

Sustainable Transport Planning & Development in the EU at the Example of the Polish Coastal Region Pomorskie

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ABSTRACT: The efficient and affordable transport systems are necessary for economic development and for the need to mitigate adverse externalities to health and the environment. Countries all over the world should support greater use of public and non-motorized transport and promote an integrated approach to policy making including policies and planning for land use, infrastructure, public transport systems and goods delivery networks, with a view to providing safe, affordable and efficient transportation, increasing energy efficiency and reducing pollution, congestion and also adverse health effects. The peripheral areas in the EU, especially those situated in regions with the undeveloped accessibility and low level of the economic development, have the opportunity to improve their availability, assuming the proper use of EU resources. The activity of the central, regional and local authorities will be of great importance during the implementation of the adopted development strategies and programmes for transport investments for the period 2007-2013. It is worth taking a closer look at one of the biggest current challenges that is the assurance of sustainable transport development & planning on the regional level. The goal of the paper is to present the research analysis, based on the available strategic documents and statistical data, on the present EU transport policy guidelines in the context of sustainable development concept and cohesion instruments, as well as transport planning and development in Poland with a special regard to one of its coastal regions Pomorskie voievodship.

1 INTRODUCTION

Transportation is expected to be the major driving force behind a growing world demand for energy. It is the largest end-use of energy in developed countries and the fastest growing one in most developing countries. Furthermore, adequate, efficient, and effective transport systems are important for access to markets, employment, education and basic services critical to poverty alleviation. Transport plays an important role in increasing the accessibility of particular regions. Creating development opportunities in peripheral areas through infrastructural investments is one of major EU goals. The peripheral areas in the EU, especially those situated in regions with the undeveloped accessibility - like the coastal region Pomorskie voievodship - and low level of the economic development, have the opportunity to improve their availability, assuming the proper use of

EU resources. The activity of the central, regional and local authorities will be of great importance during the implementation of the adopted development strategies and programmes. One of the biggest challenges is the assurance of sustainable transport development planning in compliance with the EU guidelines.

2 EU TRANSPORT POLICY IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT AND COHESION POLICY

In its transport policy the EU aims at changing the demand pattern through shifting potential demand from the road transport sector towards the rail, inland waterway and sea transport – short-distance shipping as well as promoting combined transport and collective public transport. Such solutions are

more environmentally friendly, thus helping pursue sustainable development. The transport policy goals are based on two assumptions (Commission of the European Communities, COM (2006):

- mobility is the key to Europe’s prosperity and the free movement of its citizens;
- the negative effects of this mobility, i.e. energy consumption and the impact on health and the environment, must be reduced.

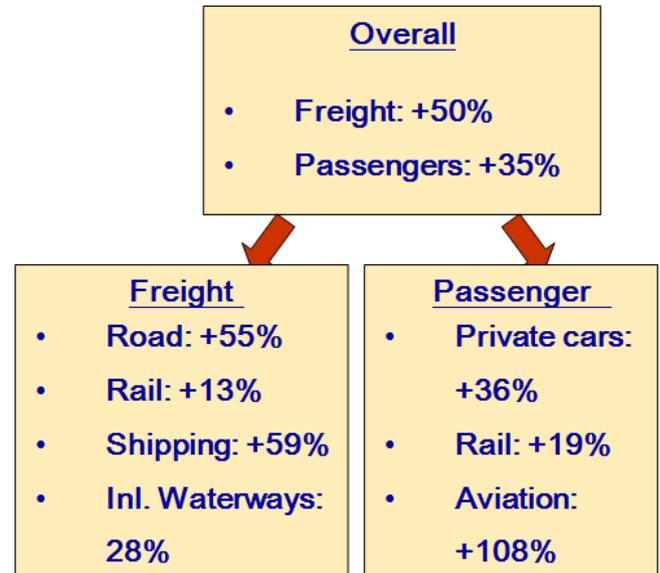
The EU transport policy might foster various aspects of the regional development policy pursued within the cohesion policy, and it may influence different sectoral policies implemented by cohesion policy instruments. The functioning of common transport policy instruments brought about many positive EU-wide changes, for instance (Grzelakowski and all., 2008):

- improvement of the quality of services provided and a wider offer of the form and mode of transport,
- reduced costs of transport and a decrease in prices of goods at the Community level, which limited inflation and stimulated exports and investment as well as stabilising the economies of EU Member States,
- improvement of the economic and spatial cohesion of certain parts of the Community,
- improvement of social mobility, resulting in greater labour market flexibility,
- ongoing standardisation of transport equipment and techniques, the development of modern methods and technologies as well as of intelligent traffic management (e.g. interoperability, telematics, the Galileo satellite navigation system).

