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THE SHORT LIST OF STRUCTURAL INDICATORS IN THE LIGHT OF EUROPEAN TERRITORIAL COHESION

Regional competitiveness has been defined as the ability of a region to anticipate and successfully adapt to internal and external economic and social challenges, by providing new economic opportunities, including higher quality jobs for its citizens (European Commission 2003, p. 6). The question remains however how to identify these kinds of abilities statistically? According to the methodology presented in earlier articles in this volume, the answers relate to the chosen indicators as well as to the interpretation of determinants, which express the status quo as well as capabilities and vulnerability of particular regions.

This paper gives an example of statistical analysis of territorial competitiveness by utilising a set of politically rather than scientifically defined indicators. In the Lisbon European Council in March 2000 the European Union set a strategic goal for the next decade «of becoming the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion». In order to measure the progress of this strategy a set of indicators was needed – and agreed upon. These were to be reported in a separate «Synthesis Report» or annex of the annual European Commission «Spring Report» to the European Council. The indicators cover the five domains of employment, innovation and research, economic reform, social cohesion, the environment as well as general economic background.

Starting from originally 35 indicators for the EU15 in 2001 the list has successively expanded. In 2002 it covered 42 indicators and was expanded geographically in 2003 to cover also the (at that time) Candidate Countries. For the report of 2004 the Commission suggested a «short list» of 14 structural indicators, allowing for a more «concise presentation and a better assessment of achievements over time vis-à-vis the Lisbon agenda». This short list has been agreed upon with the European Council. Three of the fourteen indicators were successively replaced but it was agreed upon that the short list will be kept stable for three years and is as such viable until at least the 2006 spring report.

The rationale of the short list is essentially pragmatic. In a communication (COM (2003) 585 final, 8.10.2003) the Commission stated five primary benefits with such a short list, namely that: it is easier to present a clear picture of the Member States' positions relative to the most important Lisbon targets; the proposed indicators are well known and easy to understand; the shortlist of indicators has a clearer logic and therefore the policy messages drawn from the progress assessment based on the structural indicators will be soundly based; agreeing the list of indicators every three years fits with the streamlined procedure for the Broad Economic Policy Guidelines, the Employment Guidelines and the Internal Market Strategy; and the stability of the list will be ensured by agreeing it once every 3 years. Finally, the composition of the list reflects data availability.

Most of the chosen indicators do not have territorial aspects as their main objective for measurement but a majority of them do have territorial implications. There thus exists a clear rationale to analyse these 14 indicators also from the point of view of European territorial cohesion.

Short list of structural indicators: regional perspectives. – Six of the fourteen Structural Indicators from the short list are available wholly or partially on the regional level (NUTS 2). Furthermore, in order to improve the analysis, we have estimated the regional implications of one additional indicator (the [un]employment rate). The regionalised indicators are primarily economic and social ones. However, also for these, variations are first and foremost reflections of differences between countries rather than regional ones. This is however understandable since the framework for economic and social activity still today is largely a matter of nation states rather than regions. Within a given country, by and large, broad economic policies, legislation, taxation, the currency, and so on are primarily national matters.

Gross Domestic Product per capita in Purchasing Power Standards. – The rationale for this indicator is to estimate the «overall standard of living, and social and environmental welfare». It is a temporal comparison where it is expected to increase over time and the gap with main competitors (USA, Japan) should be decreased. At the same time the indicator has substantial spatial implications, mainly in connection with overall territorial cohesion.

There is a substantial concentration in Europe in terms of production value. For example, the area within the Pentagon (i.e. that inside the circle London-Paris-Munich-Milan-Hamburg) produces close to half of the entire EU25 Gross Domestic Product and contains one third of its population – on a mere 15% of its land area.

In general, metropolitan and other large city areas in the west dominate the upper reaches of production per inhabitant. Also in Eastern Europe capital regions have in general a considerably higher production per capita than do

the rest of their respective countries. The regions surrounding Prague and Bratislava are the only Eastern European regions to have a productivity rate higher than the EU average. In addition to Cyprus and Malta the only additional region amongst the new member states to reach above 75% of the EU average is the one surrounding Hungary's capital Budapest.

Most regions in the new member states fall below 50% of the EU average. Similarly, most regions in the cohesion countries (with the exception of Ireland) as well as the New Länder display considerably low rates, albeit far above Eastern European levels in general. In macro-spatial terms Europe thus in this respect displays a clear core-periphery pattern with eastern Germany, the Czech Republic, western Hungary and Slovenia constituting a buffer zone running through the continent.

When taking into account the varying national levels of GDP per capita, the largest variations within one country (on NUTS 2 level) can be found primarily in East-European countries such as Slovakia, the Czech Republic, Romania and Hungary. Among the old Member States Belgium and the UK have the highest internal disparities. At the other end of the scale variations in e.g. Switzerland and the Netherlands are very small.

Gross Domestic Product per employed person in Purchasing Power Standards. – The primary aim of this indicator is to measure the overall efficiency of the economy in terms of labour productivity, i.e. how much on average is being produced per every employed person. Like with GDP per capita, it is a temporal comparison where it is expected to increase over time and the gap with main competitors (USA, Japan) should be decreased. Raising labour productivity is crucial if aiming for sustained growth during a period of ageing populations.

On the whole the pattern is somewhat reminiscent that of GDP per inhabitant, i.e. a clear core-periphery and a clear east-west division. All capital regions in the 15 old Member States as well as Prague are also above the EU average. A closer inspection reveals considerable differences. There are two primary explanations for variance between these two. Firstly, differences in labour productivity may stem from more labour input (extensive input), i.e. more persons in employment. Secondly, they may also stem from more output per unit of labour input (intensive input: mainly driven by more capital and/or advanced technologies or/and improved organisation of production processes).

Labour productivity on the regional level does not correlate to any higher degree with the employment rate, i.e. there are «productive» regions with high and low shares of employment alike. Labour productivity as such is thus primarily a reflection of the economic structure of the region (high vs low share of capital intensive production). However, differences between GDP per capita and GDP per person employed are by and large explained with the rate of employment.

Thus e.g. Corsica in France, Sterea Ellada in Greece and the Italian regions

of Sicily, Campania and Calabria show considerably higher productivity (>40 index points when compared to the European average) when looking at productivity per employed person instead of per inhabitant. The same applies for all French Outremer territories as well as for most of remaining Greece and southern Italy, as is the case for most regions in western Spain and virtually all of Bulgaria. In general these regions have in common a substantially low rate of employment.

