Slovak Spatial Development Perspective

Based on the Slovak Spatial Development Perspective 2001,
as amended by the Slovak Spatial Development Perspective 2011 – Amendment No. 1
to the Slovak Spatial Development Perspective 2001

Ministry of Transport, Construction and Regional Development of the Slovak Republic,
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Department of Spatial Planning
Námestie slobody 6
810 05 Bratislava

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Author: Ing. arch. Vojtech Hrdina, PhD., AUREX, spol. s r.o.
Content supervisor: Ing. arch. Želmíra Kalinová, Department of Spatial Planning of MTCRD SR

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1 Introduction

The development of economic and social activities of the society is directly related to the requirements for use of a territory and the creation of quality space in order to fulfill the requirements of the individual activities. The requirements for the change and the quality of space in existing built-up areas in towns and communities as well as requirements for new areas for various activities evolve with quantitative and qualitative requirements of economic and social activities of society for the development. Requirements for new space grow also due to the differentiated requirements of the population for the type and quality of the living environment. Along with the growth of these requirements, there will be an increasing demand for the provision of quality infrastructure, especially for fast and quality access by individual territories to higher national and international centers and communication networks.

The requirements for new use of a territory and for new space are confronted with increasingly strict requirements for the creation of quality environment that fulfills all environmental requirements and requirements for the preservation and protection of existing natural and cultural heritage. We are particularly referring to the requirements for the preservation of natural elements for future generations, as expressed in the principles of sustainable development. Therefore, the respective international agreements wee adopted and the Slovak Republic acceded to them and has enforced their principles in all development and planning documents.

Territorial planning plays a unique and decisive role in the formation of landscaping and settlement environment. Territorial planning documents become important and are respected at all hierarchical levels of management and decision-making. At the national hierarchical level, the importance of the territorial planning documentation is reflected not only in relation to the hierarchically lower levels, but also in relation to international spatial interconnections. International spatial relations become apparent not only in border areas, but increasingly affect the entire territory of the Slovak Republic. The importance of collision-free and quality spatial interconnections with the territories of neighboring countries, including Europe-wide dimensions, will steadily grow and influence the development of individual regions.

The Slovak Spatial Development Perspective is a national territorial planning document that reflects the ideas regarding optimum spatial interconnections at the national and international level. The Slovak Spatial Development Perspective is a long-term strategic document that includes a significant section on the indicative nature of the planning process. Its ambition is not to specify definite or final picture of the spatial arrangement and functional utilization of the territory of the Slovak Republic. In accordance with valid legislation it contains the respective binding part, but it is an open planning document that creates a platform for further discussion. The Slovak Spatial Development Perspective is a flexible plan that leaves room for further research, consultations, and other inputs. It also offers the possibility to specify and supplement its indicative and binding parts in accordance with the valid Act No. 50/1976 Coll. on Territorial Planning and Construction Order (Building Act), as amended.

The Slovak Spatial Development Perspective is procured by the ministry responsible for spatial development and territorial planning.

The Ministry of Environment of the Slovak Republic procured the Slovak Spatial Development Perspective 2001. The government of the Slovak Republic approved this document and declared its binding part by the regulation of the government of the Slovak Republic.

In 2005 the Report on the Actual State of the Spatial Development Perspective was prepared that served as the basis for procurement of an update of the indicative part of the document in 2006.

In 2009 the Report on the actual state of the Spatial Development Perspective recommended the elaboration of Amendment No. 1. The Amendment No. 1 was adopted by the resolution of the government of the Slovak Republic and the binding part of the amendment was issued by the regulation of the government of the Slovak Republic in 2011.

The Slovak Spatial Development Perspective analyses issues of spatial development within a set of related cross-sectional issues such as spatial development as a part of the single European area, spatial development and environmental policy, spatial development and regional policy of the Slovak Republic. It also deals with issues related to the development of the individual sector systems, in particular the relation with the economic development, development of transportation systems and superior technical infrastructure.

2 Present developments in territorial planning at the national level

Territorial planning at the national level in Slovakia has a long tradition. The first concrete signs and efforts that focused on the coordination of settlement development at the national level can be found in the sixtieths of the last century. These efforts resulted in the development of the Project of Urbanization of the Slovak Socialist Republic, which was adopted by the government of SSR in 1976. The Project of Urbanization of the Slovak Socialist Republic was updated in 1983 and 1988.

In 1960s the concept of Spatial Development of the country and the development of settlement in the Slovak Republic was based on the theoretical principles of a system of settlement centers, the creation of agglomerations and planning areas.

The most important moment in the development of the settlement and urbanization of Slovakia was the application of the system of settlement centers. The adoption and implementation of the system of settlement centers was an important step from the viewpoint of the formation of the settlement system and the spatial structure of the economy. Seventy-seven settlement centers of district importance were selected as the most important service and work centers, in which practically all decisive investment activity was concentrated in accordance with the principles of directive and central planning. In late 1980s more than 60% of industrial and service jobs were concentrated in these centers. They also became a source of employment opportunities for the population of rural settlements in their hinterland within the framework of daily commuting. Consequently, a network of mid-sized towns, evenly distributed throughout the territory of the Slovak Republic, was established in the territory of the Slovak Republic. These towns, including their surrounding areas, created functional homogenous units that represented and still represent the real local job markets.

After the year 1990 territorial planning in the Slovak Republic had to cope with new requirements at all levels of planning. Work at the national level on the national planning instruments continued. The ambition and the objective were to reflect the spatial relations in new economic conditions. In 1994 the Slovak government adopted a territorial-technical document in the form of the first draft of the Slovak Spatial Development Perspective and in 1997 the second draft of the Slovak Spatial Development Perspective. Efforts within the territorial planning process at the national level resulted in a territorial planning documentation at the national level that is a legal document included in the Building Act. The planning document called the Slovak Spatial Development Perspective 2001 was prepared. The Slovak Spatial Development Perspective[1], in accordance with valid law, specifically enacts regulations for:

- The arrangement and hierarchy of settlement structure, the center of the settlement and economic agglomerations within the international and national interconnections regarding of the territory of the Slovak Republic,
- The development of the main urbanization axes in the territory of the Slovak Republic,
- The coordination principles of spatial development for the creation of equal living conditions in the whole territory of the Slovak Republic as well as territorial preconditions for the improvement of the environment, the provision for ecological stability, the preservation of cultural and historical heritage, and for sustainable development.

1 *§9 of Act No. 50/1976 Coll. on territorial planning and building code (Building Act), as amended.*

3 Background

3.1 International context

From the spatial point of view, the Slovak Spatial Development Perspective takes full account of and respects the principles of sustainable development and spatial cohesion, as they result from membership of the Slovak Republic in the European Union and other international organizations and from international contracts and agreements concerning the spatial development.

The economic and social cohesion aimed to reduction of imbalanced development of regions is according to the EU Treaty one of the basic objectives of EU. One of objectives of the cohesion policy is the European spatial cooperation which is also supported by objectives defined in the Slovak Spatial Development Perspective.

The recommendations of the Slovak Spatial Development Perspective are fully comparable with recommendations of the European spatial conceptions, Guiding principles for sustainable spatial development principles of the European continent of the European Conference of Ministers responsible for territorial planning and regional policy (CEMAT), confirmed by the Committee of Ministers of the Council of Europe and the Territorial Agenda of the European Union. It takes into account objectives of main European documents and creatively applies them to the Slovak conditions.

Recommendations of the Slovak Spatial Development Perspective are based on results of the European research projects (e.g. ESPON, PlaNet CenSE, VISION PLANET, European Perspective of Spatial Development and others). In general, we can say that the basic principles of spatial development of the European countries reflected in these projects are included in the following basic principles that are defined in the European Spatial Development Perspective adopted by the European ministers responsible for spatial development:

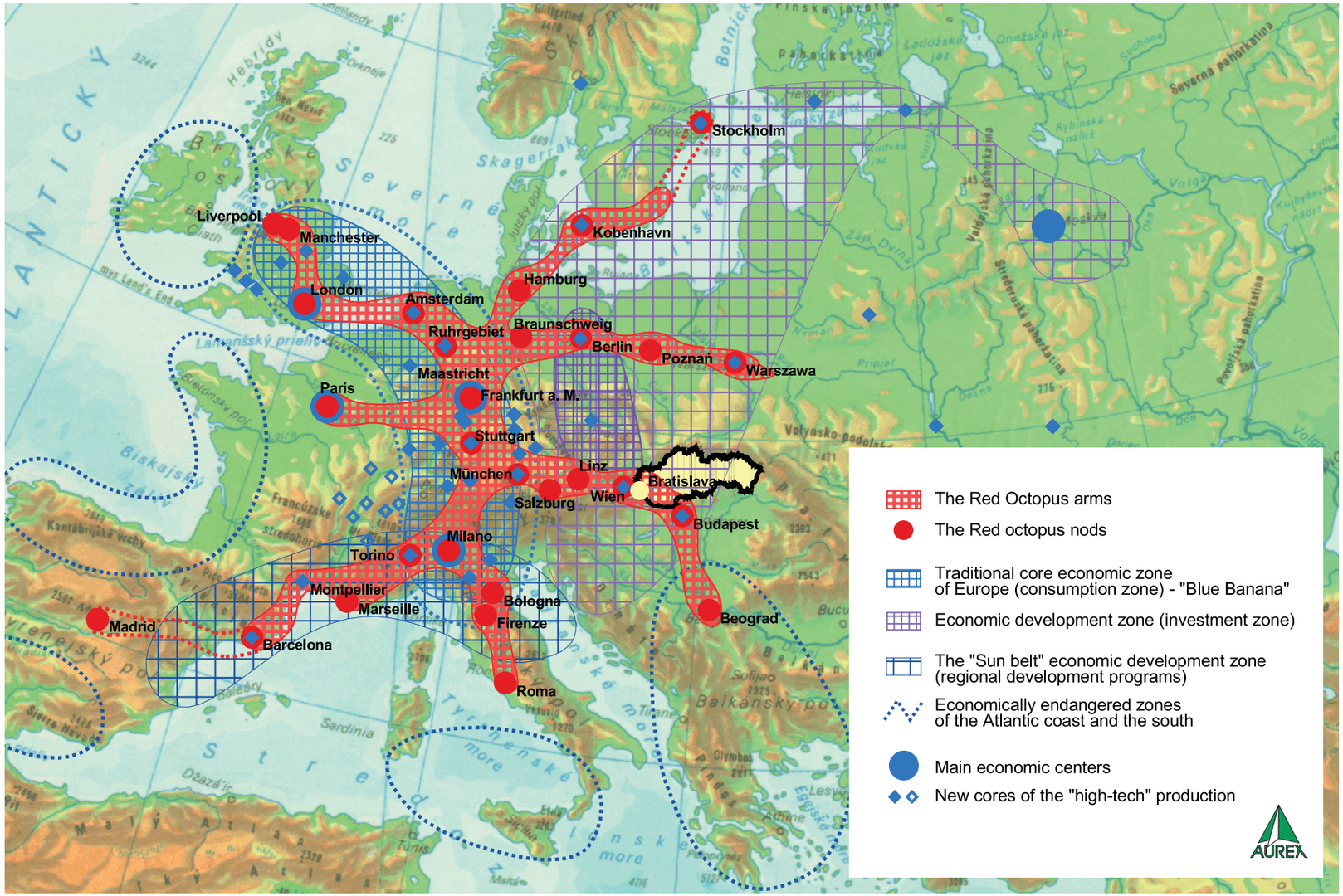
- Development of a balanced and polycentric system of towns and new relations between urban and rural areas,
- Provision for equal access to infrastructure and knowledge, and
- Sustainable development, rational management and protection of natural and cultural heritage.