The EU is fully aware that solely efficient transport sector provided with modern infrastructure and effective market mechanisms can guarantee necessary level of mobility of goods and people. Nowadays, in the age of globalisation and existing highly competitive world economic environment, the mobility is getting essential to the EU’s economies and communities. It is key to higher quality of life and welfare as well as fundamental for enhancing EU’s competitiveness and vital to achieving the goals of the EU’s ambitious strategies for growth and employment.

The mobility, directly connected with the economic expansion (rise of GDP), has been growing in the EU rapidly since the mid of 90s. Goods transport rose ca. 2.8% per year (1995-2006), i.e. more dynamic than GDP did and passenger transport ca. 1.7% per year in the same period. As a result goods and passenger transport grew by 33% and 18% respectively at that time and what is more, this dynamic growth is envisaged to continue in the next decade (see picture 1).

Characteristic trademark of the UE high mobility is, however, relatively outside share of road transport in the existing modal split. It accounts for 45,6 % in the servicing of total transport demand, whereas rail accounts for 10.5%, inland waterways contribute 3.3% and oil pipelines add another 3.2%. Maritime transport then accounts for 37.3% and air transport for 0.1% of the total traffic (all referring to the EU27 in 2006) (Grzelakowski, 2008).



Picture 1. Most likely 2000-2020 growth in transport demand in EU27
 Source: Ponthieu E., ‘European Economic and Social Committee (EESC). Towards an integrated and coordinated sustainable logistics and transport policy for Europe’. Roma, (19 June 2008), p.10.

As a result of currently formed modal split in the EU’s transport sector, and as predicted realistically by 2020, no chance for any shift in it towards the more environmentally friendly modes of transport such as rail and inland waterways, reaching the set up transport policy’s objective is thoroughly impossible. When this tendency is followed-up, sustainable mobility by still rapidly growing transport activity will even dash away. For, sustainable mobility this means disconnecting mobility from its many harmful effects for the economy, society and environment (Ponthieu E., 2008). The goals of the EU transport policy stem from the guidelines for development strategies set out at the level of the European Community. The most significant EU strategic documents include the Lisbon Strategy and the Goeteborg Strategy. The former emphasised the necessity to increase the competitiveness of the European area (COM(2005) 24 final), whereas the latter drew attention to ensuring sustainable development of this area (COM(2001)264 final. Recently, the EU has proposed a new document: Europe 2020 Strategy (COM(2010)2020 final). The Commission has identified three key drivers for growth, to be implement-

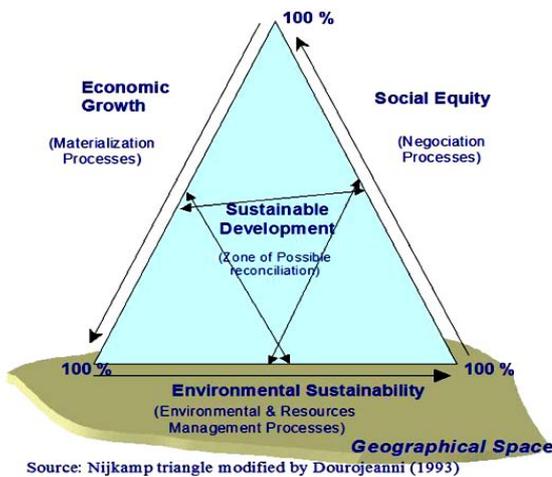
ed through concrete actions at EU and national levels: smart growth (fostering knowledge, innovation, education and digital society), sustainable growth (making the production more resource efficient while boosting the competitiveness) and inclusive growth (raising participation in the labour market, the acquisition of skills and the fight against poverty).