The opposite holds true for much of Fennoscandia, the Netherlands and the UK, southern Germany and all regions in Switzerland. In these areas the rate of employment is substantially higher than the European average.

Apart from Brussels, Rome and Sofia, most capital regions display a lower productivity per person employed than per inhabitant. The primary reason for this is extensive commuting from outside these regions. There are only seven regions where labour productivity lays above 50% of the EU average (Brussels, Inner London, Luxembourg, Hamburg, Corsica, Île de France, i.e. Paris, and Bremen), in contrast to GDP per capita, where this figure is nearly threefold. More generally, considering the NUTS 2 level, labour productivity shows substantially larger territorial cohesion than does GDP/capita.

Employment rate. – The raising of the rate of persons employed is perhaps the most widely cited and publicly well known goals of the Lisbon strategy. When looking at the EU population as a whole, a mere 27% of it is engaged in employment. Those not employed represent a wide variety of people. This includes first and foremost unemployed persons, whereas the non-actives group is comprised of e.g. pre school infants and schoolchildren, students, pensioners, persons in military service or on maternity or sick leave, housewives etc. While large portions of those not currently employed are, by definition, non-employable (e.g. children), a noteworthy part of those unemployed or non-active persons represent a pool of unutilised labour potential that could partly ease the demographically based labour market pressure many European countries are currently facing.

In March 2000, at the Lisbon European Council, a target was set for an EU employment rate of 70% by the year 2010 (60% for females). This ratio refers to the share of employed persons in the age group 15-64 years. The employment rate is a summary measure of the use of labour in the economy. There is considerable scope for the EU to rise its employment rate and hence also to rise output and living standards.

At the time that this goal was set the corresponding average rate was 63.1% for the EU15, while some four years later this had increased to 64.8%, which – if the trend continues – would not be sufficient to meet the target. In the second quarter of 2004 the employment rate for the EU25 was even lower (63.3%) owing mainly to the lower levels in some of the larger new Member States, such as Poland and Hungary. On average, the employment rate is ten percentage points lower in the new Member States than in the old ones.

Regional differences are also substantial. Out of all 280 NUTS 2 (or corresponding) regions within the ESPON study area, less than a quarter or 66 regions lay above 70%. Of these only Prague and Bratislava are in Eastern Europe, the rest laying primarily in northern Europe, the Netherlands, the UK, Switzerland and southern Germany. In general, capital regions and other large city regions do have higher rates than their respective countries on average.

In some 4/5 of the European territory the employment target has not yet been met. In 24 regions less than half of the working age population are employed. These regions cover 11% of the ESPON space. Four of them are in (northern and eastern) Bulgaria, two in (western) Hungary and three in Poland. Furthermore all French overseas territories as well as Corsica, four Spanish regions as well as the six most southerly Italian regions belong to this group. In Corsica, which has the lowest rate, less than 38% of the working age population are employed.

In general (in Western Europe) high employment rates and small shares of working age population (aged 15-64 years) correspond. Due to the substantial structural changes underway this is not currently the situation in most Eastern European countries however, which means that in those countries a rise of the employment rate is a realistic goal.

Employment rate of older workers. – When comparing internationally the employment rate of older workers is low in Europe. Raising the employment rate of older workers is essential in order to achieve a higher overall employment rate. It should also increase social cohesion by means of a better integration of older workers in the labour force and help ensure sustained economic growth in a phase of ageing populations.

The Lisbon target employment rate for persons aged 55-64 years is set at fifty percent of that age group by 2010. Out of a total of 280 NUTS 2 regions his target has been met in 58 of them, these laying primarily in Denmark, Norway, Sweden, Switzerland and covering most of the UK. In Eastern Europe only Prague and three regions in Romania belong to this group. However, in Romania, in the capital region of Bucharest this rate is as low as 27% (suggesting data inaccuracies).

The lowest rates can be found in Eastern Europe. Out of the 20 regions with the lowest rates only three are in the old Member States (Nord-Pas-de-Calais and Corsica in France and the Belgian Limburg). In three regions in Bulgaria, Poland and Slovakia respectively and in four in Hungary less than a fifth of the population aged 55-64 years are employed.

When comparing the total employment rate to the corresponding one of older persons and thus viewing the issue from the point of view of social inclusion, the patterns are somewhat different. Labour market integration of older workers is particularly low in North-western France and in a belt stretching from the Alps (Northern Italy, via Slovenia, Eastern Austria, Hungary and Slovakia) to the Black Sea and including all of Bulgaria. In these regions the

overall employment frequency is between two and three times higher than that of older persons. In contrast, employment frequency of older persons is nearly on a par with the corresponding total one in all regions of Norway and Sweden.

Gross domestic expenditure on research and development. – The gross domestic expenditure on research and development (GERD) is considered a core indicator when aiming for a knowledge-based competitive economy. The Barcelona European Council target rate of gross domestic expenditure on R&D was set at 3% of the GDP by 2010, of which two thirds should stem from the private sector.

Apart from those where the entire country consists of merely one NUTS 2 region also Belgium, Ireland, Norway, Sweden and Switzerland are presented on the national level. Currently 18 out of 280 regions meet up to the criterion. Ten of these are in Germany, basically covering all of the country's leading academic and private sector research cities, three in Finland, two in France and one each in the Netherlands and Austria. Furthermore also the region surrounding Prague (Střední Čechy) has a GERD rate exceeding the 3.0% target, showing a rate more than double that in the city of Prague itself. An additional three UK regions (aggregated from NUTS1) and eight Swedish ones (aggregated from the country level) could also be included on the list. The single highest rate in Europe – higher than for Silicon Valley in the US – is in Braunschweig (railway technology, aeronautics, etc), where the R&D expenditure exceeds 7.1% of GDP.

Those regions performing worst in this respect are primarily in Eastern Europe and the cohesion countries. Additionally, many regions where tourism generates much revenue also belong to this category.

The correlation between a high rate of GERD and correspondingly high GDP is weak on the regional level. Top research regions display both average or lower production values (such as Braunschweig or Dresden in Germany or Pohjois-Suomi in Finland) than Europe in general or adversely, regions (such as Åland in Finland or Bolzano-Bozen in Italy) may perform highly with regard to the production output per inhabitant despite very low GERD rates.

