourist density graph confirms the extremely high ratio of tourists present in Istria (195 visitor nights per 1,000 inhabitants) and the low intensity of tourism in Slovenia (11). For Istria, we should draw attention to the fact that such a high tourist density is no longer a competitive advantage: instead of this, it may constitute a risk for the economy and society in general. The Euroregion average is 34 visitor nights per 1,000 inhabitants, a figure that is very similar to that of Veneto. Tourist density on the average in Italy, on the other hand, is lower, at 17.

6 Economic attractiveness

The economic performance is not only determined by the specialization in the different industrial sectors and services, but it is also influenced by different location factors. The quality of location factors determines the economic attractiveness of a region for new enterprises as well as for the firms already located in the region and for the human capital. Of course there is a large variety of location factors which can influence the economic performance and are important for the choices of economic policies. This chapter measures and compares the quality of the following location factors: the accessibility and the infrastructure of transport systems, the innovation capacity and the market regulation.

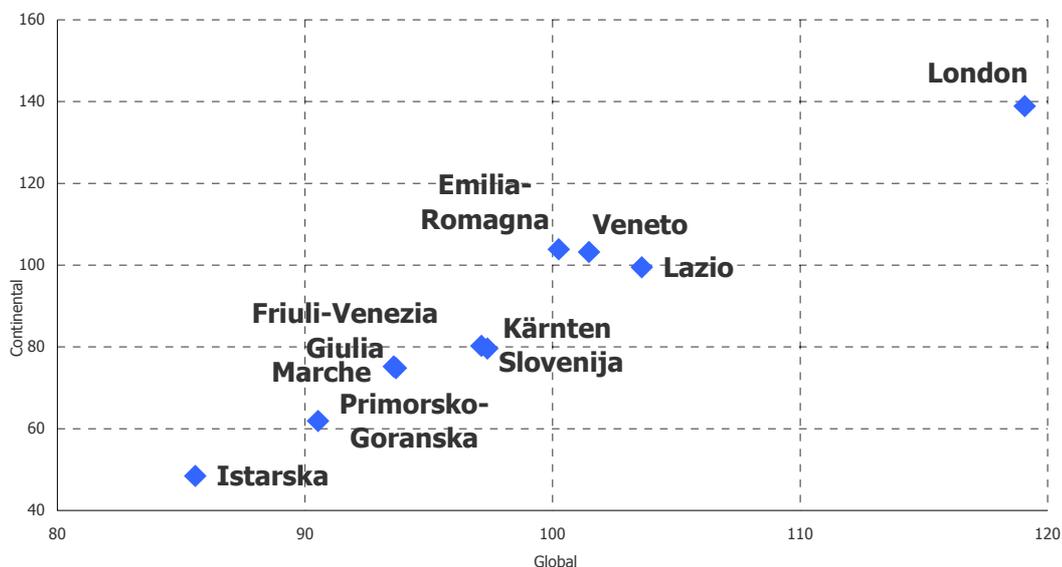
The indicators chosen by BAKBASEL for the regional benchmarking of the location factors' quality generally reflect the following aspects:

- 1) they influence in a decisive way the economic choices of the firms, e.g. the location of the production or the setting up of a company, and of the human capital.
- 2) they can be influenced by the policies of the governments;
- 3) they can be measured by an objective, quantitative and comparable approach.

6.1 Accessibility and transportation infrastructure

6.1.1 Accessibility Index

Fig. 6-1 Index of global and continental accessibility



Note: 2006, index (average accessibility in Europe/USA in 2002 = 100)

Source: BAKBASEL, Model based on data of the Institut für Verkehrsplanung und Transportsysteme (IVT) der ETH Zürich.

In a global economy, the connections of a region to the rest of the world play an important role for a region's attractiveness as a business location. The indicators shown in figure 6-1 are 1) the global accessibility index (average Europe/USA 2002=100) reflecting the outbound accessibility from a region to locations in the rest of the world outside Europe and 2) the continental accessibility index (average Europe/USA 2002=100) measuring the outbound accessibility from a region to all other regions in Europe. The accessibility of a region depends on its geographical location and on its infrastructure (transport system).

Accessibility Model of BAKBASEL

This model measures the ease or difficulty with which one reaches other regions from a given region. The BAKBASEL model considers as indicators the travel time (including connection times and check-in times) from more than 300 departure cities to as many destination cities. The values are weighted by the GDP of the destination cities. The travel time for global accessibility is the fastest flight and for continental accessibility, it is the fastest possible connection by train, airplane or car.

For a region's global accessibility, or how well a region connects with the rest of the world, geographical location is less important than its connections to one of the large intercontinental airports. Not surprisingly, London as a world transportation hub performs best (see fig. 6-1).

The global accessibility of the Italian region of Lazio with Roma Fiumicino, the most important national airport in Italy is above average, but it is much lower than that of London. The index of global accessibility of Villa Manin's sub-regions is highest in Veneto where the intercontinental airport Venezia (Marco Polo) is located, followed by Ljubljana (Slovenija) with an airport also offering direct intercontinental connections (see table 6-1). For the global accessibility of the Northern Italian regions, the airport of Milano also plays its part. Kärnten is about as globally accessible as Ljubljana. Although the airport in Klagenfurt does not offer direct intercontinental flights, its connections to the nearest world airport (Vienna) seem to be good. Friuli-Venezia Giulia and Marche have a lower index of global accessibility. The Croatian region Istarska is the lowest of the sample and it lags clearly behind the other sub-regions of Villa Manin.

In measuring continental accessibility, regions located close to the economic centres of Europe have a clear advantage. In addition, the continental accessibility is higher in regions where a larger airport is located. Because of their geographical position, the index of continental accessibility of the Italian regions Veneto and Emilia-Romagna is higher than that of Lazio. Friuli-Venezia Giulia is slightly less continentally accessible than Slovenia and Kärnten. The Croatian regions again perform poorly.

Overall it can be seen from figure 6-1 that nearly all sub-regions of the Euroregion Villa Manin have an index of both global as well as continental accessibility below the average. Only the sub-region Veneto has a better position in both indices and it is slightly above the average. For Villa Manin to improve its global accessibility, it would need to improve its connections to global airports. Particularly, Friuli-Venezia Giulia and the Croatian regions should improve their connectivity.

Apart from geographical position, accessibility depends on the transport system; the infrastructure of Euroregion Villa Manin will therefore be examined in more detail in the next section.

6.1.2 Transportation Infrastructure

Table 6-1 shows the most important airports and their total passengers in the sub-regions of Villa Manin and its benchmarking regions. All regions have at least one 'main' airport handling 150.000 or more passengers per year.⁷ Large or very large airports handling at least 1,5 million passengers are situated in the following parts of the Euroregion Villa Manin: Veneto and Slovenia. The region Veneto has even three large airports (Venezia, Verona and Treviso). Marco Polo international airport is the fourth largest airport in Italy.⁸ Outside the Euroregion, the region Emilia-Romagna also has a large airport.

⁷ For classification of 'main' or 'large' airport see Eurostat (2007): Panorama of Transport.