2.1 Sustainable development concept

As it was defined in the Brundtland Report the sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts (WCED, 1987):

- the concept of **needs**, in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of **limitations** imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

It is possible to graphically represent (picture 2) the achievement of sustainable development by the simultaneous attainment of three objectives: environmental and natural resource sustainability, economic growth and social equity.



Picture 2. Sustainable Development triangle

Source: Dourojeanni, A. 'Procedimientos de Gestión para el Desarrollo Sustentable: Aplicados a Microrregiones y Cuencas', Santiago: Instituto Latinoamericano y del Caribe de Planificación Económica y Social de las Naciones Unidas (ILPES). Documento 89/05/Rev1., (1993); Nijkamp, P, 'Regional Sustainable Development and Natural Resource Use. In World Bank Annual Conference on Development Economics', Washington D.C., (1990), p.10.

The attainment of environmental sustainability refers to the balance between the human rate of use of the environment and its resources, with natural re-

sources rates of growth and environmental resilience. In similar terms, the attainment of economic growth is related, among other things, to the generation of employment, food, income and wealth (net economic benefits). Social equity refers to the need to give due consideration to the need to generate equal opportunities among people (generational, gender, cultures) to have access to the natural resources base for its use and to the wealth generated. Therefore, the attainment of sustainable development implies the balance between these three objectives or, in other words, to their simultaneous achievement.

Climate change is the most pressing global environmental challenge, and one that calls for major efforts and active steps on the part of industrialised countries, in line with their common and differentiated responsibilities, as well as working in conjunction with transition and developing countries. Any such action must be taken within the framework of the UN Framework Convention on Climate Change (UNFCCC).

According to the Division for Sustainable Development from the United Nations' Department of Economic and Social Affairs, current patterns of transportation development are not sustainable and may compound both environmental and health problems. (www.un.org/esa, 2010). Therefore, there is a need for urgent action, ranging, inter alia, from the promotion of integrated transport policies and plans, the accelerated phase-out of leaded gasoline, the promotion of voluntary guidelines and the development of partnerships at the national level for strengthening transport infrastructure, promoting and supporting the use of non-motorised transport and developing innovative mass transit schemes. The international co-operation is required in order to ensure transport systems support sustainable development. The efficient and affordable transport systems are necessary for poverty alleviation and the need to mitigate adverse externalities to health and the environment. Countries all over the world should support greater use of public and non-motorized transport and promote an integrated approach to policy making including policies and planning for land use, infrastructure, public transport systems and goods delivery networks, with a view to providing safe, affordable and efficient transportation, increasing energy efficiency, reducing pollution, reducing congestion, reducing adverse health effects and limiting urban sprawl (www.un.org/esa, 2010).

There is a need of the full integration of the commitments made by the EU Member States with regard to the Kyoto Protocol and, beyond that, the definition of quantified objectives for reducing greenhouse gas emissions in accordance with the decisions taken by the European Council and the Envi-

ronment Council in March 2005 - namely to reduce such emissions by between 15 and 30% by 2020 and by between 60 and 80% by 2050, compared with the levels measured in 1990.

2.2 EU cohesion policy

The implementation of the sectoral EU transport policy is supported by the horizontal cohesion policy, especially through structural funds and the Cohesion Fund. The basic goals of the current transport and cohesion policies are shown in Table 1.

Table 1. The goals of the EU transport and cohesion policies.

Goals of the EU transport policy	Goals of the EU cohesion policy
permanent and sustainable development according to the Lisbon and Goeteborg Strategies	sustainable development of all areas preserving the internal economic, social and territorial cohesion through a set of legal and financial instruments
promotion of rail, sea and intermodal transport	solidarity: mitigating the effects of the absence of internal balance at the Community level
integrated regional systems of public transport	cohesion: everyone benefits
development of logistics aimed at obtaining the synergy effect between particular modes of transport and their integration in logistic chains	convergence through investing in infrastructure and human capital, supporting innovation and knowledge-based society, the environmental protection and efficient administration
promotion of intelligent transport systems	regional competitiveness and employment – investing in human resources, entrepreneurship, innovativeness and the development of labour markets fostering social integration
development of trans-European networks	European territorial cooperation – strengthening the cross-border, transnational and interregional cooperation

Source: European Union transport and cohesion policies in the context of rural development, 2008.