Youth education attainment. – This indicator reflects the urgent need to ensure a proper educational level for the coming generations. It refers to the proportion (%) of population aged 20-24 years having completed at least an upper secondary education. Data are only available at the national level. It has no fixed target rate; it is merely expected to increase over time. This indicator replaces the old «Public expenditure on education», which has been dropped from the short list.

Although in general one among several reasonably good indications of the prevailing knowledge level of this age group it should nonetheless be interpreted

ted with a considerable amount of caution. Varying education systems, where intermediate degrees are not issued, affect the data considerably. In addition, perhaps even more crucial in an age of knowledge society, it does not in any way disclose how large a share of youngsters (presumably also post-24 years of age) that has completed a tertiary education, which can be either low (such as in the Czech Republic) or high (such as in Denmark). Self-evidently, it does furthermore not reveal the overall educational level of the entire population, merely that of this particular age group.

In Norway, the Czech Republic and Slovakia this rate exceeds 90% of the total age group. It is also high in Poland, Finland and Sweden. In Malta and Portugal on the other hand less than half of the young population have completed at least an upper secondary degree. Also in Spain, Italy and Luxembourg the rate is below 70%.

Comparative price levels. – The rationale behind this indicator is to measure the efficiency of the single market and the overall integration of consumer markets in Europe. It refers to the national deviation from average European price levels for all private household final consumption. It has no fixed target rate but is expected to display convergence over time. This indicator substitutes the old «Financial market integration», which has been dropped from the short list. Since very few regional price comparisons are conducted throughout the European territory data are only available on the national level.

In order for a well functioning internal market price levels in Europe should thus converge toward the EU average and both too high and too low prices presumably reflect non-convergence with regard to private household consumption. In this respect the core European countries France, Benelux, Germany and Italy as well as Austria are well integrated, as price levels in these countries do not vary more than 7% in either direction from the EU average. Price levels in Ireland and the UK (more expensive) as well as Spain, Cyprus and Greece (cheaper) are also within a range of 20% of the EU average. At one extreme end of the scale are countries, such as Switzerland, Norway, Denmark and Sweden, where consumer prices are substantially higher than in EU on the whole. At the other extreme are most transition countries as well as Portugal, in which consumer prices are substantially lower than in the EU on average. The extremes are Bulgaria, Romania, Slovakia, the Czech Republic and Hungary where average consumer price levels lay on less than half of the prevailing EU one.

From a spatial point of view substantial cross border variations in price levels are also interesting. This has several implications of which cross border private household trade is the most obvious. Also, as consumer prices in general tend to follow general wage levels in any given country, the implications for cross border investment could be expected to be substantial. FDI data between e.g. Germany and the Czech Republic and Poland support this assumption. The largest cross border price discrepancies are between Austria on the one hand

and Slovakia, the Czech Republic and Hungary on the other. Across these borders consumer prices vary with a ratio of 1:2 to the advantage of the latter. Variations are also of similar magnitude across the German-Czech and the German-Polish border, as is the case e.g. between Finland and Estonia, a border across which private household trade is quite substantial.

Business investment. – One method of estimating the magnitude of private sector investment (as opposed to public sector investments) is to relate the value of gross fixed capital formation stemming from the private sector to the overall GDP of a country. Gross fixed capital formation measures the expenditure on durable real assets, such as buildings, cars, plants and machinery, roads as well as «improvements» to land. In measuring the expenditure, sales of similar goods are deducted. Trade in real estate is excluded from gross fixed capital formation. The term «gross» indicates that consumption of fixed capital has not been deducted from the value and therefore comparable with GDP (Gross Domestic Product).

No fixed target rate has been set but the rate is expected to increase over time. This indicator is introduced instead of (but not replacing) the former «Expenditure on information technologies», which has been dropped from the short list, primarily due to problems with availability. Data are only available on the national level.

The rate of private sector investment can vary due to a multitude of reasons, such as the relative size of the public sector, the current business cycle a country is in, the amount of FDI and development assistance received, the current level of general economic development or, first and foremost, the overall structure of the economy. In the last case a production based economy tends to generate a larger gross fixed capital formation than is the case in a service based economy, where investments to a larger extent are being made in intangibles.

Due to these factors the results are difficult to interpret concisely. High rates of investment can be found in transition countries (such as the Czech Republic, Latvia and Slovakia), in advanced economies (such as Switzerland) and in Cohesion countries (such as Portugal) alike. Similarly, the lowest rates are in Bulgaria, Cyprus and Sweden.

At-risk-of-poverty rate after social transfers. – The at-risk-of-poverty rate refers to the share of persons with an equivalised disposable income after social transfers below 60% of the median equivalised disposable income in each country. It is a measure of the risks of poverty and social exclusion. This indicator is in accordance with the Lisbon European Council's high priority on social cohesion. It has no fixed target value but is expected to decrease over time. The larger the share of these persons, the more skewed is the income distribution of that country. Data are available on the national level only.

On the national level the most balanced income distributions are in the Czech Republic and Sweden, where the rate of persons with an income below 60% of the national average is less than 10%. Income distribution is also very even in Germany, the Netherlands, Denmark and Norway. At the other end of the scale are countries with large income differences such as Portugal, Greece, Ireland and Slovakia. In these, the share of persons at-risk-of-poverty amounts to a fifth of the total population.

These figures however reveal nothing of the spatial distribution of income within these countries. Experience from previous studies in the Nordic countries however suggests that these partially walk hand-in-hand. Thus regional income variations in for example Finland are also substantially larger than in Sweden.

Dispersion of regional unemployment rates. – The dispersion of regional employment rates is the only indicator on the short list that has a clear spatially cohesive objective. The reduction of regional disparities as measured by the dispersion of regional employment rates has long been a primary aim of EU territorial policy. It has no fixed target rate; disparities are merely expected to decrease over time. On the national level disparities are measured as the coefficient of variation of employment rates across regions (on NUTS 2 level) within countries. When wanting to measure this on NUTS 2 level instead, data on employment rates should correspondingly be available on at least NUTS 3 level. Unfortunately this is not the case. We have therefore here substituted this by measuring the regional variance of *unemployment* rates across all NUTS 2 regions in the ESPON space, well aware that this does not measure the same thing as employment rates. Furthermore, in 35 cases (such as Vienna, Brussels, Zurich, Prague, Hamburg, Madrid) NUTS 2 and 3 regions are one and the same meaning that the measured dispersion is nil. This however is simply a fact that cannot be overcome within the scope of this study. All data are based on labour force surveys.