⁸ Only the airports: Roma Fiumicino, Milano Malpensa and Milano Linate handling more passengers per year. See Eurostat (2009): Panorama of Transport, p. 23, table 2.11.

Tab. 6-1 Number of passengers in the airports in 2006

Airport	Region	Total passengers
Venezia Tessera (Marco Polo)	Veneto	6.328.892
Verona Villafranca	Veneto	3.007.965
Treviso	Veneto	1.330.473
Trieste	Friuli-Venezia Giulia	672.908
Klagenfurt	Kärnten	409.004
Ljubljana	Slovenija	1.328.068
Pula	Istarska	295.345
Rijeka	Primorsko-Goranska	210.000
Bologna	Emilia-Romagna	3.992.193
Forli	Emilia-Romagna	622.462
Parma	Emilia-Romagna	125.668
Rimini	Emilia-Romagna	323.432
Ancona	Marche	474.973

Notes: Airports offering direct intercontinental flights are marked.

Source: World Air Traffic Report 2006; Ministero delle infrastrutture e dei trasporti: Analisi della ripartizione territoriale del traffico aereo in Italia, anni 2006 e 2007; www.airport-pula.hr; www.rijeka-airport.hr.

While airports are important for connecting people, ports are also vital for the transport of goods. The Euroregion Villa Manin has a substantial coastline at the Adriatic Sea with important ports (Venezia, Trieste, Koper and Rijeka) as shown in fig. 6-2. The ports of Venezia and Trieste play an important role in supplying Central Europe and Northern Italy with petroleum. A measurement of the performance of ports is the 'handling' of goods.⁹ One of the largest ports in Italy and the largest one of Villa Manin is the port of Trieste with 46 million tonnes gross weight of goods per year, followed by the port of Venezia with 30 million tonnes. The total throughput of the port of Koper, the main harbour of Slovenia, was 15 million tonnes and it was 13 million tonnes in Rijeka (Croatia) in 2007. For comparison, the harbour of Ravenna (Emilia-Romagna) had a gross weight of goods of 26 million tonnes and Ancona (Marche) had a value of 9 million tonnes.

Although the ports located at the Upper Adriatic Sea are smaller than the harbours of the North Sea, they have the advantage that they lie on the shortest transport route, linking the economic centres in Central and Eastern Europe with Mediterranean countries and the Far East. For example, Asian freight takes two days longer from the harbour of Rotterdam or Hamburg than from the seaport of Koper.¹⁰ The strategic importance of the ports of Villa Manin as reloading points depends therefore not only on their investments in the ports themselves, but also on

⁹ Eurostat (2009): Panorama of Transport, p. 90. The total figures, which are the sum of goods handled coming in and going out, have to be interpreted with care. Their totals may include double-counting. The data provided are based on figures given by the ports themselves (see www.portauthority.hr; www.luka-kp.s; www.port.venice.it; www.trieste.it; www.port.ravenna.it; www.port.authority.ancona.it).

¹⁰ Die Presse 12.02.2009 (<http://diepresse.com>).

As regards the development of the transport system (roads, railways) for the regions of Villa Manin it must be noted that the data on the total length of roads between European States are not fully comparable because "the statistical definitions of different types of roads are open to varying interpretations by Member States."¹³ In addition, the kind of streets (state, regional or communal roads) included in the reports of Member States differ. The Italian data, for example, do not include communal roads.

The overall road networks did not expand substantially in Villa Manin since 2000. Because of the already large motorway network in the Italian regions of Villa Manin and in Kärnten, the length of the motorways did not expand further between 2000 and 2006.¹⁴ Nevertheless, the quality of the road system improved markedly in some areas. In Slovenija, the length of motorways increased between 2000 and 2006 from 427 to 579 km. In Croatia, it grew even faster from 411 to 877 km during that same period of time. Despite this enormous increase, the Croatian regions of Villa Manin need substantial additional investments to be better connected with the other regions of the Euroregion (see fig. 6.2). Croatia (with Montenegro and Albania) is favouring the Adriatic Ionian Corridor which is a planned motorway connecting the entire eastern shore of the Adriatic and Ionian seas. It is intended to start in Trieste, pass through Slovenija and enter Croatia near Rijeka. Thus, it would connect the ports of Villa Manin. However, at the moment, only Croatia is making significant progress on its sections.

In terms of car density in the population, there were 466 passenger cars for 1.000 inhabitants in the EU-27 in 2006.¹⁵ Car density was above the EU-27's average in the Italian regions of Villa Manin and in Kärnten as can be seen from table 6-2. In these regions, car density remained more or less constant between 2000 and 2006. In Slovenija the motorisation rate increased and it is now slightly above the European average. In Croatia, car density was still substantially lower than the EU-27's average in 2006 and it was nearly only half that of Friuli-Venezia Giulia. Thus, the motorisation rate differs substantially between the regions of Villa Manin. It can be assumed that car density in the Italian and Austrian regions of the Euroregion will not increase further or will even decrease in the coming years. In the Croatian regions, it will most likely rise further.

The railway network remained rather stable during the years in most of the regions of Villa Manin. The length of high-speed rail network¹⁶, however, is increasing. The length of Italy's high-speed rail network expanded from 248 km (2000) to 562 km (2007). In the benchmarking region Emilia-Romagna the construction of two high-speed railways was finished recently: Milano-Bologna (196 km) and Bologna-Firenze (77 km).¹⁷ These new segments cut travel times considerably.

Pontebbana is an international railway link between Udine and Villach in Kärnten which has been modernised in recent years. Now it is a double tracked and electrified railway line. In 2000, high-speed trains of up to 180km/h started to run at the Pontebbana. Austria and Italy

¹³ Eurostat (2009): Panorama of Transport, p. 12.

¹⁴ According to Eurostat the length of motorways in the region Veneto was 474 km (2000) and 485 km (2006). It was 209 km (2000) and 210 km (2006) in Friuli-Venezia Giulia and it was 249 km (2000) and 243 (2006) in Kärnten.

¹⁵ Eurostat (2009): Panorama of Transport, p. 41.

¹⁶ High-speed lines are sections of lines on which trains can go faster than 250 km/h at some point during the journey (Eurostat, 2009, Panorama of Transport, p. 17).

¹⁷ Ibim., table 2.9.