It is necessary to support polycentric territorial development of the EU in order to make better use of the available resources in regions (Territorial Agenda, 2007). However, the parameters and monitoring systems to measure territorial cohesion should be defined. Those could be transport accessibility or access to public transport services. Under the transport and cohesion policies attention should be paid to both the territorial cohesion of the whole Europe and the cohesion of specific territories (for example regions), particularly of peripheral areas. It appears that two parallel action strategies might be

the solution: the top-down and bottom-up approaches. The former would involve, in accordance with the solidarity principle, the strengthening Community-wide cohesion at the EU level through legal, organisational and financial instruments. The latter strategy would require a regional approach: cohesion development would be initiated by the regions themselves to a larger degree than at present. There is a need for specific financial instruments prepared in agreement with the European Commission to be used, for instance, in the process of creating metropolitan transport systems or cross-border cooperation, as well as in the development of rural infrastructure, especially enhancing access to cities. Such a system would provide EU support and, at the same time, promote more active regions, mobilising their endogenous potential. It would ensure harmonious development of the whole EU area as well as becoming an important diversifying element. Such a scheme would be competitive, but still stimulating for all the players (Przybyłowski, 2008).

The cohesion policy and its instruments should contribute to the harmonisation of all sectoral policies at the European and national level in order to pursue the Community objectives more efficiently than at present (European Commission, May 2007). But the effectiveness of the EU transport and cohesion policies may be compromised due to significant difficulties as there are some dissimilarities at the implementation level. The transport policy, to a larger degree, aims at liberalisation, free competition, whereas the cohesion policy is more oriented towards interventionism. Therefore, obtaining the synergy effect in regional development and building a coherent and balanced transportation system poses a challenge to the enlarged EU. The key issue is to what extent backward regions should be supported.

It should be emphasised that the development and modernisation of transport infrastructure does not automatically stimulate regional development. While enhancing the economic potential of regions, a comprehensive/integrated approach should be considered so as to ensure that efforts at providing more equal opportunities for the poorest EU areas bring the anticipated results. There are examples of ineffective use of funds throughout Europe, e.g. in East Germany and Greece. Such investment should be coupled with other factors such as material and human capital, the competitive position of local companies, an investment-oriented legal framework (including fiscal regulations), local entrepreneurship. Without those, transport infrastructure cannot become an independent factor of regional development.

As has already been mentioned, the goal of the current EU cohesion policy (see Table 1) is to reduce disparities in the development of particular regions, especially of peripheral areas. This policy is

of great significance since it aims at mitigating the effects of the absence of internal balance at the Community level. While creating common policies at the supranational level, the Community remains too concentrated on market processes, neglecting the stimulation of long-term adjustments concerning socio-economic structures. The underlying values can be defined as solidarity and cohesion/harmonisation development. One of them is solidarity since this policy is supposed to be beneficial to citizens and regions in a worse economic and social situation as compared to the EU average. The other is cohesion because everyone would benefit from reduced disproportions in income and well-being between the poorer and wealthier countries and regions. The degree of such disparities is measured in three aspects: economic (mainly by the purchasing-power-parity-based GDP per inhabitant of the region), social (*inter alia* by the unemployment rate in the region) and spatial (usually by a measure of the number of consumers over a given period in a given region) (http://ec.europa.eu/regional_policy, 2011). Structural indicators are also important. They are used by the European Commission in the evaluation of the EU Member States' progress in the implementation of the Lisbon Strategy goals. They include five main socio-economic domains of employment, innovation and research, economic reform, social cohesion and the environment, as well as the general economic background.

In 2007, the EU introduced a modernised and more integrated cohesion policy. It covers the period between 2007 and 2013. The combined budget of structural funds and of the Cohesion Fund in this period will amount to ca. EUR 308 billion, accounting for 36% of the total EU expenditure in the period in question. Three funds are the instruments of the amended cohesion policy: the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund. The appropriations were divided into three categories. 81.5% of the total amount was assigned to reducing the disproportions between the poor and wealthy regions (the Convergence objective), while 16% – to the improvement of the competitiveness of the poor regions and job creation (the Regional competitiveness and employment objective). The remaining 2.5% is aimed at supporting cross-border cooperation between frontier regions (the European territorial cooperation objective). It should be emphasised that the compensatory nature of the cohesion policy (in response to the needs of lagging regions) in the amended Lisbon Strategy of 2005 was replaced with active creation of conditions for development. At present, the focus is on the promotion of competitiveness and creating new jobs, not only on standard convergence activities. Thereby the gap between the EU pursuit to increase its competitiveness on the one

hand, and to support regions merely to reduce differences on the other hand is diminishing.