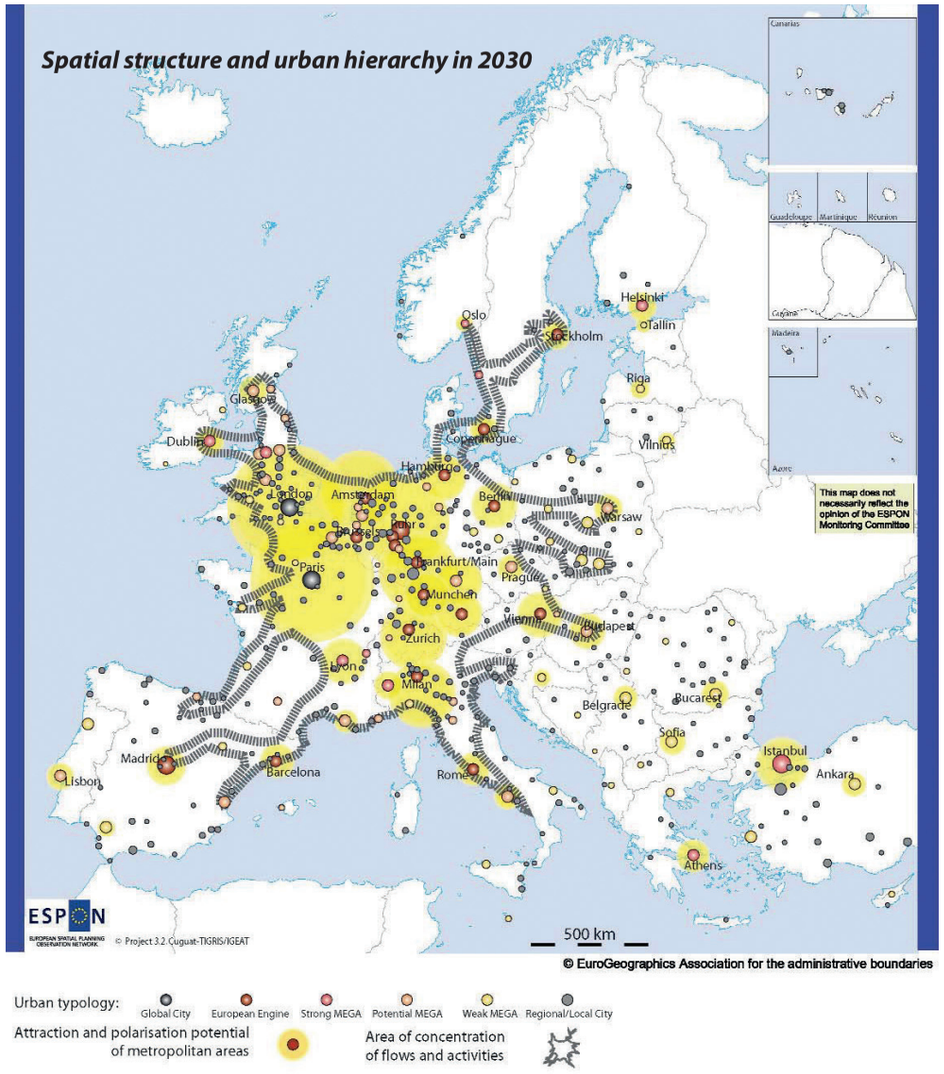
The objectives of the Slovak Spatial Development Perspective pursue the implementation of the principles, conclusions and recommendations included in the European basic documents on cohesion policy of the EU Member States. The main principle of the EU cohesion policy is financial solidarity in favor of underdeveloped regions and disadvantaged social groups. It helps to preserve the regional competitiveness and significantly contributes to the convergence of poor regions to the developed ones.

The four challenges of the cohesion policy for the years 2007-2013 are:

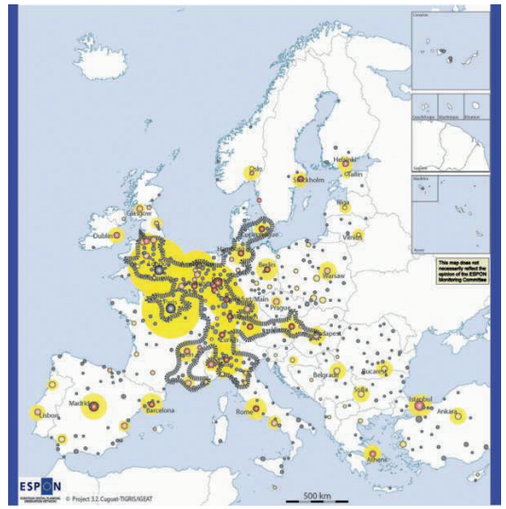
1. Achievement of a higher degree of cohesion in the enlarged European Union
2. Strengthening of EU priorities
3. Increasing the quality for promotion of sustainable and balanced development
4. Establishment of new partnerships for cohesion.

The Red Octopus development concept

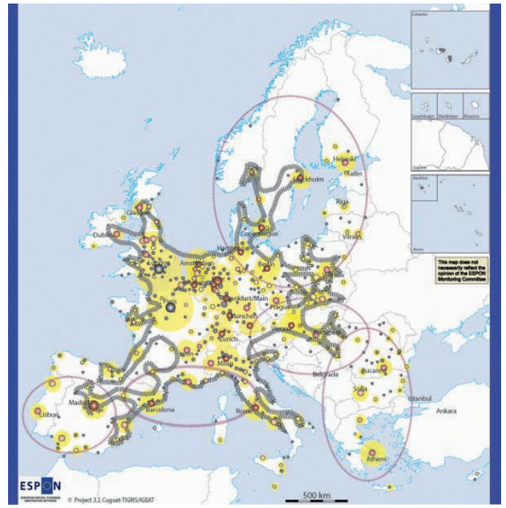




Trend Scenario



Competitiveness-oriented Scenario



Cohesion-oriented Scenario

Images taken from publication: Scenarios on the territorial future of Europe a Territorial futures, Spatial scenarios for Europe, ESPON Project 3.2

The Lisbon Treaty first mentions the territorial (spatial) cohesion as one of basic objectives of the European Union.

Within the objective of European territorial (spatial) cooperation the following should be strengthened:

a) Cross-border cooperation through joint local and regional initiatives
b) Transnational cooperation aimed to integrated spatial development
c) Interregional cooperation and exchange of experiences.

Moreover, the Slovak Spatial Development Perspective promptly reacts to common issues of cross-border relations within the Visegrad countries (e.g. Common spatial development document of the V4+2 countries, conclusions of meetings of ministers responsible for spatial development of the Visegrad countries). The purpose of these documents is particularly to harmonize main development and communication axes between neighboring Visegrad countries that were joined by Romania and Bulgaria in this area.

An important document of the European Community in the area of spatial development, whose basic principles are comprised in the Slovak Spatial Development Perspective, is the Territorial Agenda of the European Union from the year 2007. It was revised and adopted in 2011 under the name Territorial Agenda 2020. Main priorities of Territorial Agenda 2020 are:

- Polycentric and balanced development
- Integrated development of towns, rural and specific regions
- Spatial integration, cross-border cooperation and functional cross-border regions,
- Global competitiveness based on local economies
- Spatial interconnectivity
- Interconnection of environmental, natural and cultural values.

3.2 Demographic starting points

The development of population dynamics in the years 1991, 2001 and 2008 in the individual regions of the Slovak Republic was differentiated.

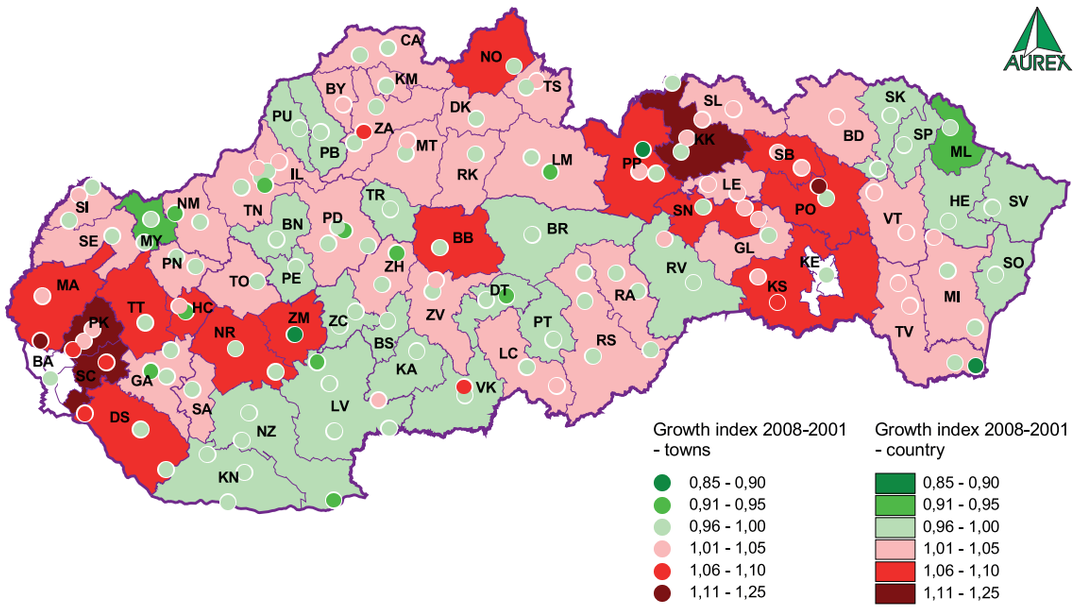
The population of regions of the Slovak Republic in 1991, 2001 and 2008

Territory	Number of inhabitants			Increase (decrease)		Growth index	
	1991 (3.3., SĽDB)	2001 (26.5., SODB)	2008 (31.12.)	1991 - 2001	2001 - 2008	2001 / 1991	2008 / 2001
Bratislava region	606 351	599 015	616 578	-7 336	17 563	98,79	102,93
Trnava region	541 992	551 003	559 934	9 011	8 931	101,66	101,62
Trenčín region	600 575	605 582	599 859	5 007	-5 723	100,83	99,05
Nitra region	716 846	713 422	706 375	-3 424	-7 047	99,52	99,01
Žilina region	668 771	692 332	696 347	23 561	4 015	103,52	100,58
Banská Bystrica region	659 320	662 121	653 697	2 801	-8 424	100,42	98,73
Prešov region	739 264	789 968	803 955	50 704	13 987	106,86	101,77
Košice region	741 216	766 012	775 509	24 796	9 497	103,35	101,24
Slovak Republic	**5 274 335**	**5 379 455**	**5 412 254**	**105 120**	**32 799**	**101,99**	**100,61**