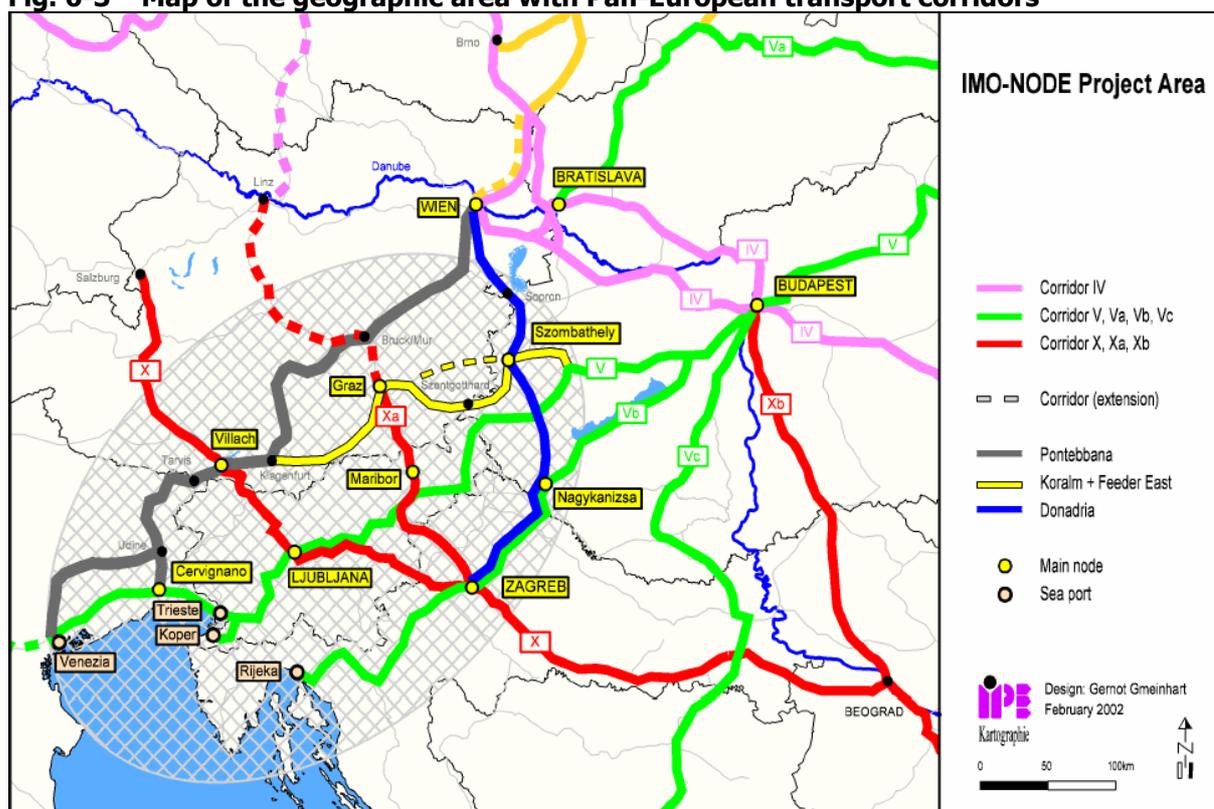
are interested in a high potential railway road between the Baltic and the Adriatic Sea ("Baltic-Adriatic Transport Corridor") which is intended to be an extension of the Pan-European-transport corridor VI: Gdansk-Warszawa-Katowice-Zilina to Bratislava/Wien-Graz-Klagenfurt-Udine-Trieste/Venezia-Bologna (see Pontebbana in Fig. 6-3).

A further important railway project for the Euroregion Villa Manin is the construction of the intended high speed railway axis Lyons-Trieste-Divaca / Koper-Divaca-Ljubljana-Budapest-Ukrainian border. This project belongs to the 30 infrastructure projects of the Trans-European Networks in Transport (TEN-T). The aim of TEN-Ts joint Community policy is "to improve economic and social cohesion, among others by linking island, landlocked and peripheral regions with the Union`s more central regions, through interconnecting and interoperable national networks by land, air, sea and inland waterways...".¹⁸ The Croatian regions of Villa Manin are, however, not included in this axis.

In extending the TEN-T networks beyond the EU-27's external borders, ten Pan-European-transport-corridors as routes in Eastern and Central Europe were defined which are important for trade between the EU and its neighbours (see Fig. 6-3). The ten corridors should connect Europe from the Atlantic to the Volga as well as from Scandinavia to the Mediterranean Sea. For the Euroregion Villa Manin the corridor V is of great interest because it connects Venezia (Italy) – Trieste (Italy) – Koper (Slovenia) – Ljubljana (Slovenia) – Maribor (Slovenia) – Budapest (Hungary) – Uschhorod (Ukraine) – Lemberg (Ukraine) – Kiew (Ukraine). One branch of the corridor V connects Rijeka (Croatia) and Becsehely (Hungary) via Zagreb. This corridor is important for both international and interregional connectivity. It will connect the larger cities in the region facilitating the interregional exchange of people and goods which is important for regional economic integration and success.

¹⁸ Ibim. p. 27.

Fig. 6-3 Map of the geographic area with Pan-European transport corridors



Source: IPE Integrierte Planung und Entwicklung regionaler Transport- und Versorgungssysteme GesmbH

6.1.3 Summary of Accessibility

This section examined the accessibility of the Euroregion and its transport infrastructure. Apart from the region Veneto, the regions of the Euroregion Villa Manin have an index of both global as well as continental accessibility below the average. Better connections to global airports would increase the global accessibility of Villa Manin. Particularly, Friuli-Venezia Giulia and the Croatian regions should improve their connectivity.

The overall transport network did not increase substantially in the current decade. However, the transport system is already well developed mainly in the Italian and Austrian region of Villa Manin. Slovenia and Croatia undertake substantially investment to improve their infrastructure. The length of motorways, for example, increased there markedly. Nevertheless the connectivity between the different regions of Villa Manin should be improved. There are various ambiguous infrastructure projects such as the Pontebana and its extension, the high speed railway axis Lyons-Trieste-Divaca / Koper-Divaca-Ljubljana or the Corridor V which will better connect the region of the Euroregion.

6.2 Innovation Capacity

The following section analyses three important input factors of the innovation process which determine, together with other factors, the innovation capacity. The three input factors considered in this study are spending on innovation, the quality of universities and the human capital available in a region.¹⁹ To grasp these factors we use different indicators. In the case of spending on innovation, we measure the expenditures for research and development of different economic actors. For assessing the quality of universities, the widely-used Shanghai Index is applied. Finally the human capital of a region is measured by the share of the total labour force with a secondary or tertiary education. In the following, a subchapter is dedicated to each one of the above mentioned indicators.

The limited scope of this section will neither allow the addressing of output factors of the innovation process, such as the number of patents granted or scientific articles published, nor will it link the factors of innovation with performance data. To assess the innovation process and interpret it in light of the observable economic figures, a specific innovation study would be necessary.