Authors of some analyses point out that the concentration on connecting regional capitals in new Member States may contribute to increasing the differences within these countries and lead to an anti-cohesion effect. Due to the focus on the development of TEN-T networks, the EU actually marginalises expenditure on the remaining transport networks, which leads to the imbalance between European and regional projects. Cohesion reports unambiguously show that as the cohesion between Member States grows, the development gap between particular regions within these countries widens. Unfortunately, this negative trend is also observed in Poland.

3 TRANSPORT NETWORK PLANNING AND DEVELOPMENT IN POLAND

The transport system in Poland is neither sustainable nor efficient in economic or technical terms, which entails specific environmental and social consequences. From the point of view of Poland's transport needs, the accession to the European Union in 2004 created new possibilities in the field of extension and modernisation of transport infrastructure since within the framework of the common transport policy and cohesion policy there are instruments and funds available for these purposes. At the same time, Poland's membership in the European Union involves the introduction of and compliance with a number of requirements concerning transport infrastructure.

The present condition of transport infrastructure in Poland does not meet the expectations of users of national roads, railways and other transport sectors. It also fails to provide appropriate handling of international cargo flows under the rapid growth in traffic, which has been observed for more than a decade. Furthermore, transport users have been increasing their requirements regarding the quality of transport services, in particular reduced transport time, improved safety and ensuring intermodality of the transport process. Significant decapitalisation of infrastructure facilities and equipment as well as not always appropriate spatial distribution of specific network elements may maintain or generate regional disproportions within Poland. Major infrastructural gaps can be found in all the transport sectors. Due to the absence of an appropriate network of motorways, express roads and high-speed rail system, the existing transport network structure does not contribute to the effective allocation of resources and does not ensure appropriate quality of passenger and cargo transport. Sea ports, inland waterway ports and airports should also be modernised.

The most important tasks in the field of road infrastructure development from 2007 to 2013 include:

- extending the network of motorways and express roads;
- programme of improving the pavement on roads where heavy truck traffic can be observed;
- eliminating the shortcomings in the current road network maintenance;
- programme of building by-passes or ring roads around towns, ensuring that such roads are secured against new building developments;
- modernisation of national road sections aiming mainly at improving traffic safety, including the launch of a programme for reducing traffic on roads running through small towns and villages,
- improving the conditions for transit traffic as well as for origin-destination traffic within metropolitan areas.

The special Operational Programme: Development of Eastern Poland comprises plans to build or modernise road sections which will contribute to improving connections between the most peripheral parts of Poland and the transport network.

The density of gminas (the basic unit of the country's territorial structure) roads in Poland was 47.8 km per 100 km², while the overall length of gminas roads amounted to ca. 150,000 km at the end of 2004. At the same time, the density of access roads to agricultural and forest land was 90.1 km per 100 km² and their overall length reached ca. 289,000 km. Spatial distribution of roads is strongly connected with population density and economic characteristics of the area in question, therefore the highest density of the road network is found in the Małopolskie, Śląskie, Opolskie, Dolnośląskie and Wielkopolskie voivodships. The rather well-developed network of access roads to agricultural and forest land is nevertheless characterised by very low pavement quality. At the same time, the quality of gminas roads is directly connected with bus communication networks (both municipal and private), which enable local residents to get to urban centres and to commute to their non-agricultural jobs. It is of great importance particularly in the context of the liquidation (due to low profitability and financial inefficiency of local governments) of regional rail connections in many voivodships. Thanks to EU support it will be possible to reduce this development gap.

However, as regards the development of local roads, one of the reports carried out for the Ministry of Regional Development indicates that such roads do not form a coherent network and are not sufficiently integrated into the voivodship development strategy implementation. Considering IROP projects implemented so far, the complementarity index for local roads (ranging from 0 to 3) was 1.6 on average. The Podkarpackie, Świętokrzyskie and Lubelskie

voivodships used the EU support the most efficiently, whereas the worst performer was the Pomorskie voivodship (<http://mrr.gov.pl>, 2011-02-01).