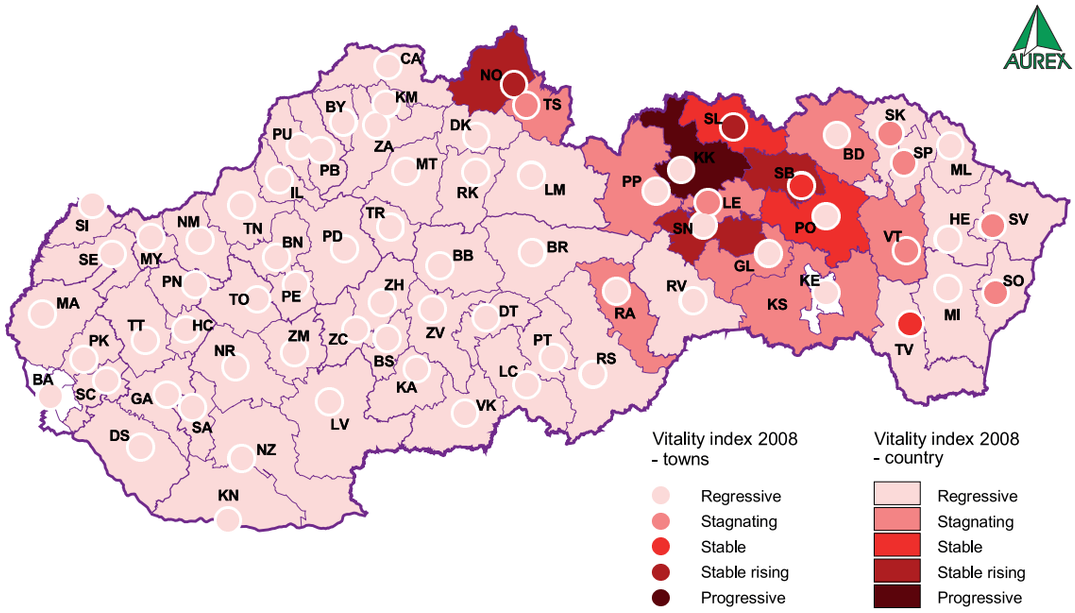
Source: SĽDB 1991, SODB 2001, Statistical Office of the Slovak Republic, year 2008 – Statistical Office of the Slovak Republic

The steady deterioration of reproduction characteristics, i. e. long-term decrease in the number of live-born children, and changes in the mortality rate cause changes in the age structure of population. The number of children aged below 15 years is decreasing and the number of persons at post-productive age is increasing. The number of persons at productive age grows, too.

Population growth index of urban and rural settlements 2008/2001



Vitality index of population of urban and rural settlement 2008 – EU methodology



The structure of population of the Slovak Republic by basic age groups (abs., rel.)

Age	3.3. 1991 (SĽDB)		26.5. 2001 (SODB)		31.12. 2008	
Pre-productive	1 313 961	24,9	1 015 493	18,9	836 069	15,4
Productive	3 046 154	57,8	3 349 231	62,2	3 459 211	63,9
Post-productive	914 220	17,3	1 014 731	18,9	1 116 974	20,7

Source: Statistical lexicone of communities of the Slovak Republic 1992, SUDB 2UÚ1, Statistical Office of the Slovak Republic, year 2008 - Statistical Office of the Slovak Republic

Note: pre-productive age - 0 – 14 years
productive age - 15 – 59 years men, 15 - 54 years women
post-productive age - 60+ years men, 55+ years women

The limits of main age groups in the most recent statistics change, because prolonged productive age and later retirement are taken into account. The statistics specify the following age groups:

- Pre-productive age - 0 - 14 years
- Productive age - 15 - 64 years
- Post-productive age - 65 and more years.

The following table shows the age structure of population of Slovakia in 2008 according to this EU methodology.

The age structure of population of the Slovak Republic by economic age groups in 2008 (EU methodology)

Age	stav k 31.12. 2008	
Pre-productive	836 069	15,4
Productive	3 921 880	72,5
Post-productive	654 305	12,1

Source: Statistical Office of the Slovak Republic, 2009

The Statistical Office of the Slovak Republic in cooperation with the Demographic Research Center of INFOSTAT developed demographic projections until 2025 for the Slovak Republic – "Demographic projection until 2025 for the Slovak Republic". The demographic projections for the Slovak Republic were developed in three variants (low-growth, medium-growth and high-growth variants) that differ in the anticipated development of reproduction indicators and migration.

As regards the age structure, the whole projection period will be characterized by ageing of the population. The relevant part of economically active population aged of 15-64 years will change in the forecast period as well - its share in all three variants gradually declines due to the gradual progress of the baby-boomers towards the post-productive age.

The most probable medium-growth variant envisages that Slovakia will have approximately 5,199 millions of inhabitants by the year 2025, which represents a decline of 213 thousands as compared to the present population of SR (as of 31.12. 2008 - 5,412 millions of inhabitants). The population of Slovakia should achieve approximately 5,096 million in 2015 based on the low-growth variant and 5,335 million based on the high-growth variant.

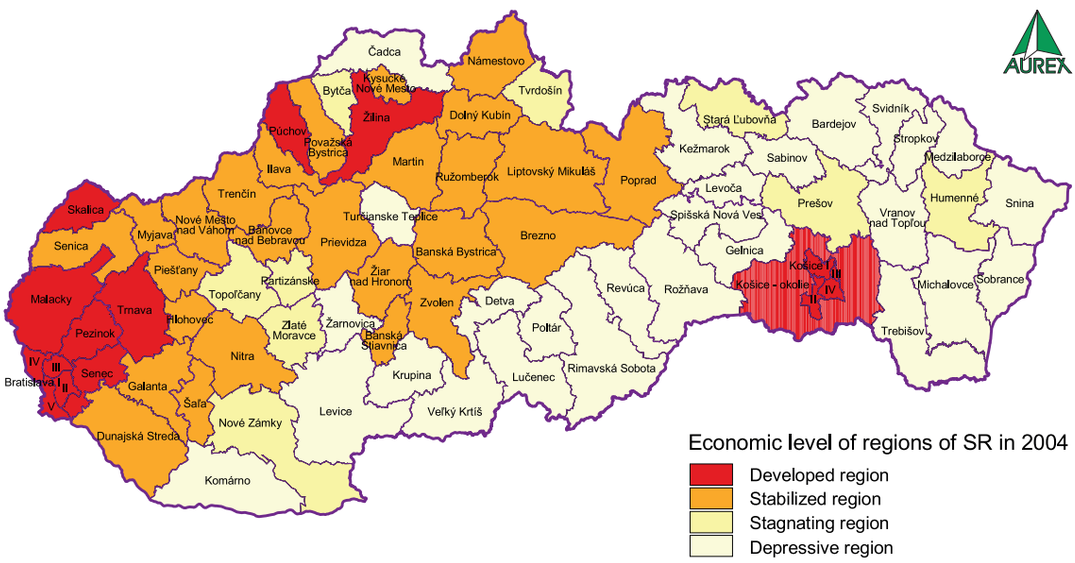
3.3 Regional disparities and regional policy

From the viewpoint of regional projection of the structural policy it is important that the Slovak Republic has a developed polycentric system of settlements, many of which have created conditions for the regional competitiveness in the transformation process. Moreover, the average measurement of backwardness of the Slovak Republic through GDP per capita in PPP hides the fact that growth centers are situated in less developed regions as well (it holds e.g. for seven regional towns and other developed centers of development).

Main regional problems of economy of the Slovak Republic that must be solved are:

- Economic and social problems of development in the west-east direction, persistent v inter-regional and intra-regional disparities, problems of rural development
- Regions with high concentration of foreign investors characterized by isolated development of foreign and domestic companies
- Innovation backwardness of regions, insufficient support to quality research, low creativity of labor force, weak support to the whole innovation cycle
- Unclear strategy of development of individual regions often caused by the lack of finance for implementation of strategic aims and priorities comprised in programs of economic and social development of self-governing regions
- Fragmented support to regions and to a wide range of unrelated activities
- Spatial concentration of marginalized groups
- Better interconnection between sector policies and the regional policy.

Economic level of regions of SR in 2004



We can summarize that under the conditions of liberalized market undertakings tend to allocate their investments to economically developed regions (and regional centers or other innovation poles in other regions). The process of polarization of two groups of regions improves and strengthens the position of developed regions on the one hand, but reduces the adaptability of the other regions to the requirements of economic and social transformation and new development conditions on the other hand. This is also caused by the different starting positions of the individual regions of the Slovak Republic. These tendencies may continue in the following period, because under more liberal market conditions the low competitiveness (attractiveness) of regions, which already lag behind, will more significantly affect the economy of Slovakia more significantly. It is also caused by their lower adaptability due to the long-term accumulation of economic and social problems, quality of human resources, lower infrastructure, degree of connection to communication and information systems, etc.

One of important conditions of the elimination of regional disparities is the development of the innovation potential of individual regions. The development of the innovation potential can be achieved through the implementation of endogenous development, coordination of business activities, creation of new industrial employment using qualified labor force, establishment of corresponding relations between public administration, universities, research and development institutions, institutions supporting business environment and so on. It actually means the improvement of the structure of the regional economy, growth of the competitiveness of small and medium enterprises, promotion of innovation, foundation of new enterprises, attraction of new actors to the regions, development of human resources and modernization of infrastructure.

3.4 Environmental policy

The Slovak Spatial Development Perspective puts strong emphasis on the application and implementation of the principles of permanently sustainable development and on the enforcement of the state environmental policy. Territorial planning is the basic instrument of the state environmental policy for optimization of spatial structures. Basic documents that support the implementation of the state environmental policy and that are used in the area of spatial development include among others:

- Strategies, Principles and Priorities of the State Environmental Policy
- National Environmental Action Program of the Slovak Republic II
- Conception of Applying Agenda 21 and the Evaluation of the Indicators of Sustainable Development in the Slovak Republic
- National Strategy of Sustainable Development of the Slovak Republic,
- National Strategy of Biodiversity Protection in Slovakia
- European Convention on Landscape
- National Forest Management Program of the Slovak Republic
- Water Plan of Slovakia.

4 Objectives of the Slovak Republic's spatial development policy

The main objectives of the Slovak Spatial Development Perspective are those which, from the viewpoint of tools of the territorial planning policy, can contribute as much as spossible to the development of the economic and social societal spheres in accordance with the requirements for sustainable development. This requires the creation of such settlement and spatial conditions for the development of the society that will support the development and use of existing regional features and will lead to the reduction of existing undesirable disparities between individual regions.

The Slovak Spatial Development Perspective draws upon and applies in its objectives the basic outputs and objectives of individual departments´ conceptions as approved by the government of the Slovak Republic. These conceptions mostly express short-term and mid-term development horizons and therefore they form a basis for the long-term objectives of the Slovak Spatial Development Perspective.

Within the context of basic objectives of the other European countries, the basic objectives for the present territorial planning policy can be defined as follows:

- Promotion of the development of the economic basis and the strengthening of its competitiveness and effectiveness
- Promotion of balanced settlement development, including the rural development
- Provision of equivalent access to infrastructure
- Protection and creation of environmental, natural and cultural heritage
- Promotion of integration and cohesion
- Provision of sustainable development.

These objectives must be developed further in a creative way within territorial plans lower in the hierarchy as well as in other space planning documents.