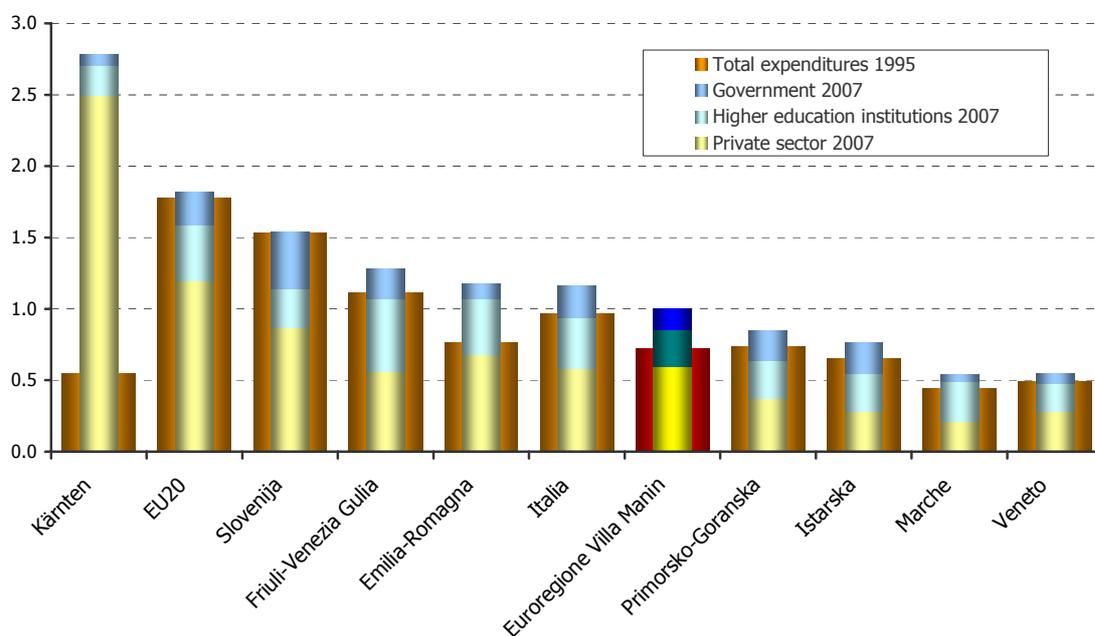
6.2.1 Research and development expenditures

The level of expenditures for R&D mirrors the effort of a region to foster its innovation capacity. Basically, one can distinguish three different segments which conduct and support research and development activities (see box below). Normally, the business sector accounts for the bulk of R&D expenditures which is the case for most regions including the Euroregion Villa Manin. Thereby the high heterogeneity between the share of business expenditures of Kärnten on one side and the small proportion of the Croatian and Italian partner regions on the other side is striking. The corresponding share of the Euroregion is slightly higher than the Italian average and considerably lower than the EU20 value.

Regarding the share of government and higher education expenditures, Villa Manin lies well behind the corresponding Italian and EU20 averages whereas only the partner regions Slovenija (with respect to government) and Friuli-Venezia Giulia (with respect to higher education spending) exhibit an above-average amount.

¹⁹ Human capital can be seen as an output of the innovation process. But it is also an input for innovation and needed to develop new products and processes and is therefore counted as input factor.

Fig. 6-4 Research and development expenditures as share of GDP



Note: Expenditures 1995 and 2007 in % of the GDP
 Source: BAKBASEL

Consequently, at just under one percent, the total expenditures on R&D as a share of GDP is, fairly lower than the EU20 average and well below the target of 3% set by the Lisbon Agenda (2,5% for Italy). The total figure of Villa Manin is, at least, clearly higher than it was in 1995 whereas the positive dynamic of the EU member states is, despite their ambitious targets, rather modest. The Euroregion also performs better than Italy although one has to keep in mind that the increase is mainly driven by the sharp rise of the business expenditures in Kärnten. The impressive development in Kärnten is based on the arrival of some big multinational firms which built ample headquarters there with enormous R&D activities. However, the example of Kärnten shows that huge increases in R&D spending can occur and that the guidelines of the Lisbon treaty are attainable.

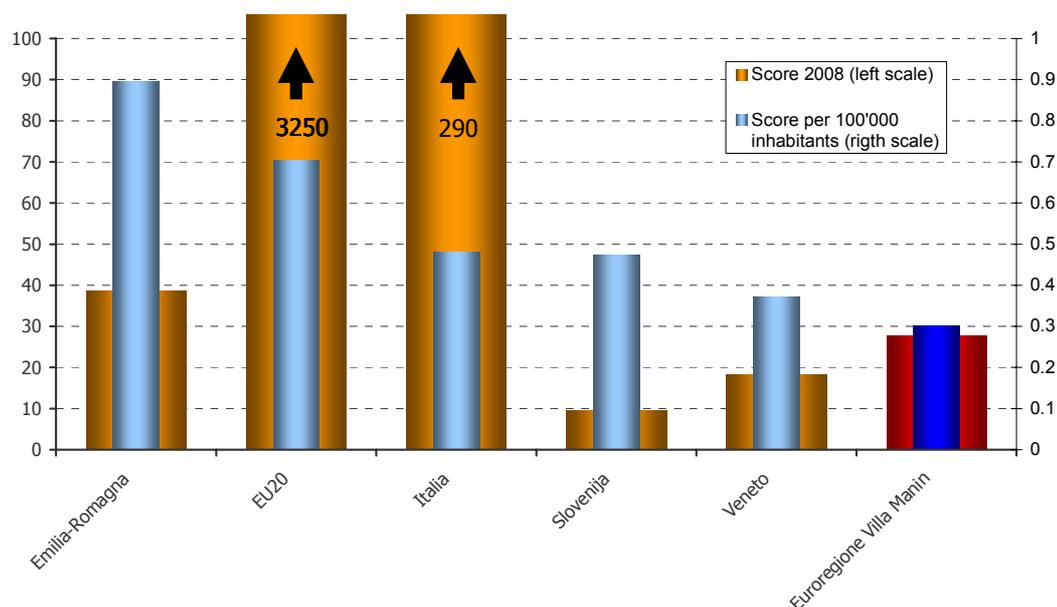
Expenditure on research and development (R&D)

Expenditure on R&D measures the investments of the private sector, government and higher education institutions in the innovation process. The private sector consists of the business enterprise and the non-profit sector although the latter is exceedingly modest in size. The magnitude of the R&D expenditures of the different sectors depends heavily on the size of the regional economy and the regions used in the benchmarking are quite different in size. Therefore, the indicator is calculated as a ratio of GDP of a region.

6.2.2 Quality of Universities

Academic activities supply the economy with knowledge and skills through research and education. Besides the state and private firms, universities are considered to be one of the three main actors that constitute a regional innovation system. Therefore, the research potential embodied in universities located in a region is a crucial factor of innovative activity and of future economic success. To measure the quality of universities, the Shanghai Index is applied (see text box below).

Fig. 6-5 Research quality of universities: The Shanghai Index 2008



Note: Neither Kärnten nor the Croatian regions have universities ranked in the top 500 in the Shanghai Index.
Source: BAKBASEL Share of tertiary educated individuals in total employment

Out of the six partners of the Euroregion Villa Manin in 2008 only two regions have a university among the top 500 universities considered by the Shanghai Index.²⁰ These are the Università degli Studi di Padova, which is ranked 171st worldwide and 4th among Italian universities, and the Univerza v Ljubljani, which is ranked 447th worldwide. According to the rankings, the total score of these universities amount to respectively 18,2 and 9,6 points which also constitute the total score of the regions Veneto and Slovenija where the two universities are located. The sum of nearly 30 points for these two universities represents the total score of the Shanghai Index for the Euroregion Villa Manin. Comparing this figure to Italy or the European Union, it becomes evident that the region is not a very important university research region and that a rather small part of the leading research activity takes place there. Looking at scores per 100.000 inhabitants to correct for different regions' size, Villa Manin slips into last place of the six areas

²⁰ In 2007 the region Friuli-Venezia Giulia had one university (Scuola Internazionale Superiore di Studi Avanzati, SISSA) and in the preceding two years even two universities (SISSA, Università di Trieste) in the Shanghai Index. In 2008 none of these universities qualified for the Shanghai Index anymore.

compared. The neighbouring region Emilia-Romagna ranks clearly ahead in the sample due to its four universities represented in the Shanghai Index (Università di Bologna (ranked 211), Università di Ferrara (393), Università di Parma (413) and one location of the Università Cattolica del Sacro Cuore (505)²¹).