There is a need for instruments increasing the innovativeness of technical solutions in the field of transport infrastructure and therefore providing a greater choice between various modes of transport. The routine approach to increase the number of roads and motorways, consisting in allocating most funds to these goals, contradicts the principle of sustainable development. After decades of intensive development of road infrastructure in the EU-15, for ca. 20 years a greater emphasis has been put on the improvement of the railway, inland and sea transport infrastructure. Similar observations can be made as regards the improvement of public transport systems in major European cities, used by a growing number of commuters who switch from passenger cars to public transport. Integrated regional public transport systems represent an EU requirement: Poland is obliged to implement this directive by 2013. The integrated regional public transport systems include integrated tickets covering all means of public transport, along with numerous systems of group, zone or time discounts encouraging passengers to choose public transport services. Such systems are also strengthened by the policy of imposing very high parking charges in the cities, or by locating parking lots for bicycles near train or underground stations. Such solutions are yet to be introduced in Poland. The maturity of urban communities and switching to integrated urban transport services will become a new qualitative factor affecting the structure of demand for transport (Burniewicz, 2008).

Finally, there is a need to combine the processes of extending necessary transport infrastructure with the rule of balancing development by seeking selective and optimal solutions at the level of regions and at the local level. Other instruments include much wider application of the principle of genuine rather than only facade social participation in the decision-making on roads, motorways and other infrastructural lines, in order to balance the interests of local and regional communities and their development ambitions as well as taking account of environmental protection aspects in investment processes in a much more strategic way than it was the case in the past (Gończ, 2007). In Poland, further decentralisation of the state and public finance, along with a more extensive scope of decisions taken at the regional level would also contribute to the harmonisation of investment activities and sustainable development challenges.

4 TRANSPORT INVESTMENTS PLANNING AND DEVELOPMENT ANALYSIS IN THE POMORSKIE COASTAL REGION

Considering the social and economic situation as well as the SWOT analysis for the voivodship, the authorities of the Pomorski region prepared the Development Strategy for the Pomorskie voivodship until 2020 (www.woj-pomorskie.pl, 2007); the strategy aims at overcoming the weaknesses in order to make the best possible use of the opportunities.

It is compliant with the strategic goal covered by the NSRF¹⁹, envisaging the Pomorskie Voivodship of 2020 to be an important partner in the Baltic Sea region, – offering a clean environment, high quality of life, development driven by knowledge, skills, active and open communities, a strong and diversified economy, cooperation based on partnership, an attractive and coherent area, conserving multicultural heritage as well as solidarity and maritime traditions. The implementation of this vision is based on three new priorities, strategic objectives and specific courses of action (Table 2).

Table 2. Priorities and strategic objectives of the Pomorskie voivodship until 2020.

COMPETITIVENESS	COHESION	ACCESSIBILITY
1. Improved conditions for enterprise and innovation	1. Employment growth and increased labour mobility	1. Efficient and safe transport system
2. High level of education and research	2. Strong, healthy and integrated society	2. Improved operation of technical and ICT infrastructure systems
3. Development of an economy based on specific regional resources	3. Civil society development	3. Better access to social infrastructure, particularly in structurally disadvantaged areas
4. Efficient public sector	4. Shaping social and spatial processes to improve the quality of life	4. Conservation and improvement of the natural environment
5. Established position and effective links between the Tri-City Metropolitan Area (<i>Trójmiasto</i>) and other, mainly Baltic, regions	5. Strengthening sub-regional development centres	

Source: Development Strategy for the Pomorskie Voivodship – July 2005), www.woj-pomorskie.pl/downloads/ASRWP_tekst, 2007-08-09, p. 23.

The voivodship authorities were obliged to develop a Regional Operational Programme for the Pomorskie Voivodship for 2007-2013 as an instrument for the implementation of the NSRF within the region and, at the same time, a document enabling EU support to be obtained under the Community regional policy objective “Convergence.” The programme is in line with the provisions of the following (ROP, 2007):

- - Development Strategy for the Pomorskie Voivodship,
- - National Strategic Reference Framework,
- - Community Strategic Guidelines on Cohesion.