Provision of the competitiveness of individual territorial units at the national and international level is one of the important objectives of society at large. In order to provide for the objective, along with the provision of equal social and economic conditions from the territorial planning point of view, it will be necessary to implement in each spatial unit, in addition to the economic requirements, the conceptions for development of:

- urban structures
- network settlement structures[2],
- protection and creation of landscape and overall environment,
- participation in cross-border and international cooperation

2 *Network settlement structures mean various purpose and spatial connections among settlement units based on the principles of cooperation in the interest of enhancement of the development potential and possibilities.*

5 Changes in spatial development

Although the settlement had developed continuously for decades (millennium) and constitutes a stable territorial system with long-term innovation cycles, the socio-economic changes had significant consequences on the whole settlement system during the relatively short period of the last 40 years of the 20th century.

In the period after the World War II the settlement of Slovakia was characterized by fast industrialization and urbanization. In accordance with the principles of the system of settlement centers mid-sized towns (20 to 50 thousand inhabitants) were created, which are evenly spread over the whole territory of Slovakia. The development of larger towns with more than 50 thousand inhabitants, including supra-regional tertiary service centers, was supported. Only two towns with more than 100 thousand inhabitants were formed - Bratislava as the capital town of the Slovak Republic and Košice. The whole period of development of settlement in Slovakia under the socialist regime is marked by concentrated growth of the individual towns, basically to the detriment of other rural communities.

In the last decade of the twentieth century dramatic changes occurred in the development of society that very quickly affected the development of settlement of Slovakia. These changes are reflected in the development and construction of the individual communities and in their mutual relations. The growth of towns with more than 20 000 inhabitants was minimized, the decline in communities with 10 000 to 20 000 inhabitants observed in the 1980s stopped and groups of communities with 500 to 5 000 and 5 000 to 10 000 inhabitants started to slightly grow.

In the previous period towns with more than 50 000 inhabitants as settlement centers were growing most quickly. These towns were most marked by the polarization and agglomerization effects.

After the year 1991 the increase in population in centers and their hinterland changed most significantly. The centers registered a fast decline in the increase of population; in some centers it achieved a negative value. On the contrary, in the hinterland of these centers the increase in population started to grow after the year 1991. In the period after the year 2000 the settlement of Slovakia has been characterized by strong sub-urbanization tendencies around the largest towns. They are most marked in the environs of Bratislava and Košice, but can be observed in all towns with more than 50 000 inhabitants.

6 Development of settlement structure of the Slovak Republic

The perspective of development of settlement system of the Slovak Republic as a whole is based on two basic premises:

- The establishment of interconnections with the European settlement network and
- The creation of suitable conditions for sustainable development of the society.

The conception of interconnections with the European settlement network not only draws upon the acceptance of the present European conceptions of the development of settlement networks, or the conceptions of neighboring countries, but is also draws upon its own vision of how to incorporate and use the settlement structure of Slovakia within the Central European and Europe-wide spatial framework in the interest of the competitiveness of the Slovak Republic, its regions and towns, along international dimensions.

The conception of creating permanently sustainable development in the Slovak Republic is focused on the establishment of such a settlement structure that will create preconditions for equal conditions in accordance with the requirements for functional comprehensiveness of all regional units. Simultaneously, the emphasis is put on the optimization of their mutual interconnections and their interconnection with international settlement structures, while respecting their specific features and making use of their internal potential.

6.1 International links

In addition to the economic preconditions for social development and the tendencies of ongoing globalization, which significantly influence or interconnect with the spatial development, the following settlement development factors will have paramount importance for the future creation of a settlement structure in the Slovak Republic:

- geomorphologic and location features, of both wider and internal territories of the Slovak Republic,
- settlement-spatial features of the surrounding territories
- possibilities to establish cross-border settlement systems
- existing and projected European transportation links running through the territory of the Slovak Republic.

Geomorphologic features of the surrounding European territories and the territory of Slovakia offer certain unique advantages, but they also create barriers. The territory of Slovakia is situated within the borders of two mountainous European massifs - the Alps and the Carpathians – accompanied by the Danube, a river of European importance. Most of the Slovak territory is formed by mountains with rich and specific cultural-historical traditions and potential for recreation. However, the mountainous character of the country is also a disadvantage, especially from the viewpoint of international and national transportation-communication links.

Location factors of Slovakia arise from its central position in Central Europe and several of its neighboring countries. Despite its geomorphologic features, Slovakia should make as much

use as possible of its location as an attractive, connecting and developing space between the present EU member countries and other countries.

The settlement-spatial features of the surrounding territory, which can positively influence the development of settlement structures of Slovakia, specifically include:

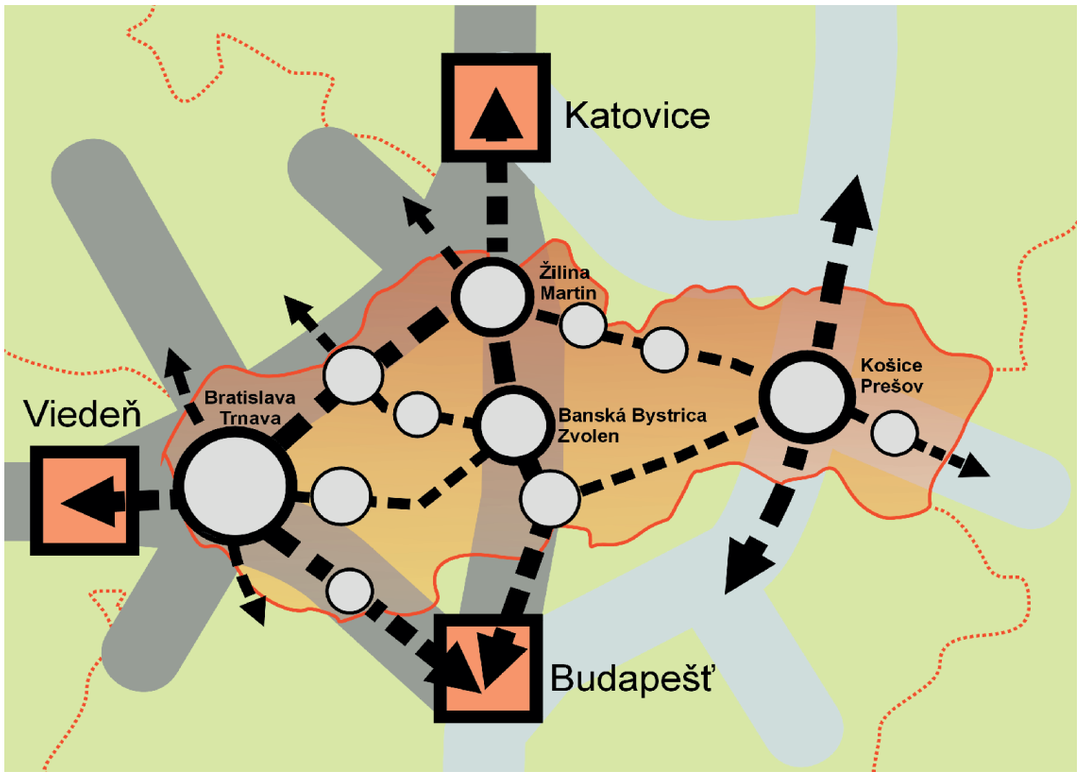
- an emerging and prospectively highly preferred European urbanization axis that basically runs along the Danube river in the direction from Stuttgart - Ulm - Munich - Linz/Salzburg - Vienna/Bratislava - Budapest – Belgrade,
- the existence of a high concentration of the population and other activities in agglomerations of European importance such as the Vienna agglomeration, the Budapest agglomeration and the Katowice settlement agglomeration (or the Katowice - Ostrava agglomeration);
- the north-south settlement belt of municipal regions and agglomeration in Moravia along the western state borders of Slovakia in the direction from Katowice - Ostrava - Přerov - Olomouc - Zlín - Brno - Břeclav – Vienna,
- the dominance of the Košice - Prešov agglomeration in the "Carpathian Region", in the south-east part of Poland and in the eastern part of Hungary and Carpathian Ukraine.

In addition to these dominant international settlement conditions, the border settlement locations and areas, which will have the best preconditions for cross-border cooperation in the future, will be important for further development of settlement and settlement structures of Slovakia.

Communication features of the existing and projected European transportation network will influence the future development of settlement structures in Slovakia, especially in the corridors that were approved at the international level as multimodal corridors or supplementary routes of European importance, which run through the territory of Slovakia or are situated in its close proximity. They will influence the development of the border regions of Slovakia. These links include the following corridors:

- Corridors of the European multimodal network TEN-T that are situated outside the territory of Slovakia, but in its close proximity, with potential effects on the development of border regions of Slovakia:
  1. Multimodal corridor III: Berlin - Wroclaw - Krakow - Lviv - Kiev
  2. Multimodal corridor V: Trieste - Ljubljana - Budapest - Uzhgorod - Lviv
- Corridors of the European multimodal network TEN-T touching or crossing the territory of Slovakia:
  3. Multimodal corridor VII: the Danube river
  4. Multimodal corridor VI: Gdansk - Poznan/Lodz - Žilina,
  5. Multimodal corridor V, branch Va: Bratislava - Žilina - Košice - Uzhgorod,
  6. Multimodal corridor IV: Berlin/Nuremberg - Prague - Bratislava - Budapest - Istanbul.

International issues of the settlement core areas of the Slovak Republic



The following are links of European importance, which Slovakia should promote and support in the interest of its own development:

- the north-south link through eastern Slovakia from the Nordic and Baltic states to the Balkans (Corridor Via Carpatia),
- The link from the region Považie through Hungary to the Trieste and Rjeka ports or to Slovenia and Croatia
- the west-east link of the southern part of Slovakia representing a diagonal link through Europe (from the south-west Europe to the north-east Europe)
- the west-east link as a central axis that connects the existing TEN-T corridors in the direction from Nuremberg/Dresden - Prague - Olomouc - Púchov - Žilina - Košice – state border with Ukraine.

6.2 Settlement systems of the Slovak Republic

The settlement systems in the Slovak Republic are represented by networks of settlement core areas, development axes, settlement centers and other regional and local networks of municipal and rural settlements. Togetheer they make up the settlement structure of Slovakia.

Recommendations for the establishment of an optimal settlement structure should take into account many factors and mutual interconnections. These are:

- international agreements of various departmental systems
- conceptions and principles of spatial development in wider international connections
- national departmental conceptions
- development principles that have been adopted so far and can be developed further,
- taking into account the economic, social and cultural-historical conditions of concrete regional units.

7 Settlement

7.1 Settlement as cultural heritage

The present settlement structure of the Slovak Republic reflects the origin and development of a settlement system that is based on the fundamental settlement structure from previous historical period, in particular the 12th - 14th centuries. The number and character of settlements are documented by historical and statistical data, especially from the 16th - 18th centuries in connection with archaeological findings.

In 1873 there were 3 646 settlements in the territory of the present Slovak Republic, with 25 free royal towns, 192 towns and small towns, and 3 394 villages and settlements. This settlement structure is considered decisive, because it was this settlement structure that closed the basic definition of settlement structure of Slovakia in connection to their importance as:

- historical and current (modern) centers
- district - region
- magistrate - district
- settlements with relevant cadastres that have been cartographically monitored since the 18th - 19th century, with precise definitions and markings of their construction fund, in connection to its property – legal relations.