Measurement of university quality: The Shanghai Index

The Shanghai Jiao Tong University's 'Academic Ranking of World Universities' ("Shanghai Index") is a widely used benchmark to estimate the research quality of universities. This ranking comprises the 500 best universities in the world and considers, among others, sub-indices on publications in journals and the number of Nobel Prize winners. In this study the indicators total scores in the Shanghai Index for all universities located in the region and the total scores per capita are used to measure the research qualities of the universities in the region. The total number of scores reflects the quantity of top research available in the region. Because networking effects and economies of scale play an important role, the total number of scores is important in itself. Furthermore, in order to attract the best researchers and students possible, a region must become known as a prominent centre for learning with a critical mass of top universities. Of course, this number depends on the size of the regions as well. To take the different sizes of the regions in the sample into account, per capita figures are used as well.

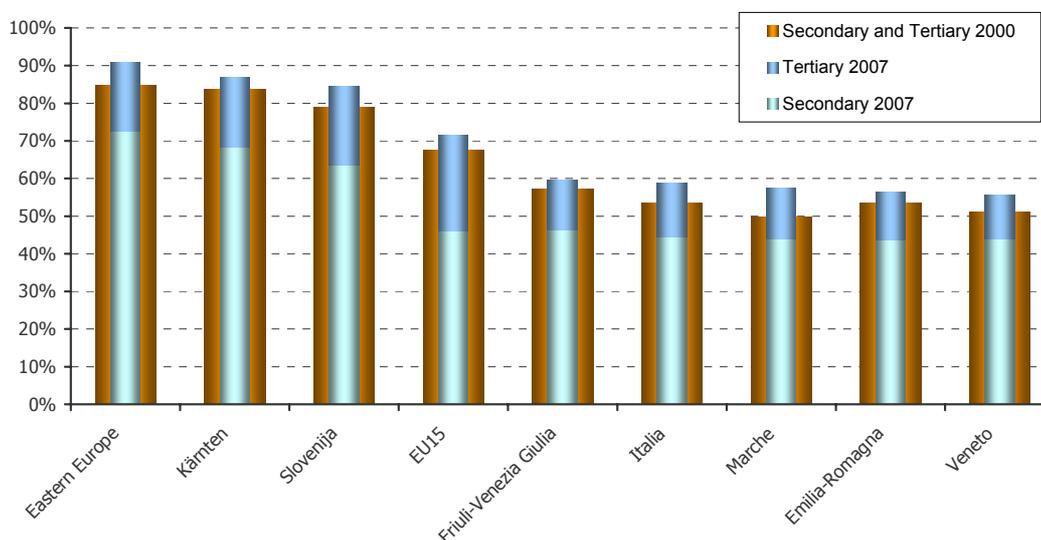
6.2.3 Availability of qualified workforce

While the industries of highly developed countries are becoming more and more knowledge intensive, the production factor of human capital is becoming increasingly crucial. Human capital is understood as the sum of skills, creativity and knowledge of all people living or working in a region and contributing to the economic success of firms and economies. Unfortunately, skills, creativity and knowledge are not directly observable and therefore a measurable indicator which figures as a proxy is needed. In this study, the share of the total employment with a secondary or tertiary degree is analysed. This indicator allows quantifying the level of educational training obtained and serves as a useful indicator for human capital (see box below).

Indicators for human capital

A good way to assess the human capital of a person is to look at his highest level of formal education achieved. The indicators used in this study are the share of total employment with a tertiary degree and the share of total employment with a secondary degree (but not a tertiary). Of course, these are incomplete measures since they focus on the formal education usually obtained at the beginning of working life. They neither reflect non-formal education nor the influence of work experience and ability and they ignore life-long learning. Furthermore, differences in the education systems between countries might lead to biased results. However, assuming a strong correlation between formal education and the quality of human capital, the former is a good indicator for the later. Thus it is widely accepted in international comparisons.

²¹ With different locations within Italy, the Università Cattolica del Sacro Cuore is a special case and is not easily assigned to one single region. The headquarters of the university is situated in Milan, but one location is in the region Emilia-Romagna. By virtue of its small score of less than 2 points, the influence of the assignment is of minor importance.

Fig. 6-6 Qualification of labour force

Note: Employed persons with secondary or tertiary education in % of total employment. Due to missing data, the Croatian regions and the EU20 are not included. Instead, averages of the old European member countries (EU15) and the new Eastern European countries are included. Source: BAKBASEL

Figure 6-6 shows the share of the labour force which has respectively a secondary or tertiary education as highest education. Unfortunately, due to lacking data of the Croatian regions, no values could be calculated for the Euroregion Villa Manin. Looking at the diverse sample, the considerably low shares of the Italian regions stand out while the Eastern European countries and Slovenija show a markedly high educational level of their labour force. Although the Italian regions have undertaken significant efforts to boost their tertiary education levels, the gap between them and the EU15 and the new Eastern European member countries remains reasonably large. But tertiary entry rates among younger Italians have increased notably and, as a result, the disparity is expected to fade in the long term. The Eastern European countries, Slovenija and Kärnten exhibit a high level of secondary education while their shares of tertiary education remain lower than in the EU15. The high level of secondary education suggests a well functioning vocational education system in these countries.

6.2.4 Summary of Innovation

In this study, the innovation capacity of the Euroregion Villa Manin has been assessed by analysing the R&D expenditures, the quality of universities and the availability of human capital. Regarding the R&D expenditures, Villa Manin clearly spends a smaller part of its GDP on innovation than the EU20 average and slightly less than the Italian average. But in the last decade, the R&D expenditures of the Euroregion have risen considerably faster than in the EU20. However, the positive dynamic was mainly driven by one partner region, Kärnten. The qualification structure of the labour force reveals a similar structure. While the shares of tertiary and second-

dary education of most partner regions are currently under the European average, their growth rates are high. Finally the quality of universities has been judged high only for the University of Padua.

In summary, on the base of the indicators used, compared to the EU average, the Euroregion Villa Manin exhibits a lower innovation capacity, but it shows a positive dynamic in the development of its innovation capacity.

6.3 Regolamentazione dei mercati

6.3.1 Concept

Regulation should correct market failures and compensate for externalities. However, regulation is costly. The optimal level of regulation cannot be determined theoretically; empirical studies have to be used to answer this question at least in part. Many empirical studies indicate that most countries are at a level of over-regulation and would benefit from deregulation measures. The benefits of deregulation are mainly derived from increased competition in product or factor markets that forces market actors to increase their productivity. Of course, there are many other channels through which regulation is linked to economic growth.

The International Benchmarking Database of BAKBASEL contains two proxies for regulation. These indicators measure the extent to which policy settings promote or inhibit competition in the areas of product and labour markets. The following box gives some explanation of the methodology and input data used.