The overall strategic objective of the Programme is therefore the improvement of economic competitiveness, social cohesion and spatial accessibility through sustainable use of specific features of the potential. ROP financial instruments using the EU structural funds are shown in Table 3.

As shown in Table 3, the voivodship authorities intend to allocate the highest share of the funds (23%) for the development of the regional transport system, which may be regarded as a good decision since the transport system in the Pomorskie voivodship is inefficient. Major shares of the appropriations will also be granted to small and medium-sized enterprises (21%), basic local infrastructure (14%) and projects concerning the development of metropolitan functions (12%). A relatively small amount has been provided for tourism and cultural heritage (only 5%); the lowest share of funds was allocated for technical assistance (3%). The regional transport system (priority axis 4) in the Pomorskie voivodship will receive a total of EUR 271,420,167 (with the Community contribution of 75%). As regards other priority axes of importance to infrastructure development, the following are worth mentioning : axis 3 concerning urban and metropolitan functions (over EUR 150 million), axis 6 regarding tourism (almost EUR 60 million) and axis 8 aiming at the improvement of basic local infrastructure (more than EUR 145 million). A strong preference will be given to projects in line with the development programmes of the whole transport infrastructure system covering all sectors and following from the Transport Development Strategy of the Pomorskie voivodship.

¹⁹ The goal under the NSRF is the creation of the conditions for improving the competitiveness of knowledge-based economy and entrepreneurship ensuring an increase in employment and greater social, economic and territorial cohesion.

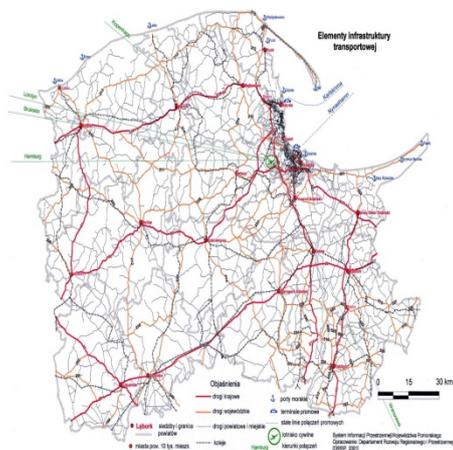
Table 3. The structure of ERDF funds allocation by Priority Axis of ROP PV.

Priority axis	ERDF funds allocation (%)
1. Development and innovation in SMEs	21.0%
2. Knowledge-based society	7.0%
3. Metropolitan functions	12.0%
4. Regional transport system	23.0%
5. Environment and environment-friendly power industry	7.0%
6. Tourism and cultural heritage	5.0%
7. Healthcare and rescue system	4.0%
8. Basic local infrastructure	14.0%
9. Local social infrastructure and civil initiatives	4.0%
10. Technical assistance	3.0%
Total	100.0%

Source: Own study based on: ROP (Regional Operational Programme) for the Pomorskie Voivodship 2007-2013, Annex to Resolution of the Pomorskie Voivodship Executive Board No. 75/18/07), 5.02.2007, p. 64.

ROP PV will be financed from the ERDF as well as with national funds, and the contribution from the ERDF – according to Council Regulation No. 1083/2006 – was calculated with reference to the total eligible expenditure, including public and private expenditure. The amount allocated to investment will total EUR 1,227.1 million, of which the national public and private contribution will be EUR 240.7 million and EUR 101.4 million respectively. Almost half of the budget will be used for the implementation of the Lisbon goals. Other funds from other programmes under the EU cohesion policy, the common agricultural policy and national policies and strategies will also be of considerable importance (Table 4). (www.mrr.gov.pl, 2008).

The competitiveness and cohesion of each region largely determine the condition and development prospects of transport infrastructure. The transport system of the Pomorskie voivodship consists of all types of land, water and air transport (picture 3).



Picture 3. Transport infrastructure of the Pomorskie Voivodship coastal region.

Source: Development Strategy..., op. cit., www.woj-pomorskie.pl/downloads/ASRWP_tekst, 2007-08-09, p. 15.