Regional disparities are in general smaller in the European core than on its edges. Slightly larger regional disparities can be observed in the New Member States than in the old ones, albeit many Cohesion countries do also display high regional variations. Outside these countries the only regions with substantial variations (coefficient of variation above 10) are Languedoc-Roussillon in southern France, East Riding and North Lincolnshire on the English east coast and Övre Norrland in northern Sweden. Poland and Bulgaria however constitute the European extremes in this respect as the corresponding rate in regions such as Pomorskie, Dolnoslaskie, Mazowieckie, Zachodniopomorskie and Wielkopolskie in Poland and Severoiztochen and Yuzhen Tsentralen in Bulgaria exceeds 40.

The lowest regional variations can generally be found in Norway, the Netherlands and France and regional disparities are in this respect also marginal in several regions in Austria, Belgium and the UK.

Long-term unemployment rate. – Long-term unemployment is herein measured as persons unemployed for more than 12 months as a share of the total labour force. All data are based on labour force surveys. In accordance with the Lisbon objectives the share of long-term unemployed persons is expected to decrease over time but no definite target value has been fixed. Data for Norway and Switzerland are available on the national level only.

To a large extent, long-term unemployment is a mere mirror of the prevailing employment rate. Regions with a high employment rate tend to have low unemployment, also in the case of long-term ditto, and vice versa. And as the demographic composition of the population (mainly the share of working age population to that of the total) by and large reflects the employment rate, long-term unemployment is far from being merely a measurement of the functionality or dys-functionality of the labour market in general. Reducing long-term unemployment is nonetheless important for achieving the overall Lisbon goal of «greater social cohesion», because the long-term unemployed face a high risk of social exclusion. The long-term unemployment rate does certainly also reflect structural problems in the labour market, which lead to an under-utilisation of human resources. In addition, reducing long-term unemployment is important from a human capital perspective, because the long-term unemployed become detached from the labour market and lose their skills, which are increasingly needed in the face of rapidly ageing populations.

In several regions of Spain, southern Italy, Greece and the French Outremer a large share of the labour force have been unemployed for more than 12 months. However, the worst situation is generally in the New Länder of Germany, and in most transition countries. In altogether 23 regions this rate exceeds 10% of the labour force, a considerable figure when comparing with the average total unemployment rates for these countries and regions. In these regions long-term unemployed persons thus constitute a lion's share of all unemployed persons.

The opposite holds true especially for the UK, the Netherlands and Austria. Of the fifty NUTS 2 regions with the lowest rates, 18 are in the UK, 12 in the Netherlands and 8 in Austria. On the national level rates are also extremely low for Norway and Switzerland.

For those countries there are data on, regional variations are smallest in the Netherlands, Romania and Austria. Regional disparities with regard to long-term unemployment are on the other hand substantial in Italy and France as well as Slovakia and Bulgaria.

Greenhouse gas emissions. – The total emission of the six main greenhouse gases (the «Kyoto Basket») is measured as the relative change over time. Emissions are measured as CO₂ equivalents where each gas is weighted by its warming potential. The overall objective is to reduce these emissions over time and under the Kyoto Protocol the EU has committed itself to reduce emissions by 8% by 2008-2012, compared to the 1990 baseline. This reduction goal has

since (February 2005) been raised to a 15-30% reduction of emissions by 2020 and 60-80% by 2050.

Also this is a dynamic indicator not taking into account the starting point of gas emissions. New investments in cleaner and cleaning technology as well as a downscaling or closing of the old production structure has implied that emission reductions in the transition countries have been the largest, most so in Latvia (65% decrease) and Lithuania (58%). This reduction is however in most cases counterbalanced by mainly increased road transport.

The most rapid increases have occurred in Ireland, Spain and Portugal.

Energy-intensity of the economy. – Energy intensity is measured as gross inland consumption of energy divided by GDP at constant prices and indexed on 1996. The original unit is kgoe (kilogram of oil equivalent) per 1000 Euro. The data is aggregated from five types of energy (coal, electricity, oil, natural gas and renewable energy source) and four sectors of inland consumption (production, storage, trade and consumption/use of energy). No clear target rates have been fixed but the aim is to reduce this ratio over time. Data are available on the national level only.

Reductions in the rate can stem from two sources: either a decrease in energy consumption or an increase of GDP. This indicator is also by nature a dynamic one not taking into account the starting level. Thus countries where the share of energy consumption has been high at onset do expectedly display the highest decreases. This is the case for most of the New Member States. Norway, Spain and Portugal on the other hand display slight increases in the ratio.

Volume of freight transport relative to GDP. – The last indicator on the short list measures the volume of freight transport relative to GDP. It is an indication of the decoupling of freight transport growth from real GDP growth. Freight transport is measured in tonne-km per GDP in constant prices and includes transport by road, rail and inland waterways but excludes air (and pipeline) transport. Rail and inland waterways transport are based on movements on national territory, regardless of the nationality of the vehicle or vessel. Road transport is based on all movements of vehicles registered in the reporting country.

Data are provided on the national level and as indexed to the base year 1995 and do thus not take into account the level at the beginning. As it is a ratio this indicator can decrease either through a real decrease in transport or through an increase of GDP, the latter of which has few direct positive environmental consequences. Such is the case in e.g. Finland and Sweden as well as in many transition countries where transport has actually increased, but at a lower rate than production, therefore displaying a relative decrease in the ratio. Increases in the ratio again have mainly occurred in Estonia, Greece and Ireland.

Short list of structural indicators: a synthesis. – We have here merged the fourteen indicators from the five domains of employment, innovation and research, economic reform, social cohesion, the environment as well as general economic background into three groups mirroring the «ESDP triangle» of economic, social and environmental sustainability. Groupings could be made in several ways, all affecting the outcome of the synthesis indicator. We have here done as follows. First, upper and lower quartiles were calculated for each 14 indicator. Second, for each region the number of values in the lowest quartile was subtracted from the number of values in the highest quartile, thus ending up with a net value where each indicator has equal weight. Where no data were available on the regional level, we have provided each NUTS2 region in the ESPON space with the corresponding disaggregated country value. This implies that regional variations within a given country are based upon a few indicators alone, whereas the overall variations within the entire ESPON space are more diverse.