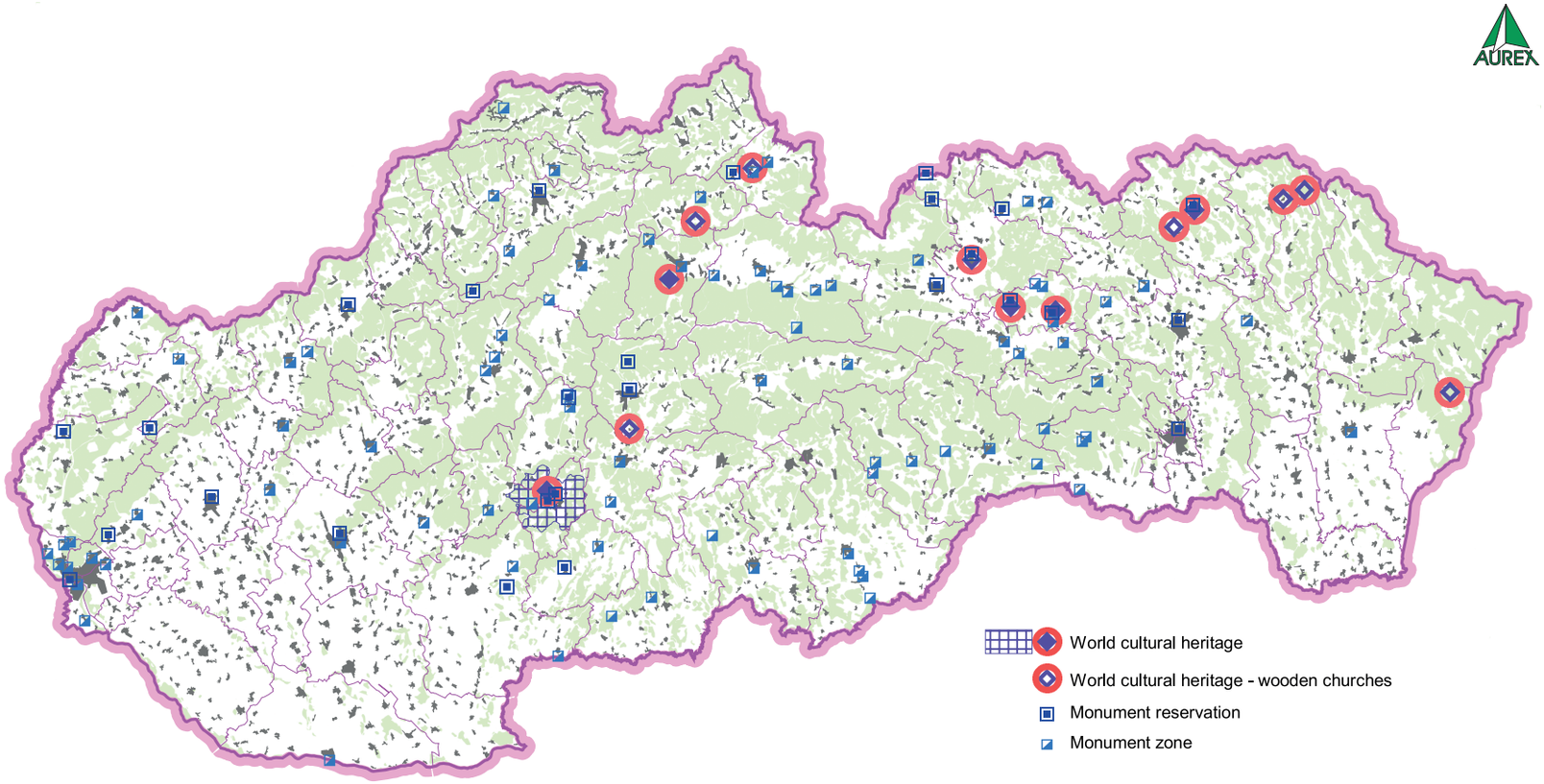
In addition to the socio-economic and other values and relations, the basic settlement structure is also a bearer of cultural-historical values and influence, created by the previous generations, irrespective of the time and place of their origin. Almost in every settlement we can find a material part of the cultural heritage – a historical construction fund or other traces of historical structures preserved above ground and especially below ground.

The importance of cultural heritage in the individual regions is classified as follows:

Cultural heritage with national and international importance:

- Bratislava, the capital of the Slovak Republic
- locations included in the List of World Natural and Cultural Heritage of UNESCO - Banská Štiavnica and technical monuments in the surroundings, the Spišský Castle and adjacent monuments and historical core of Levoča with the work of the Master Paul, folk architecture reservation Vlkolínec, historical core of Bardejov and the Jewish suburb, wooden churches in the Slovak part of the Carpathian Arc
- locations selected for inclusion in the List of World Natural and Cultural Heritage (Tentative List) - Limes Romanus (ancient Roman monuments on the central Danube), system of fortresses on the confluent of Danube and Váh in Komárno - Komárom, Chatam Sofer Monument in Bratislava, Tokai wine-growing area (group of wine cellars), Conception of the lenticular historical center of Košice, churches in the regions of Gemer and Abov with medieval wall paintings, monuments of Great Moravia (on the Slovak side the Church of St Margaret of Antioch in Kopčany).

Monument zones and world cultural heritage



Cultural heritage with supra-regional and national importance:

- towns and communities with monument reservations or important national cultural monuments and their protection zones, including important archaeological sites and archaeological findings in connection with the collection funds of museums and galleries,
- territories of the communities Zlatá Baňa and Červenica (the Prešov district) with historical opal mines as one of the three world deposits of expensive opal in the world, and Medzilaborce with the unique Andy Warhol Gallery. These locations have paramount cultural and historical importance for Slovakia that still has not been sufficiently specified, properly identified and applied with subsequent comprehensive use in national economy, in particular for the development of tourism.

Cultural heritage with regional importance:

- towns and communities with monument zones and other national cultural monuments and their protection zones, including important archaeological sites and archaeological findings in connection with collection funds of museums and galleries.

Within the framework of the spatial development of Slovakia, the material part of the cultural heritage is represented by historical urban, architectonic, and construction structures in connection with historical landscape structures with various levels of cultural-historical potential.

The material part of the cultural heritage of the Slovak Republic is specified and spatially identified in the territory as follows:

- Cultural - historic structures protected under the Act[3] This selection of important cultural - historical values accounts only for 40 - 50% of the cultural heritage,
- Other cultural - historical structures according to the Convention on the Protection of the World Cultural and Natural Heritage (Communication No. 159/1991 Coll.), European Convention on the Protection of the Archaeological Heritage (revised – Communication No. 344/2001 Coll.) and the Convention on the Protection of the Architectural Heritage of Europe (Communication No. 369/2001 Coll.) in conjunction with the Resolution of the National Council of the Slovak Republic No. 91/2001 to the Declaration of the National Council of the Slovak Republic on the protection of cultural heritage:
  - historical cores of towns and communities, including important parts outside the construction lots inside the build-up part of community – calvary areas, cemeteries, castles and others
  - scattered settlement - settlements, hillside settlements, back country settlements, farmsteads
  - supplementary and seasonal parts of settlement – hay-barns, sheds, barns

3 *Act No. 49/2002 Coll. on the protection of monuments, as amended:*

- *Protected territories – monument reservations, monument zones and protected areas, protected groups and solitaires of national cultural monuments*
- *Immovable monuments: urban and architectonic monuments, folk architecture monuments, archaeological discovery sites and findings, technical monuments (products, transportation, technical solution, and science), paintings, monuments of historical verdure, historical monuments and movable cultural monuments that are usually incorporated in immovable cultural monuments*

- specific parts of settlements – technical works and traces of historical manufacturing and transportation activities (mining, metallurgy, railways, etc.), natural and artificial parts (levees, dams, reservoirs, alleys, etc.),
- parts complementing the historical environment – columns, groups of statues and other minor architecture (roadside statues and chapels, fountains, lights, wells, etc.)
- archaeological cultural heritage as an integral part of cultural heritage, i.e. archaeological discovery sites and findings usually situated below ground and discovered by means of archaeological research,
- cultural country, evaluated according to internationally valid criteria, which represents the adjacent surroundings of cultural monuments and other historical construction fund.

The basic objective of spatial development of the Slovak Republic regarding the preservation of cultural heritage is to permanently and carefully take care of cultural heritage and monuments and to improve its construction-technical condition by means of regular maintenance, renovation and restoration.

The development plans in the territory should focus on:

1. settlements with immovable national cultural monuments that are in unsuitable, desolate and damaged structural-technical condition and with monument objects and groups that include movable monuments in unsuitable, desolate and damaged condition
2. settlements with unused funds of immovable national cultural monuments that are offered for sale or lease by their owners
3. settlements with immovable cultural monuments, for which restoration has been stagnating for a long time and lasting more than 5 years.

8 Settlement centers

In the Slovak Spatial Development Perspective, the settlement centers were evaluated on the basis of tertiary services provided in these centers. Tertiary centers were evaluated on the basis of existence of the following facilities with supra-municipal to supra-regional character of the individual categories of public utilities: education (secondary vocational schools, high schools, conservatoire, colleges and universities, detached workplaces of colleges and universities), health care (clinics, general hospitals, specialized hospitals, sanatoriums, natural spas, balneotherapy), social affairs (facilities providing social services for children and adults, senior homes, children´s homes and specialized facilities – nursing homes), culture (professional theatres, museums, registered galleries, astronomical facilities, scientific libraries), executors, notaries, auditors (offices of executors, notaries and auditors), courts (regional court, district court), district authorities (district authority in the region, seat of the district authority, district offices outside of settlements), insurance companies, banks (commercial insurance companies, commercial banks, branches of foreign banks).

8.1 Settlement centers as tertiary centers

In the previous period the distribution of the facilities of social (and also other) infrastructure was governed by the system of settlement centers. This principle created a system of centers that are relatively evenly distributed throughout the Slovak Republic. Their local effectiveness can basically meet the needs of the population, including those living in their hinterland, in the present as well.

Based on the evaluation of the individual groups of facilities, there are community groups that indicate a level of service provided for the town as well as for its hinterland.

Bratislava, classified outside all groups of centers, is definitely a special center of paramount importance under the conditions of the Slovak Republic. This is because Bratislava is the capital town of Slovakia, and also because of its historical development, where the most important educational, research, health-care, financial, cultural and other service facilities of national and international importance were concentrated within its territory.

Košice, the second most important center, has also an important position in the settlement of the Slovak Republic. This center has also been included outside the following groups of centers with dominant international status.

The other evaluated centers have been divided into five groups at the national level:

The **first group** includes communities that are divided into two sub-groups.

- The first sub-group contains the six biggest towns that also fulfill the function of regional towns. They also fulfilled this function in the period of reorganization of the state administration in 1960s. This group includes the following towns with international and national importance:
  - Banská Bystrica
  - Nitra
  - Prešov
  - Žilina
  - Trenčín
  - Trnava
- The second sub-group contains towns with 40,000 to 70,000 inhabitants. It also includes among which are also the biggest district towns of these days. These towns can be described as centers of national importance. These are:
  - Martin
  - Poprad
  - Nové Zámky
  - Zvolen
- The two-town areas of Prievidza-Bojnice and Martin-Vrútky can also be included among these centers as common centers. They supplement each other with their specific social facilities.