Indicators of regulation

The Regulation Indicators of BAKBASEL are essentially based on the OECD regulation database which is available for the years 1990 (employment protection), 1998 and 2003 (product market regulation, employment protection) and 2008 (product market regulation). The two indicators used are a summary of a wide range of regulation indicators collected by the OECD, weighted according to the results of a factor analysis. The summary indicators represent the stringency of regulatory policy on a scale from 0 to 6 with higher numbers being associated with policies that are more restrictive.

The individual indicators include, among others, regulation on market access, the use of inputs, output choices, pricing and international trade and investment; administrative regulation (i.e. the interface between government agencies and economic agents) including means for communicating regulatory requirements to the public as well as compliance procedures; and employment protection legislation (EPL) for regular as well as temporary employment contracts.

With the objective of an annual monitoring of regulatory reforms in the countries of the *International Benchmarking Database* of BAKBASEL, additional quantitative information both from the OECD on the evolution of sector specific regulation over time and from the «Index of Economic Freedom» published yearly by the Fraser Institute is used to build time series for the two regulation indicators. The 1990, 1998, 2003 and 2008 values of the OECD indicators thereby serve as anchor values. The approach of the used indices of the Fraser Institute - «Business Regulations» and «Labour Market Regulations» - is similar to the OECD and a cross section comparison yields similar country ratings.

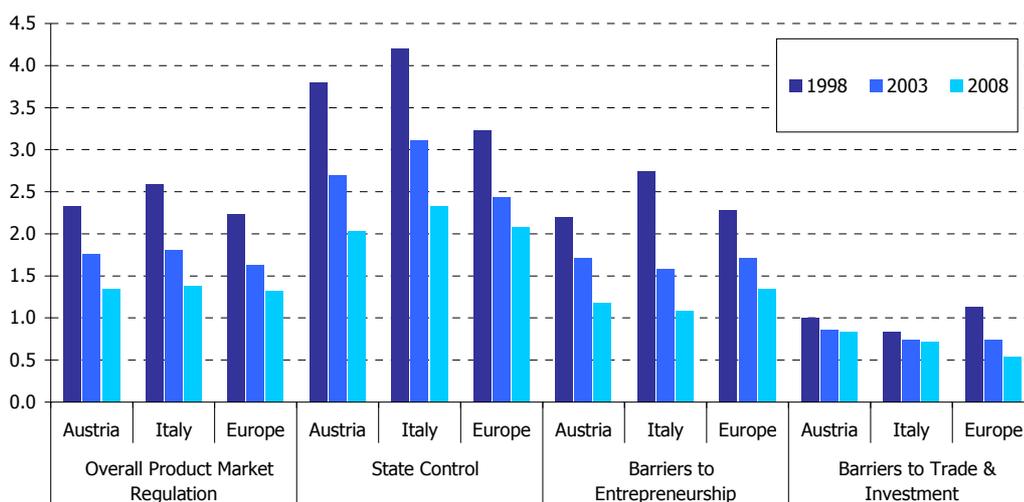
Slovenia and Croatia are not covered in the OECD regulation database. Therefore, for these two countries, only information from the Fraser Institute was available. Together with data for other Eastern European countries, this information has been used to estimate comparable indicators of product and labour market regulation for Slovenia and Croatia.

6.3.2 Product Markets

Product markets were extensively liberalised in Europe in the period between 1998 and 2008. The European average value of the OECD indicator for product market regulation decreased from 2,2 in 1998 to 1,3 in 2008. Liberalisation has taken place particularly in sector-specific regulation, i.e. in the markets for gas, electricity and telecommunications, which was pushed forward by the European Commission.

A more detailed analysis of different areas of regulation shows that there is still room for further deregulation in many countries. The OECD data indicate that this holds true particularly with regard to the areas of «state control» and «barriers to entrepreneurship», while «barriers to trade and investment» seem to play a minor role for limiting competition in European countries.²² State control describes the extent to which governments influence firms, e.g. through public ownership or price controls. Barriers to entrepreneurship reflect access to information on existing regulation, administrative burdens for start-ups or regulatory barriers to market-access.

Fig. 6-7 Regulation of product markets 1998-2008 in Austria and Italy



Note: The aggregate Europe consists of the countries Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, United Kingdom
 Indicator between 0 and 6 with higher numbers being associated with policies that are more restrictive
 Source: OECD

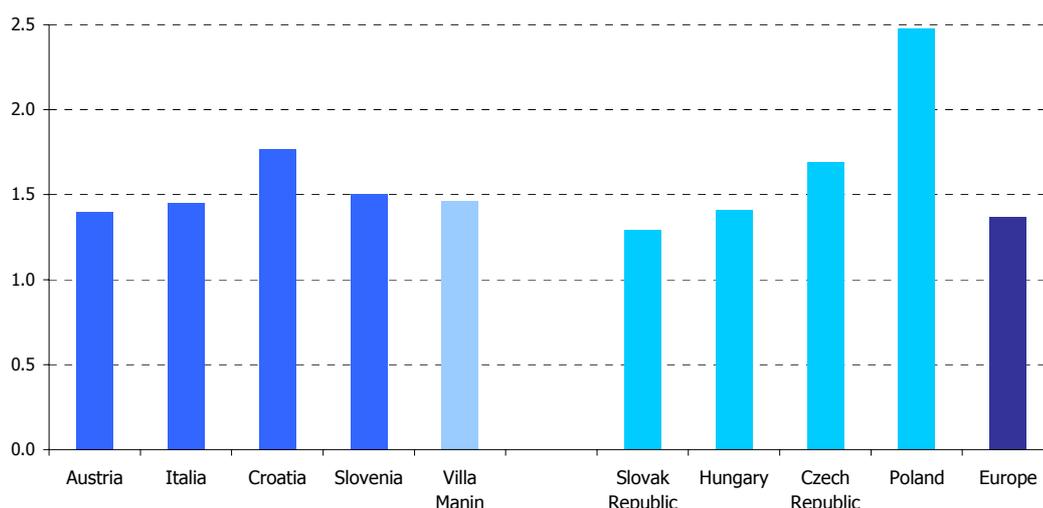
For the region of Villa Manin, the OECD regulation database contains information for Italy and Austria. In 2008, both countries had about the same level of product market regulation as Europe on average. Ten years prior, both Austria and Italy lagged behind other European states. Since then, Austria has made notable efforts through redimensioning of the public enterprise sector, a reduction of involvement in business operations, deregulation of network sectors and a reduction of legal barriers to market access.

²² See OECD (2009).

Italy showed even more progress with respect to deregulation. Of course, there has also been a more distinctive pressure for deregulation. In 1998, Italy had one of the most restrictive product market regimes in Europe. Deregulation efforts have been undertaken particularly with respect to privatisation of public enterprises, direct control over business enterprises, price controls, use of command and control regulation, administrative burdens on start-ups, legal barriers to market entrance and deregulation of network industries.