Figure 1 displays a synthesis of the eight economic indicators from the short list. These are: Gross Domestic Product per inhabitant; Gross Domestic Product per employed person; Employment rate; Employment rate of older workers; Gross domestic expenditure on R&D; Youth education attainment levels; Comparative price levels; Gross Fixed Capital Formation/GDP.

The first five are available on the regional level whereas the last three are dis-aggregations from national figures.

These indicators are to a large extent interlinked, i.e. they tend on the regional level to vary correspondingly across the European space. A clear core periphery pattern therefore emerges largely resembling e.g. GDP per capita. The European Pentagon including Switzerland and Rhone-Alpes in France as well as most regions in the Nordic countries constitute the economic stronghold of Europe, primarily scoring high on most of the indicators. Furthermore selected capital regions outside these countries (such as Lisbon, Madrid, Prague, Bratislava) stand out.

The lowest scores are nearly exclusively in the New Member States or the Cohesion Countries, Cornwall in the UK and the French Reunion constituting the most prominent exceptions. However, like in the Check Republic and Slovakia, also in other Eastern Europe most capital regions display higher scores.

The synthesis of three social indicators concerns: At-risk-of-poverty rate after social transfers; Dispersion of regional unemployment rates; Long-term unemployment rate.

The latter two are regional figures whereas the first one is a dis-aggregation from data on the national level. The three variables do not relate to each other to any larger degree, although there is a slight correlation between the latter two, where high long-term unemployment rates are more common in regions with high internal disparities with regard to total unemployment.

Thus figure 2 differs from the corresponding economic one. Apart from clearly discernible east-west differences, the dominance of the European core is

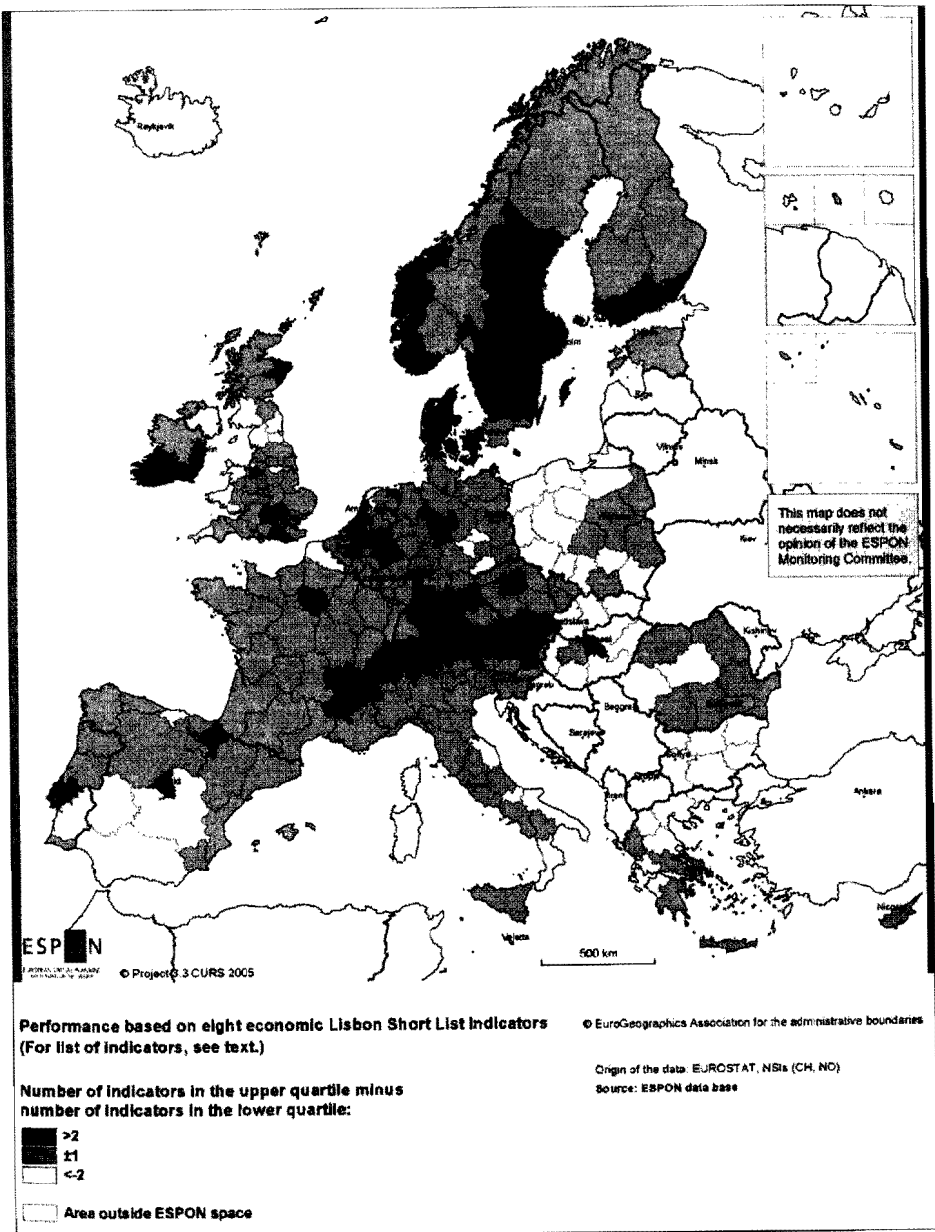


Fig. 1 – Regional Performance Based on Eight Economic Indicators

downplayed in this respect. Furthermore, many capital regions such as London, Paris, Lisbon or Helsinki in the west or Warsaw, Bratislava or Bucharest in the east display lower performance with regard to these social indicators as was the case with the corresponding economic ones. Much of Norway, the Netherlands or the Czech Republic on the other hand perform better in this respect.

One tentative conclusion based on these indicators is that performances on the economic and social scale do not entirely walk hand in hand, although they do not on the other hand also exclude one another.

Figure 3 depicts a synthesis on the national level of the three environmental indicators on the short list, namely: Energy-intensity of the economy; Greenhouse gas emissions; Volume of freight transport relative to GDP.

In general the three indicators correlate with each other. As was stated above, these indicators are by nature dynamic thus not taking into account the starting level.

The high performance of most transition countries is largely explained by this fact, as they are starting from substantially high levels. Also, as GDP is a denominator in two of the three indicators, the rapid relative economic growth in these countries is mirrored in the «reductions».