The **second group** contains communities that are also divided into two sub-groups as follows:

- The first sub-group consists of towns, all of which are seats of the present districts and have 25,000 to 50,000 inhabitants. These towns have basically supra-regional to national importance and are often supported by specific functions of international importance:
  - Bardejov
  - Čadca
  - Dunajská Streda
  - Humenné
  - Komárno
  - Levice
  - Liptovský Mikuláš
  - Lučenec
  - Michalovce
  - Považská Bystrica
  - Piešťany
  - Prievidza
  - Spišská Nová Ves
  - Topoľčany
  - Trebišov
  - Rimavská Sobota
  - Ružomberok
- The second sub-group also consists of communities that are seats of the existing districts and have 20,000 to 30,000 inhabitants. These basically are the towns of supra-regional importance:
  - Brezno
  - Dolný Kubín
  - Galanta
  - Kežmarok
  - Nové Mesto nad Váhom
  - Pezinok
  - Púchov
  - Rožňava
  - Senica
  - Vranov nad Topľou
  - Žiar nad Hronom

The **third group** contains towns divided into two sub-groups:

- The first sub-group consists of towns that are seats of the present districts (with the exception of Dubnica nad Váhom and Nová Dubnica) and can be described as centers of regional to supra-regional importance with 12,000 to 25,000 inhabitants:
  - Bánovce nad Bebravou
  - Banská Štiavnica
  - Detva
  - Dubnica nad Váhom
  - Dubnica nad Váhom + Nová Dubnica
  - Hlohovec
  - Hlohovec+Leopoldov
  - Kysucké Nové Mesto
  - Levoča
  - Malacky
  - Myjava
  - Partizánske
  - Senec
  - Skalica
  - Snina
  - Stará Ľubovňa
  - Svidník
  - Šaľa
  - Veľký Krtíš+Modrý Kameň
- In the second sub-group we can already see some specific conditions of individual towns, which is subsequently obvious in the other groups. About 40% of the communities are presently district towns. The towns in this sub-group can be regarded as towns of regional importance and some of them fulfill the functions of national or international importance arising from their specific features. These towns are:
  - Bojnice
  - Bytča
  - Fiľakovo
  - Gelnica
  - Handlová
  - Hnúšťa
  - Holíč
  - Ilava
  - Kolárovo
  - Kráľovský Chlmec
  - Kremnica
  - Krupina
  - Liptovský Hrádok
  - Medzilaborce
  - Modra
  - Moldava nad Bodvou
  - Námestovo
  - Nová Baňa
  - Rajec
  - Revúca
  - Sabinov
  - Sečovce
  - Sereď
  - Stropkov
  - Svit
  - Šahy
  - Šamorín
  - Štúrovo
  - Šurany
  - Trstená
  - Turčianske Teplice
  - Tvrdošín
  - Veľký Krtíš
  - Veľký Meder
  - Vráble
  - Vysoké Tatry
  - Zlaté Moravce

The **fourth group** contains the following communities that basically fulfill the function of regional importance:

- Dobšiná
- Dudince
- Giraltovce
- Hriňová
- Hurbanovo
- Krompachy
- Lipany
- Nová Dubnica
- Poltár
- Rajecké Teplice
- Sobrance
- Spišská Belá
- Spišské Podhradie
- Stará Turá
- Stupava
- Tisovec
- Tornaľa
- Trenčianske Teplice
- Turzovka
- Veľké Kapušany
- Vrútky
- Žarnovica
- Želiezovce

The **fifth group** includes the following communities that basically fulfill the function of sub-regional importance:

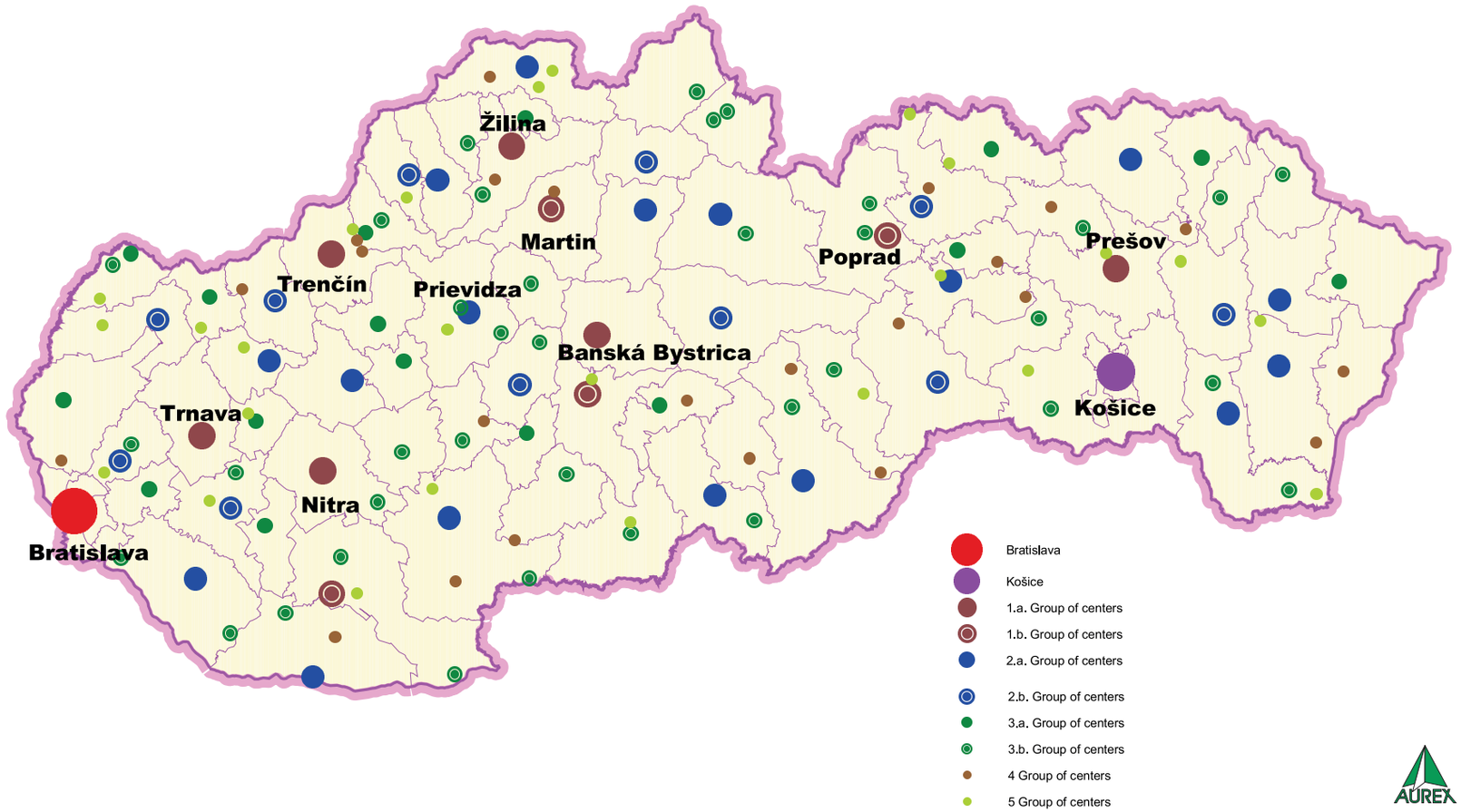
- Beluša
- Brezová pod Bradlom
- Čierna nad Tisou
- Dvory nad Žitavou
- Gbely
- Hanušovce nad Topľou
- Jelšava
- Krásno nad Kysucou
- Leopoldov
- Medzev
- Modrý Kameň
- Nemšová
- Nováky
- Oščadnica
- Podolínec
- Sládkovičovo
- Sliač
- Smižny
- Spišská Stará Ves
- Strážske
- Svätý Jur
- Šaštín – Stráže
- Tlmače
- Veľký Šariš
- Vrbové

The fourth and the fifth groups contain communities with less than 12,000 inhabitants.

8.2 Settlement centers as quaternary centers

The most important centers, which currently are the biggest ones in the Slovak Republic, have the largest number of facilities that perform so-called quaternary activities. From this point of view we can say that these towns have the biggest potential in the future to fulfil the function of quaternary centers. Bratislava has the largest number of research institutions and universities. The town ranked according to the share of universities and faculties, as expressed by the number of students, are as follows: Košice, Nitra, Banská Bystrica, Žilina, Prešov, Trnava, Zvolen, Trenčín, Ružomberok and Liptovský Mikuláš (there are special universities in these towns).

The agglomerations with the biggest universities as to the number of students and faculties have the best preconditions to create new quaternary centers. In this context the Bratislava –Trnava - Nitra agglomeration, is definitely the most significant and promising center, followed by the Košice - Prešov agglomeration. Then there is the Banská Bystrica - Zvolen agglomeration and the Žilina - Martin agglomeration. These four agglomerations have the best preconditions to develop in their territories quaternary activities of various types with national to international importance.



Tertiary centers

8.3 Expected trends of development of settlement centers

The settlement development in Slovakia and in the whole of Europe is and in the following period will be marked and influenced by some basic trends. These trends include globalization, regionalization and introduction of new information and production technologies.

The knowledge that the implementation and effects of these trends will exceed the framework of individual towns/settlements is the most dominant and decisive sign of the above trends. That means that a town (no matter how big) will, as a consequence of the expected changes, not be able to fully saturate all the requirements arising from the changing trends of the life of society and production processes, and that will not be able to individually provide for the whole range of differentiated requirements for quality environments meeting the various demands and interests of the population. However, each town wishing to prosper will have to develop new relationships with its rural hinterland, but especially with other towns, with which it will be able to provide for its competitiveness at the national and international level only if there is a partner-like co-existence between the towns.

9 Setttlement core areas

Settlement core areas are settlement systems that include settlement groups ranging from agglomeration settlement systems to settlement groups based on simple settlement relations on the principle of the polarization effects of centers.

The most developed settlement and agglomeration links can be found around the biggest towns that are currently administrative centers of regions. Belts of settlement groups are being established around these towns. We can see the sub-urbanization ("the pushing out" of activities from the core of the town to its hinterland) and decentralization effects within settlements adjacent and in direct relation to the territories of the biggest towns (Settlement core areas). This creates a full or a partial "ring" of communities which, together with the core town, form so-called core belt. This area neighbors with communities that have very intensive links to the core settlement area or in case of polycentric Settlement core areas to the core of these areas. This creates the second, suburban belt that is connected to the marginal belt. This belt contains visible links to the core(s) of the core settlement area, especially in the intensity of commuting to and from work. However, their relations can be mediated through the smaller towns that form the polycentric system of the core settlement area. The territorial demarcation of these areas is not stable and static. These are territories that change (pulse) over time. This depends on the development of activities in the individual belts and on the development of the "strength" of the core(s) of the core settlement area. The settlement core areas, which are made up of these agglomeration settlement systems, are included in the first level. Based on the demarcations of these agglomerations – first-level settlement core areas, about 24% of the total population of Slovakia lives in the core towns, 27 % live in the cores and in the core areas and 35% live in the cores, core areas and suburb belt. About 50% of the population of Slovakia lives in the demarcated core settlement areas of the first level.

About 16% of the total population of Slovakia lives in the second-level settlement core areas and 12% lives in the third-level settlement core areas.

About 23% of the population of Slovakia lives outside the demarcated settlement core areas of all levels.