The main development problem of the region is the low quality and limited coherence of the transport system. Despite the good location at the crossing of two transport corridors, transport accessibility of the voivodship is quite low against other central and southern regions of Poland and the EU. Western and eastern parts of the voivodship require the improvement of accessibility and quality of transport connections with the regional economic centres, mainly with the Tri-City agglomeration (*Trójmiasto*). The road network does not ensure good access to Gdynia and Gdansk ports. Low quality of transport infrastructure prevents appropriate quality of passenger and cargo transportation services. The current condition increases business costs, lowers the efficiency and competitiveness of companies, thus reducing the attractiveness of the region for foreign investors. It also has a negative impact on the residents' quality of life.

The road network of the voivodship is over 19,500 km long and covers: 8 national roads, 69 voivodship roads as well as *poviat* and *gminas* roads. There are almost no roads of the highest technical standard, and the majority of roads in the region are of low quality and require modernisation. Another weakness is the poor technical condition of bridges and overpasses, of associated infrastructure and of infrastructure related to traffic safety and organisation. Moreover, a significant development barrier is the insufficient capacity of some road sections and the absence of ring roads for transit traffic. Due to reduced cargo and passenger traffic, the overall length of the railway network is also gradually decreasing. The railway lines currently in use in the Pomorskie voivodship are limited to 1,308 km (density of 7.2 km/100 km²). The following railway lines included in the Trans-European Transport Network (TEN-T) run through the voivodship: line E-65 (Gdynia-Warszawa-Zebrzydowice), CE-65 (Katowice-Tczew) and Gdynia-Kaliningrad line. As compared to other transport modes, rail transport fails to be competitive. Railway lines and the rolling stock suffer quick decapitalisation, and more and more regional lines are being closed.

In recent years air transport in the Pomorskie voivodship has been characterised by a rapid growth in traffic. The Lech Walesa Airport in Gdansk plays a dominant role in the handling of passengers. For example, in 1991-2005 the volume of cargo doubled, and the number of passengers carried increased almost eight times. Forecasts of increased air traffic point to the need of extending the airport and putting other airports in the voivodship into operation, not as yet used by civil aviation, to serve as complementary facilities. The voivodship authorities decided on situating such an airport in Gdynia – Babie Doły.

Finally, it should be mentioned that mere investment in transport is not enough to stimulate economic growth in the regions. There is a need for rational strategies and regional programmes to include infrastructure investments in a wider context (Parteka, 2007).

The support for regional development via EU instruments brings about improved territorial cohesion of some areas, like Pomorskie region. At the same time, there are also negative results of allocating the European funds for the implementation of the objectives set out by these policies, especially as regards peripheral areas, which leads to neglecting certain aspects, e.g. transport connections between metropolitan areas, towns and villages.

5 CONCLUSIONS

- 1 Sustainable transport planning and development is a great challenge for the EU, national and regional authorities. Neglecting the development of regional and local transport networks (e.g. via the extension of trans-European networks) can be an example of such a dilemma. Another problem is excessive concentration of expenditure on infrastructural objectives which are not properly linked to other development measures or, for instance, at the expense of innovation measures.
- 2 Two main dimensions of the EU transport policy, i.e. reduced environmental pressures and sustainable mobility of human resources are significant for other EU policies, e.g. with regard to improved transport in cities and metropolitan areas or support for the development of polycentric networks.
- 3 Despite the declared willingness to pursue sustainable development at the level of operational documents drawn-up by the government administration, in Poland the most funds are allocated to road infrastructure (national roads: 33.3%, motorways: 16.6%). This is also the case in the Pomorskie voivodship, although environment-friendly projects are given more attention due to the coastal location of the region. However, the co-financing rate for infrastructure projects still represents a significant obstacle. The EU contribution of up to 75% (and in the case of some investments only 50%) may pose a major problem to many potential beneficiaries within the region.
- 4 The case of Pomorskie coastal region proves that it is necessary to diversify transport investments in order to ensure sustainable development, which could be fostered, *inter alia*, by integrated regional public transport systems. Partnership based on an extended and efficient institutional cooperation network, coordinated by voivodship governments and covering local and regional authori-

ties, socio-economic partners, universities, business organisations, non-governmental organisations, government institutions, as well as other Polish and foreign regions and institutions, might also prove helpful in the sustainable transport planning and development implementation.

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