The Cohesion Countries as well as Norway are the worst performers, scoring low on all three indicators.

In figure 4 performance on all fourteen structural indicators from the short list has been merged into one. Seven of these are wholly or partially based on regional data whereas seven are merely dis-aggregations from data on the national level.

The overrepresentation (eight out of fourteen) of economic indicators is mirrored in the pattern. Thus the hard economic core of Europe is clearly discernible, also encompassing much of the Nordic countries. Norway falls short primarily due to low «performance» on the environmental indicators whereas the opposite holds true for e.g. Romania and eastern Poland due to better performance both on social and environmental indices.

The capital regions of Prague, Bratislava and Budapest are also among the top European performers in this respect. Territorial disparities are greatest in Slovakia basically dividing the country into the capital region on the one hand and the rest of the country on the other.

The cohesion countries (apart from Ireland) do also stand out as low performers in this respect, scoring fairly low on all three sectors.

Short list of structural indicators and core ESPON typologies. – The territorial dimensions of the ESPON space have been thoroughly mapped in previous ESPON projects and several typologies describing the territory have been constructed. In this chapter three such core typologies are examined in light of the composite synthesis indicators constructed above. This allows an examination as to the extent which the underlying assumptions of these typologies are reflected in the indicators on short list. The chosen typologies are:

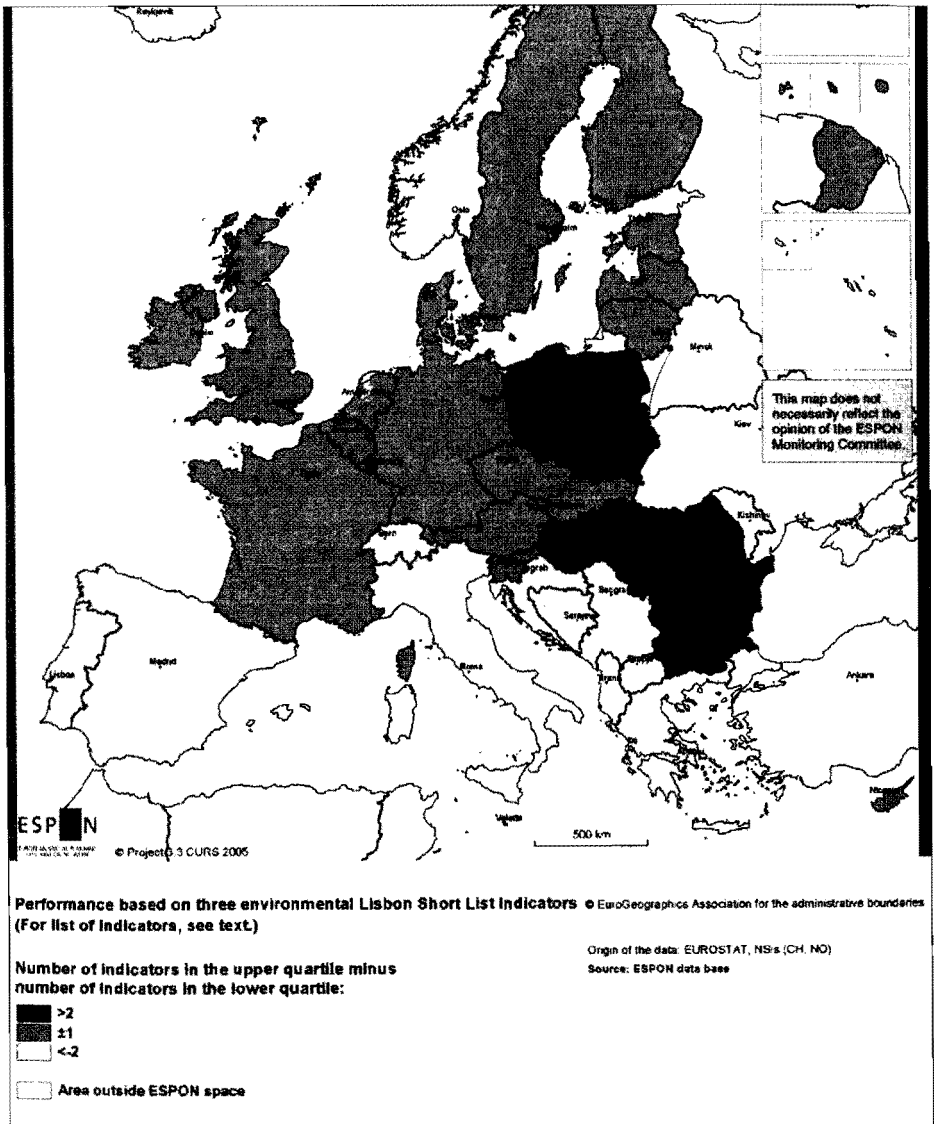


Fig. 2 – Regional Performance Based on Three Social Indicators

Table 1 – Core ESPON Typology

	Structural Indicator Short List Syntheses					
	All fourteen structural indicators		Eight economic structural indicators		Three social structural indicators	
	Average net sum		Average net sum		Average net sum	Three environmental structural indicators Average net sum
<i>Typology of Functional Urban Areas (ESPON 1.1.1.)</i>						
Highest level FUA in NUTS 2 -region	-1		-1		0	-1
No FUAs	-1		-1		0	-1
Regional/Local	0		0		0	0
National/Transnational	1		1		0	0
European/Global	0		0		0	0
Total						
<i>Urban-Rural Typology (ESPON 1.1.2)</i>						
High urban influence, high human intervention	1		1		0	0
High urban influence, medium human intervention	-2		-1		-1	0
High urban influence, low human intervention	0		1		0	-1
Low urban influence, high human intervention	-1		-2		-1	2
Low urban influence, medium human intervention	-2		-1		0	-1
Low urban influence, low human intervention	-1		0		0	-1
Total	0		0		0	0
<i>Potential Multimodal Accessibility (ESPON 1.2.2)</i>						
Index, ESPON Space=100						
over 140	3		2		0	0
110-140	1		1		0	0
90-110	0		0		0	0
60-90	-1		-1		0	0
below 60	-2		-1		-1	0
Total	0		0		0	0