Because the OECD regulation data contain no information for Slovenia and Croatia, additional information from the Fraser Institute has been used to estimate equivalent indicators, presented in the following figure. In the Slovak Republic, Hungary and Slovenia the level of product market regulation is comparable with the European average. While the Slovak Republic improved to Western European regulatory levels already in the 90's, Hungary's and Slovenia's reforms took place mainly in the past five years. In Croatia and the Czech Republic, the reform process started slightly delayed, but in recent years, there has been a notable improvement towards a more liberal regime. In contrast to the other five Eastern European countries, Poland still has a long way to go in regulatory reform.

Fig. 6-8 Regulation of product markets in different countries 2007



Note: Overall Product Market Regulation 2007. The Indicator is scaled between 0 and 6 with higher numbers being associated with policies that are more restrictive. The value for Villa Manin is a GDP weighted average.

Source: OECD, Fraser Institute, BAKBASEL

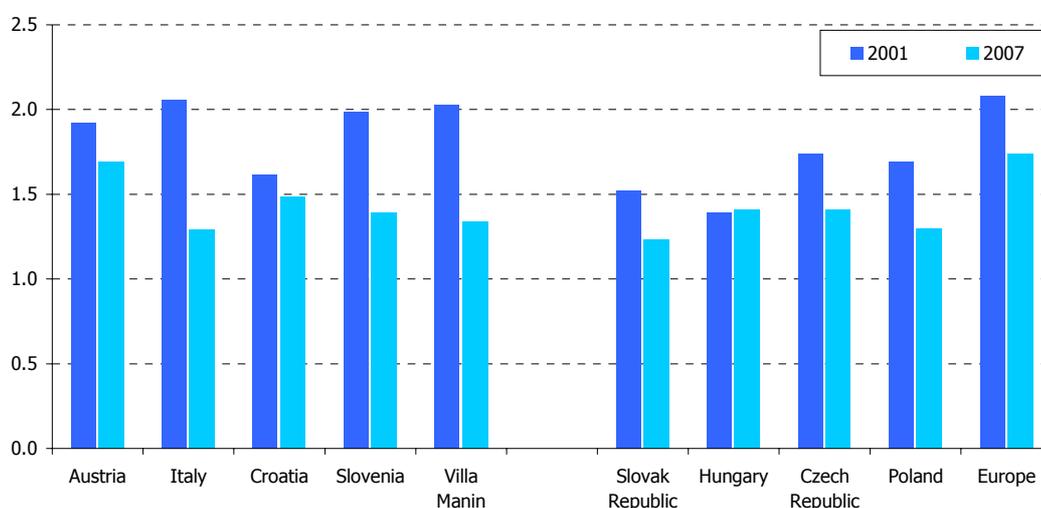
A more disaggregated analysis of the data shows that the reform process in Slovenia and Croatia was mainly driven by a reduction of price controls and an improvement of the framework conditions for business start-ups. In contrast, bureaucracy costs increased in recent years due to the adoption of EU standards, i.e. requirements on product and service quality or energy and environmental regulations. Compared to the situation in Europe, further reform areas can be identified in Croatia in the fields of price controls, administrative burdens for start-ups, irregular payments and licensing restrictions. For Slovenia, there is room for further decrease in price

controls, measures to prevent irregular payments, an easing of licensing procedures and tax reform that leads to lower costs for firms to prepare, file and pay taxes.

6.3.3 Labour Markets

While there has been a strong convergence process in the area of product market regulation in Europe in the last ten years, there are still quite big differences with respect to the regulation of labour markets. While the indicator for product market regulation varies between 0,8 and 2,4, the indicator for labour market is spread between 0,6 and 3,1. In terms of the standard deviation of the indicator, the variation is nearly twice as high for the labour market regulation.

Fig. 6-9 Labour market regulation 2001-2007



Note: Original values were transformed to a scale between 0 and 6 with higher numbers being associated with policies that are more restrictive.

The value for Villa Manin is a GDP weighted average.

Source: OECD, Fraser Institute, BAKBASEL

The figure shows the evolution of labour market regulation from 2001 to 2007 in Austria, Italy and the Eastern European countries analysed above. Because there is no OECD data available for Slovenia and Croatia, the numbers for these countries are derived using additional quantitative information from the Fraser Institute.

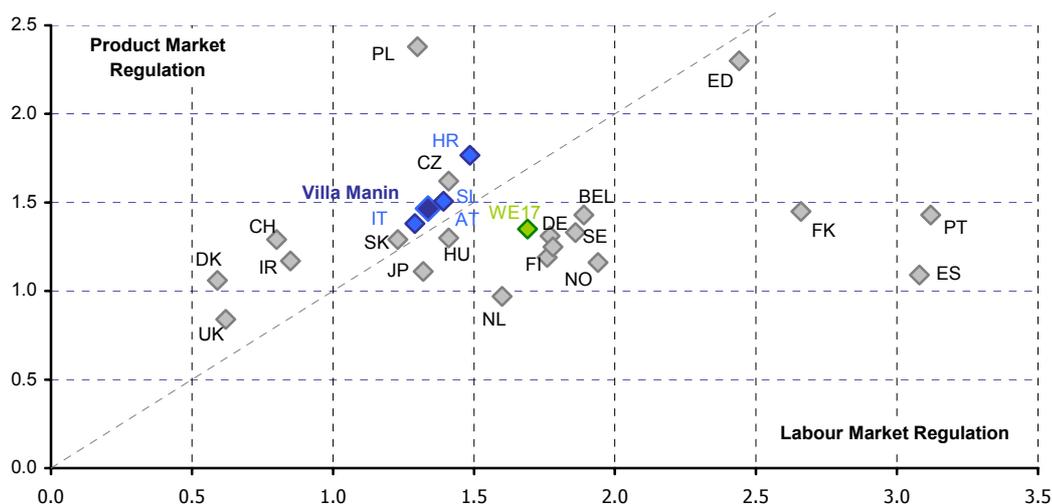
With respect to the regulation of labour markets, in all four countries labour markets are organised more liberally than in Europe on average. Particularly in Italy and Slovenia, notable reform steps have been undertaken since 2001. In Italy, minimum wages established by law have been abolished. Instead, wages are set through collective bargaining agreements on a sector-by-sector basis. Further improvement has been made by a reduction of costs when dismissing a redundant worker. Slovenia liberalised its labour markets in various aspects: lower impact of minimum wage, reduction of regulation with respect to hiring and firing workers, less centralised collective bargaining of wages, and a reduction of mandated costs of hiring and dismissal.

Possible further reform areas are regulations associated with the hiring and firing of employees (Italy), reforms towards a more flexible wage determination (Croatia, Austria, Italy) and a reduction of mandated costs of hiring (Austria, Italy) and dismissal (Slovenia).

6.3.4 Conclusion and remarks

Overall, Villa Manin seems to be relatively well positioned with respect to market regulation. As for Product Market Regulation, there are still some areas with room for further reforms, in particular with respect to state control, administrative burdens (Croatia, Slovenia) and sector specific regulation. The aspect of sector specific regulation refers primarily to the service sector. The liberalisation process of certain network industries (i.e. postal services, energy) is not finished yet, and in some other service industries (i.e. retail trade, professional services) regulation is still quite restrictive. As for Labour Market Regulation, Villa Manin's position is quite good. Although there are some issues to be addressed in each country, all four countries show a higher degree of liberalisation than Europe as a whole.