Under Slovak conditions (size of territory, population, economic strength, etc.) the model of decentralization of settlement-forming activities into regions is acceptable for the spatial development. In the interest of the development of the competitiveness of regions it is necessary to apply the decentralization model so that it will be possible to create effectively functioning and functional comprehensive agglomerations or settlement core areas. The settlement core areas should fulfill the function of accelerators of general development. They should develop on the basis of partnership relations between the different towns and between the towns and their hinterlands – the rural areas.

The objective of the territory-planning policy is to preserve and further develop the relative evenly distributed network of mid-sized towns and to support them in the development of cores of settlement groups – settlement core areas. The promotion of the development of towns should create a polycentric system of towns and settlement core areas and a higher functional complexity of the regional units. The principle of the development of polycentric systems in the interest of a higher functional complexity must also be applied to the cross-border and international scene.

First-level settlement core areas

The first-level settlement core areas can be divided into several agglomeration groups based on the differences and specifications.

A special group consists of

- the Bratislava - Trnava core settlement area,

which is currently the most developed agglomeration in Slovakia.

The second group includes:

- the Košice - Prešov core settlement area,

which is also made up of intensive agglomeration links of settlement between two cores that form the second biggest towns of Slovakia. However, its size and other development potential of this area are not as intensive and as big as the Bratislava - Trnava core settlement area.

The third group is made up of the settlement core areas:

- Banská Bystrica – Zvolen and
- Žilina - Martin,

which are created around bipolar cores that represent settlement centers of higher importance.

The fourth group consists of:

- the Nitra core settlement area
- the Trenčín core settlement area.

These are agglomerations with distinctive monocentric core and mid-sized and small towns situated in their hinterland.

The Nitra core settlement area has a specific position, because the core town and many of its settlements show strong agglomeration tendencies in the Bratislava direction, which means that in the near future we can talk about

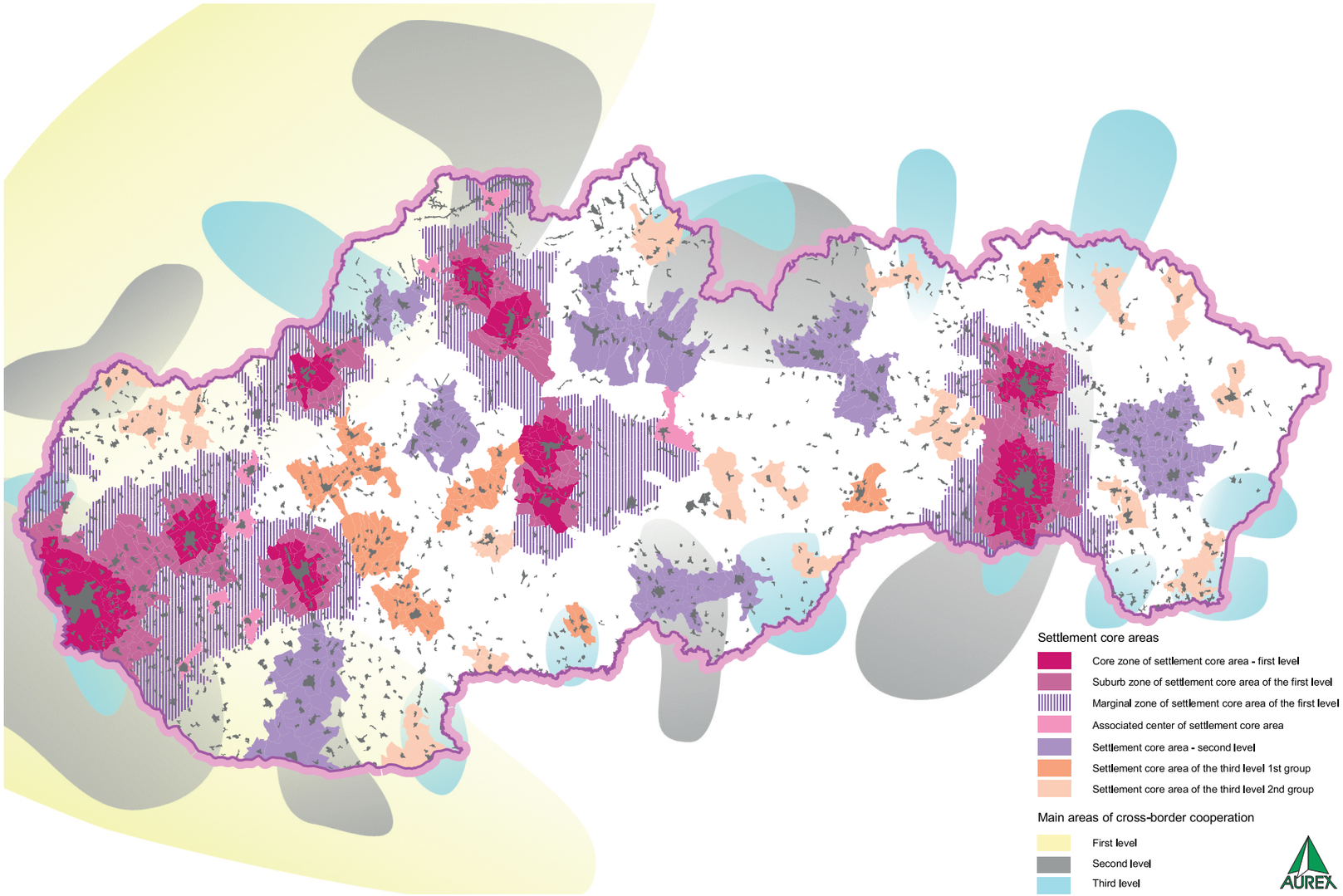
- the Bratislava – Trnava - Nitra core settlement area.

Second-level settlement core areas

The second level comprises settlement core areas created around mid-sized towns (basically around the centers of the second group). Here we can see weaker agglomeration links between centers and in relation to the surrounding communities we can see the stronger polarization (centripetal) effects of the cores of these settlement core areas. The territories of the second-level settlement core areas were monitored without their internal division. The same applies to their demarcation as applies to the previous settlement core areas – variability and flexibility of borders.

The second-level settlement core areas are as follows:

- the Liptovský Mikuláš – Ružomberok - Dolný Kubín settlement core area
- the Lučenec - Rimavská Sobota settlement core area
- the Michalovce – Vranov - Humenné settlement core area



Polycentric system of settlement core areas

- the Nové Zámky – Komárno settlement core area
- the Poprad - Spišská Nová Ves settlement core area
- the Považská Bystrica – Púchov settlement core area
- the Prievidza settlement core area.

Third-level settlement core areas

The third-level settlement core areas are divided into two groups. The first group is made up of settlement core areas that are created on the basis of the centripetal effects of the core town or agglomeration relations between small towns (usually pairs) – cores of a smaller scope. They are mainly based on narrowly focused work relations from the previous development. The first group consists of:

- the Bánovce nad Bebravou and Partizánske core settlement area,
- the Bardejov core settlement area,
- the Levice core settlement area,
- the Rožňava core settlement area,
- the Topoľčany core settlement area,
- the Veľký Krtíš core settlement area,
- the Zlaté Moravce core settlement area,
- the Žiar core settlement area.

The second group of settlement core areas at this level consists of settlement core areas of lower importance where we can see only centripetal effects of the center in relation to its nearest surroundings. The second group consists of:

- the Banská Štiavnica core settlement area,
- the Gelnica core settlement area,
- the Hnúšťa core settlement area,
- the Kráľovský Chlmec core settlement area,
- the Krompachy core settlement area,
- the Medzilaborce core settlement area,
- the Myjava core settlement area,
- the Revúca core settlement area,
- the Senica core settlement area,
- the Skalica - Holíč core settlement area,
- the Snina core settlement area,
- the Stará Ľubovňa core settlement area,
- the Svidník - Stropkov core settlement area,
- the Šahy core settlement area,
- the Štúrov core settlement area,
- the Tornaľa core settlement area,
- the Trebišov core settlement area,
- the Tvrdošín - Námestovo core settlement area,
- the Veľké Kapušany core settlement area.

9.1 Development tendencies and recommendations

An active and competitive agglomeration or core settlement area must meet requirements for adequately functional complexity i fit wants to develop itself. Because of the various requirements for functional complexity, this complexity can be achieved only in a regional context. The question of cooperation between individual towns and a new view of the coexistence between a town and its rural hinterland comes to the foreground.

For further positive development of settlement core areas and adjacent rural areas it is necessary to promote diversification of the economic basis and to use local conditions and specifications of a town and its hinterland.

The settlement core areas should play the role of initiators and accelerators of general development and should significantly contribute to the competitiveness of individual regions. In the interest of the development of this competitiveness, it is necessary to apply the decentralization model. However, the decentralization model should be applied so that it will be possible to create effective, functional and comprehensive agglomerations / settlement core areas in individual regions.

The process of decentralization should be aimed to the specialization and differentiation arising from specific features and conditions of individual territories. It is also necessary to develop a polycentric system – network of towns and agglomerations that effectively support the creation of the higher functional comprehensiveness of regional units. Supra-town and supra-regional network structures are the basic prerequisite for higher local and regional competitiveness.

10 Development axes

Development axes are a part of a balanced hierarchical settlement structure. They support the settlement relations between communities and balanced settlement development, including the rural development. They create conditions for access to infrastructure, preservation and development of natural and cultural heritage, as well as provide for requirements that are imposed on the settlement structure from the economic, social and environmental links point of view. The development axes effectively fulfill the requirements for permanent sustainability and the creation of healthy and environmentally suitable living and working environment.

Development axes in the Slovak Republic are create within a hub-belt settlement system, the core of which is made up of settlement centers and transportation-communication systems connecting individual centers.

Development axes are divided into three stages.

The first stage development axis connects the first group settlement centers with the first level settlement core areas in the country and comparable centers outside state borders. It includes at least one road communication link and one speed railway communication link.

The second stage development axis connects the second group settlement centers and the second level settlement core areas with the first group settlement centers and the first level core settlement areas, or it connects the second group settlement centers with the second level settlement core areas. It includes at least one road communication link and one railway communication link of supra-regional importance, or one highway.

The third-stage development axis connects the mid-sized centers with the third level settlement core areas and other settlement centers.

Apart from the development axes described above, the Slovak Spatial Development Perspective comprises so-called communication-settlement axes. These axes do not achieve the density of settlements included in the development axis or the population and population density of communities connected by the development axis, but are important for the continuity of connection between two settlement centers situated in the development axis direction. For this reason, the communication-settlement axes have a character of transportation systems that connect centers and support the operation of development axes in their whole length. Sometimes no settlements are situated on these communication-settlement axes.

First stage development axes:

- the Považie development axis: Bratislava -Trnava - Trenčín – Žilina,
- the Žilina - Tatra development axis: Žilina - Martin - Poprad – Prešov,
- the Žilina - Kysuce development axis: Žilina - Čadca - state border with the Czech Republic
- the Košice - Prešov development axis: state border with Poland - Svidník – Prešov - Košice - Čaňa - state border with Hungary,
- the Nitra - Pohronie development axis: Trnava - Nitra - Žiar nad Hronom – Zvolen,
- the Zvolen - Turiec development axis: Zvolen - Banská Bystrica - Turčianske Teplice - Martin (in the section Banská Bystrica - Turčianske Teplice as communication settlement axis)
- the Zvolen - South Slovakia development axis: Zvolen - Lučenec (exit to Salgótarján) - Rimavská Sobota - Rožňava - Košice,
- the East Slovakia development axis: Košice - Sečovce - Michalovce - Sobrance - state border with Ukraine,
- the Záhorie development axis: Bratislava - Malacky - Kúty - state border with the Czech Republic,
- the Lysá development axis: Beluša - Púchov - Lysá pod Makytou - state border with The Czech Republic.