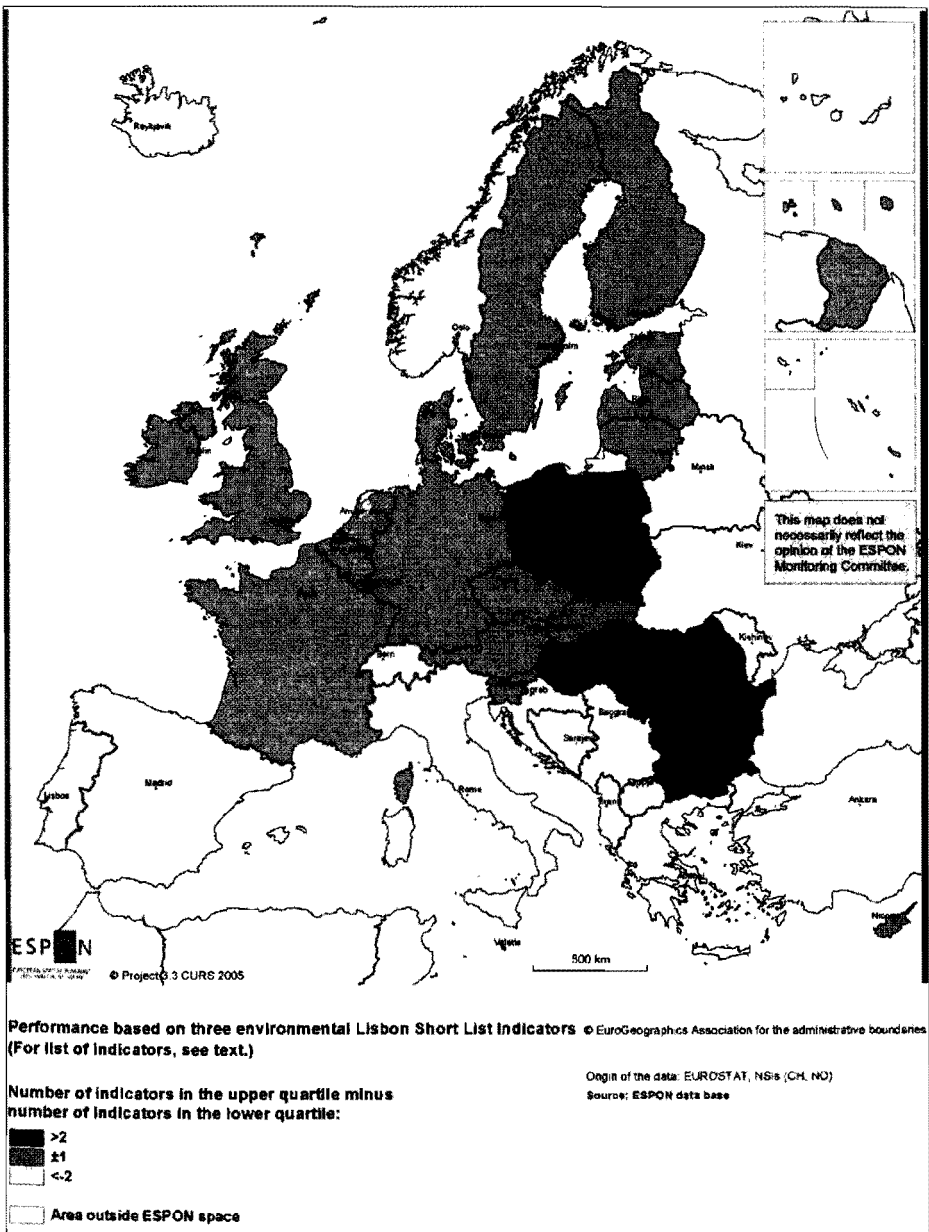


Fig. 3 – Performance Based on Three Environmental Indicators

A typology of functional urban areas (FUAs), ESPON 1.1.1;

Urban rural typology, ESPON 1.1.2; and

Multimodal potential accessibility, ESPON 1.2.2.

The main questions thus refer to whether economic, social, environmental and overall competitiveness and sustainability is higher in regions where there are large FUAs, in regions that have high urban influence and in regions where the accessibility potential is high.

Table 1 presents these data. As was the method in figures 1-4 above, for each region the number of each indicator's value in the lower quartile has been subtracted from that in the upper quartile resulting in a net sum. For each type of region (in the typologies) the mean value of these indicators has then been calculated. This implies that all averages are unweighted (i.e. not taking into account the population of the region).

All in all the 14 structural indicators are reflected in the typology of functional urban areas. Regions with European/Global FUAs have the highest average score whereas regions lacking FUAs or with only a regional/local ditto score the worst. The same hierarchy is evident when examining only the eight economic indicators taken as a group. However, there is no clear pattern as to the existence and magnitude of FUAs and social cohesion, whereas the pattern for the environmental ones is also nearly nonexistent, albeit in slight favour of large FUA regions.

Regarding urban influence and human intervention the results are not so clear cut. Nonetheless the overall average score is highest for regions where both the degree of urban influence and the degree of human intervention are high, i.e. typically urban areas. The same applies for the economic indicators alone whereas e.g. the composite social indicators is not in any way reflected in the hierarchy.

Finally with regard to multimodal potential accessibility the overall average of the 14 indicators correlates strongly with that of accessibility. Thus regions with a high accessibility do on average score high both in terms of the total result as well as on the economic composite indicator. This correlation gradually decreases with worsening accessibility. Once more, social and environmental competitiveness and sustainability are not reflected at all in accessibility.

Concluding remarks. – A critical comment to the choice of these indicators would be that they are synthetic, but not analytical. The structural changes of the globalising economy seem to indicate an increased outsourcing of movable production (compared to the prevailing domestic immovable production) and an increased share of the production of intangible goods (compared to tangible goods). Such structural changes could be useful to conceptualise when analysing the European situation in relation to the global one. Available statistics do not, however, lend themselves to this kind of analytic scrutiny.