Fig. 6-10 Product and Labour Market Regulation



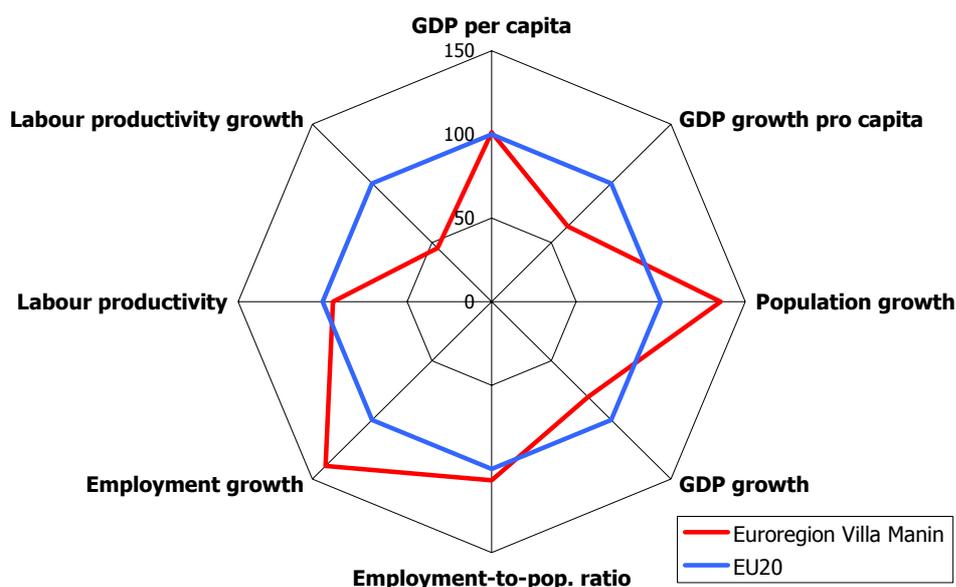
Note: Product Market regulation for 2008, except for Villa Manin, Slovenia, Ireland, Greece (2007)
Labour Market Regulation for 2007. The value for Villa Manin is a GDP weighted average.
Source: OECD, Fraser Institute, BAKBASEL

Particularly in the service sector, additional difficulties from the lack of integration of cross-border product markets (retail trade, retail banking, and transport) play a role – an aspect the aggregated regulation indicator for Villa Manin does not account for. With respect to labour markets, legal aspects of cross-national market separation should play no significant role even though Austria still has restrictions on the access of workers from Eastern Europe to their labour markets. Austria is maintaining compulsory work permits until 2011.

7 Conclusions

After outlining the economic and social profile of the Villa Manin Euroregion, and comparing various aspects of its economic performance (from a macroeconomic and sectoral point of view), in Chapter 6 three important factors were analysed that determine the area’s economic attractiveness. What are the main results of this work of benchmarking?

Fig. 7-1 Summary of the economic performance of Villa Manin compared with EU20



Note: position of the Villa Manin Euroregion with respect to the European average (EU20 = 100).
 Data for 2008 and for period 2000-2008.
 Source: BAKBASEL

Graph 7-1 summarises the Villa Manin Euroregion’s results in terms of economic profile and performance compared with the European average (EU20 = 100). Some of the indicators shown in the octagon indicate the level of GDP per capita, the employment rate and labour productivity achieved in 2008, while others give the annual variation between 2000 and 2008.

The Euroregion has a level of economic development that is similar to the European average; GDP per capita is almost the same, labour productivity is only 6% lower than the European mean while the employment rate is 6% higher. This situation of near parity between the Euroregion and the European average is mainly due to the level of prosperity of its Italian and Austrian parts, while Slovenia and the Croatian counties are economically weaker.

The situation as regards growth, seen from the graph, is more variegated: the Villa Manin Euroregion has an advantage over EU20 in population and employment growth, while it is worse off in terms of GDP growth and productivity. Its economic performance is clearly influenced by the performances of its Italian regions, whose populations increased sharply between 2000 and 2008, but whose GDP grew at a below average rate. In these areas GDP

growth was solely an effect of the rise in employment, while their productivity deteriorated. On the contrary, Slovenia and the Croatian counties proved that they were moving strongly towards the level of prosperity and productivity of the West, but their weight inside the Euroregion is lighter.

As far as sectors are concerned, with respect to the European average, the economy of the Villa Manin Euroregion is more concentrated on industry, above all traditional low-productivity industrial segments. Services, on the other hand, especially urban services, are less represented, but tend to have high added value.

The following conclusions may be drawn as regards the economic attractiveness factor:

- apart from Veneto, the Villa Manin Euroregion areas are less accessible than the European average because intercontinental airports are further away. The situation is changing, however, and there are various large-scale projects to speed up connections between the Euroregion and the rest of Europe;
- the Villa Manin Euroregion's innovative capacity is lower than the European average both in terms of expenditure on research and development and the availability of highly qualified human resources. Although some areas are improving (Carinthia above all), renewed efforts are needed to enhance the Euroregion's innovative capacity;
- during the past few years, market regulation, both with regard to products and labour, has been more liberalised than the Western European average in the countries that make up the Villa Manin Euroregion, but there is still room for further reforms, especially in the services sector, which also has its importance in view of the prospects for optimising the cross-border market.

Finally, an analysis is given in table form of the Euroregion's strengths and weaknesses and of the opportunities and threats that await it (SWOT analysis: Strengths, Weaknesses, Opportunities and Threats).

Tab. 7-1 Main points in SWOT analysis

Strengths (S)	Weaknesses (W)
Level of prosperity equal to European average	Productivity disadvantage, tending to worsen
Strong increase in population and employment	Weak GDP growth
Robust expansion of Slovene and Croatian economies (with high competitiveness of tourism economy)	Urban services (with potential for growth) under-represented
Labour market regulation more liberal than in the European average	Growth problems in the Italian regions, which account for three-quarters of the Euroregion's economy
Geographic position in the centre of the new Europe	Weakness in innovative capacity indicators
Opportunities (O)	Threats (T)
Better connections and coordination of transport infrastructures within the Euroregion itself and towards the rest of Europe	Great importance of traditional industry, which is very exposed to competition from low labour cost economies and the present economic crisis
Convergence of level of prosperity within the Euroregion (which is tending towards a more even picture)	Marginal role of the new and old economy, which tend to have high productivity
Cross-border cooperation (institutional and economic, as in tourism)	Loss of competitiveness owing to slow rise in productivity

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Methods and Sources

Methods and Sources used for the construction of the database are several. You find the sources at the bottom of each chart in the report. The main sources for the International Benchmarking Database of BAKBASEL are the National Statistical Offices. The methodology used for the regional accounts is defined by Eurostat in «Regional Accounts Methods. Gross value added and gross fixed capital formation by activity» (1995). For more information about the exact methodology and sources used for the International Benchmarking Database, see BAKBASEL (2009): «International Benchmarking Report 2009».