Providing the 14 indicators are truly indicative of economic, social and environmental competitiveness and sustainability, then a definite conclusion could

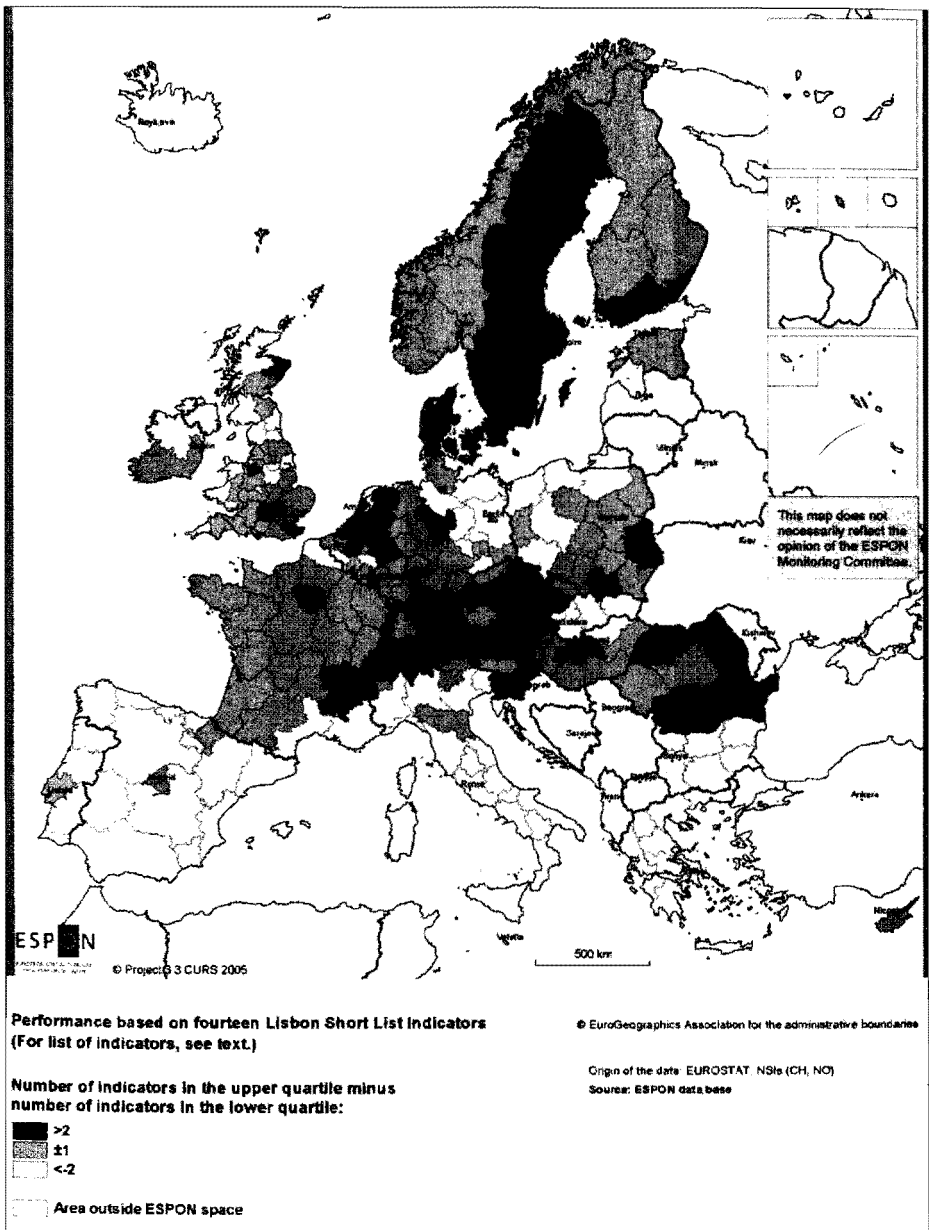


Fig. 4 – Overall Performance with regard to Fourteen Structural Indicators

be drawn that economic (or partially social) competitiveness and environmental sustainability do not necessarily correlate. Owing to the fragility of the indicators, however, such a conclusion may be premature to draw.

It seems obvious, however, that social processes reflected in social indicators are an effect of national traditions as well as welfare policies, which have emerged regardless considerations related to economic performance or, alternatively, as one possible strategy for gaining enhancing economic performance.

Providing that the welfare choice has been a deliberate one among those European countries characterised by developed welfare regimes, this strategy seems to have been successful in terms of economic performance. Moreover, with regard to the future, national welfare strategies seem to retard rather than advance, which simply seems to indicate that the old strategy is being reconsidered. Various parts of national welfare regimes in Europe are being increasingly dismantled. The reason is probably to be sought in the global expansion of markets, the quest for foreign investments and the way national competitiveness is conceived of in emerging global conditions.

On the global level, there is no system (or only very marginal ones) for the reallocation of resources according to social needs. Within Europe, there is also no EU policy aiming at the harmonisation of welfare regimes or of taxation policies for that matter. In these conditions, national economic success is connected to competition in providing advantageous business conditions in terms of low taxation and the reduction of other additional costs for productive investments, which of course diminishes the possibilities to keep up existing basis for taxation and consequent welfare regimes.

Environmental performance as reflected in the indicators probably mirrors the initial structure of the national economy and its alterations during the period under scrutiny more than national economic performance in quantitative terms (or changes in that performance) as such. While policies aiming at protection and conservation of natural assets may enhance the economic prospects of increased consumption, they may also be conceived as hampering competition with regard to productive investments on the global scale.

Consequently, the lack of income transfers on the global level could constitute a threat to the protection of people, the reproduction of labour, and protection of nature and culture on the European level. These tendencies are obviously connected to the lack of harmonised intra-European policies concerning these very same matters. An open question is to what extent a European welfare regime, including harmonised taxation, reallocation of resources on the European level according to ideas of social and territorial fairness as well as common policies for the protection of environment and culture would enhance the position of Europe as a whole in the global competition. Such questions of strategic importance cannot at the moment be addressed by available statistics, not to mention only these 14 ones.

SOURCES

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LA «SHORT LIST» DI INDICATORI STRUTTURALI ALLA LUCE DELLA COESIONE TERRITORIALE EUROPEA. – L'articolo offre un esempio di analisi statistica applicata alla stima della competitività territoriale, utilizzando la short list di indicatori strutturali messa a punto dalla Commissione Europea nel 2003. Per semplificare l'approccio metodologico, gli indicatori sono stati considerati a livello nazionale (NUTs 0) e successivamente estesi al livello regionale e sub-regionale secondo i criteri della strategia di Lisbona, posizionando nel ranking della competitività i 25 paesi dell'Unione oltre a quelli di potenziale ingresso e avendo come riferimento Canada, Stati Uniti, Giappone. I risultati ottenuti vengono infine confrontati con alcune tipologie di organizzazione territoriale.

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