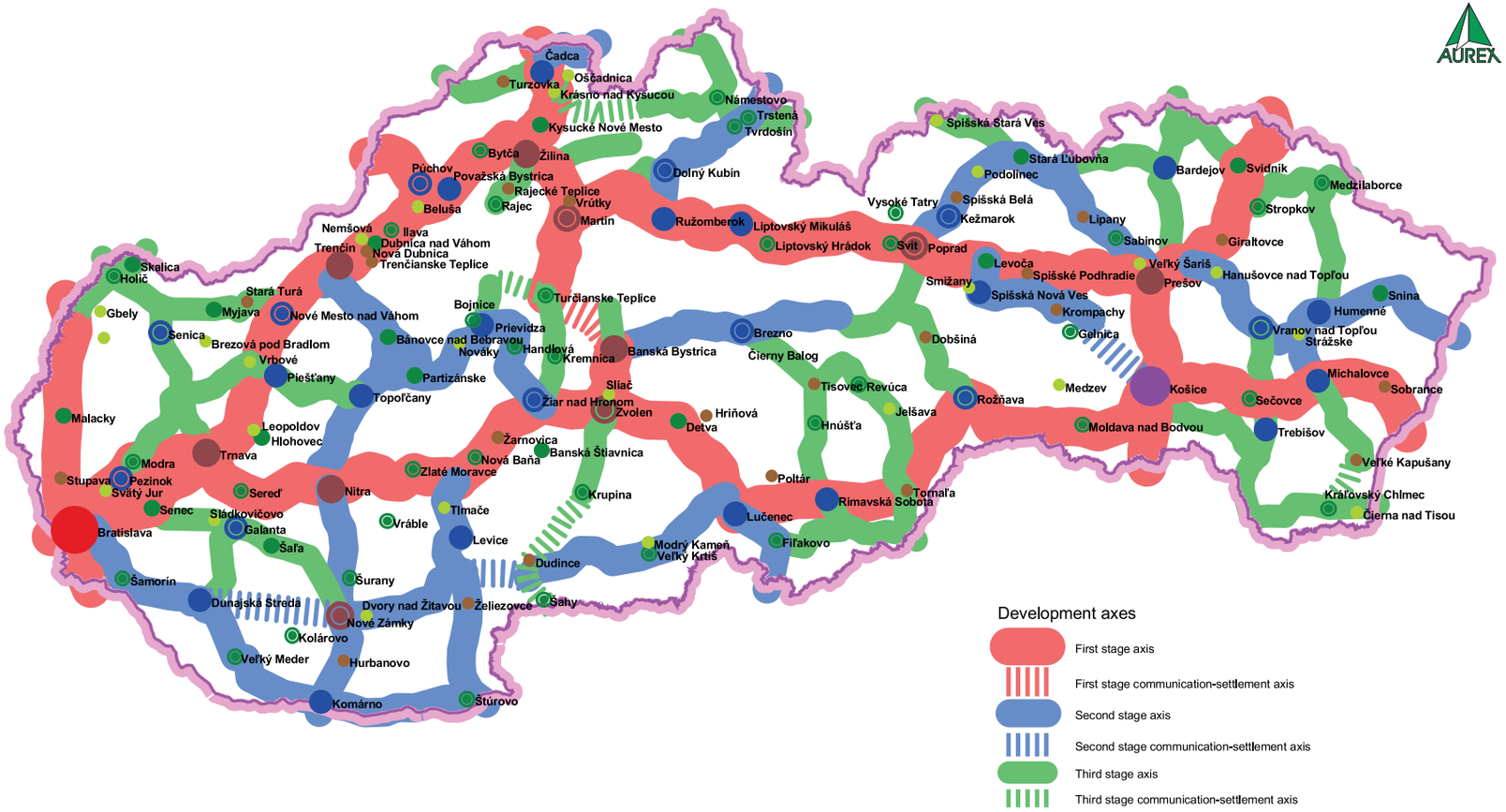
Second stage development axes:

- the Žitný Ostrov - Danube development axis: Bratislava - Dunajská Streda - Komárno –Štúrovo,
- the Ponitrie development axis: Trenčín - Bánovce nad Bebravou - Topoľčany - Nitra - Nové Zámky – Komárno,
- the Horná Nitra development axis: Topoľčany/Bánovce nad Bebravou - Partizánske -Prievidza - Handlová - Žiar nad Hronom,
- the Pohronie development axis: Hronský Beňadik - Levice - Želiezovce – Štúrovo,
- the South Slovakia development axis: Danubeská Streda - Nové Zámky - Želiezovce - Šahy - Veľký Krtíš - Lučenec (in the sections Dunajská Streda - Nové Zámky, Želiezovce - Dudince as communication settlement axis),
- the Novohrad development axis: Lučenec - Fiľakovo - state border with Hungary,
- the Liptov - Orava development axis: Ružomberok - Dolný Kubín - Trstená - state border with Poland
- the Horné Pohronie development axis: Banská Bystrica - Brezno – Telgárt,
- the Prešov - Michalovce development axis: Prešov - Hanušovce nad Topľou - Vranov nad Topľou - Strážske - Michalovce/Humenné,
- the Vihorlat development axis: Humenné - Snina - state border with Ukraine,
- the Kežmarok - Torysa development axis: Poprad - Kežmarok - Stará Ľubovňa - Sabinov - Prešov,
- the Hornád development axis: Spišský Štvrtok - Spišská Nová Ves - Krompachy - Košice (in the section Gelnica - Košice as communication settlement axis),
- the Skalité development axis: Svrčinovec - Čierne - Skalité - state border with Poland.

Third stage development axes:

- the Záhorie-Trnava development axis: state border with the Czech Republic - Holič - Senica –Trnava,
- the Dolná Morava development axis: Kúty - Holič - Skalica - state border with the Czech Republic,
- the Small Carpathian development axis: Modra - Smolenice - Chtelnica – Vrbové,
- the Piešťany-Topoľčany development axis: Vrbové - Piešťany – Topoľčany,
- the Myjava development axis: Senica - Myjava - Stará Turá - Nové Mesto nad Váhom,
- the Danube development axis: Senec - Galanta - Nové Zámky,
- the Dudváh development axis: Galanta - Danubeská Streda,
- the Kremnica - Turiec development axis: Žiar nad Hronom - Kremnica - Turčianske Teplice,
- the Horná Nitra - Turiec development axis: Prievidza - Turčianske Teplice (in the section Nitrianske Pravno - Turčianske Teplice as communication settlement axis),
- the Kysuce development axis: Čadca - Turzovka – Makov,
- the Kysuce - Orava development axis: Krásno nad Kysucou - Nová Bystrica -Námestovo - Tvrdošín - Trstená - Suchá Hora - state border with Poland (in the section Krásno nad Kysucou - Nová Bystrica - Oravská Lesná as communication settlement axis),
- the Kraľovany development axis: Kraľovany - Dolný Kubín,
- the Polhora development axis: Námestovo - Oravská Polhora - state border with Poland,
- the Žilina development axis: Žilina - Varín – Terchová,
- the Rajec development axis: Žilina – Rajec,
- the Staré Hory development axis: Banská Bystrica - Staré Hory,
- the Šariš development axis: Prešov - Bardejov - state border with Poland,
- the Ľubovňa - Svidník development axis: Stará Ľubovňa - Bardejov – Svidník,
- the Zamagurie development axis: Stará Ľubovňa - Spišská Stará Ves,
- the Laborec development axis: Svidník - Stropkov - Medzilaborce – state border with Poland/Humenné,
- the Zemplín development axis: Košice - Slovenské Nové Mesto - Kráľovský Chlmec -Čierna nad Tisou,
- the Vranov-Trebišov development axis: Vranov nad Topľou - Sečovce – Trebišov,
- the Horehronie development axis: Telgárt - Vernár – Poprad,
- the Rožňava-Dobšiná development axis: Rožňava - Dobšiná – Vernár,
- the Muráň development axis: Hungary/SR state border - Tornaľa - Revúca – Tisovec,
- the Rimavica development axis: Rimavská Sobota - Hnúšťa - Tisovec – Brezno,
- the Cerov development axis: Fiľakovo - Rimavská Sobota/Rimavská Seč – state border with Hungary /Tornaľa,
- the Krupina development axis: Zvolen - Krupina - Šahy - state border with Hungary (in the section Krupina - Šahy - state border with Hungary as communication settlement axis),
- the Južný Laborec development axis: Michalovce - Veľké Kapušany - Kráľovský Chlmec (in the section Veľké Kapušany - Kráľovský Chlmec as communication settlement axis).

Development axes



11 Rural settlement

The definition of rural areas is contained in the document of EC - DG ARD and Eurostat. Rural area is defined as community with population density below 150 inhabitants per km$^{2.}$ According to this definition, 86 % of the area of the Slovak Republic has a rural character. Based on data published by the Statistical Office of the Slovak Republic, the Slovak Republic has at the level of self-governing regions (NUTS3) two distinctly rural regions with more than 50 % of inhabitants living in rural areas – the Banská Bystrica region (52.2 %) and the Nitra region (51.3 %). Five regions are classified as other rural regions with 15% to 50% of population living in rural communities – the Trnava region (45.6 %), the Prešov region (42.9 %), the Žilina region (40.1 %), the Košice region (39.3 %) and the Trenčín region (36.1 %). The Bratislava region (13.4 %) is a predominantly urban region with less than 15% of population living in rural communities.

For the purposes of evaluation in the Slovak Spatial Development Perspective, a rural area is demarcated by territories of communities that according to the Act No.369/90 Coll. on municipal establishment are not recognized as towns and whose population is less than 5 000. In 2000 42.2% of the Slovak population lived in rural areas. The average population density in the Slovak Republic is 109.6 inhabitants/km2. The average population density in countryside was 55.2 inhabitants/km^2 and in the towns 400.6 inhabitants/km^2. Generally, we can say that the age structure of the population is very favorable in towns and unfavorable in the countryside.

From point of view of the structure of job opportunities in rural areas of the Slovak Republic, the primary sector prevails in most districts. More than 14 % of districts represent agricultural countryside, 17 % of districts have an agricultural-manufacturing character with a very shall share of the tertiary sector. Ten per cent of the districts have a manufacturing-agricultural character with a very small share of the tertiary sector and nearly 9% of the districts have an agricultural-service character.

The future of the rural areas will generally depend on restructuring and the possibilities of obtaining and creating job opportunities for the rural population outside agricultural sector.

From the territorial planning and regional planning point of view, along the lines of the structure of the economic basis of rural areas, we can define spatial types on the following basis:

- the relations between the town and its rural hinterland (dominance of the town as a settlement center),
- the character of settlement of the rural area (size and density of rural communities),
- relations to the higher settlement groupings (rural area as a part of settlement structures).

As far as partnerships between the town and the countryside on the development of rural areas is concerned, three policies are recommended:

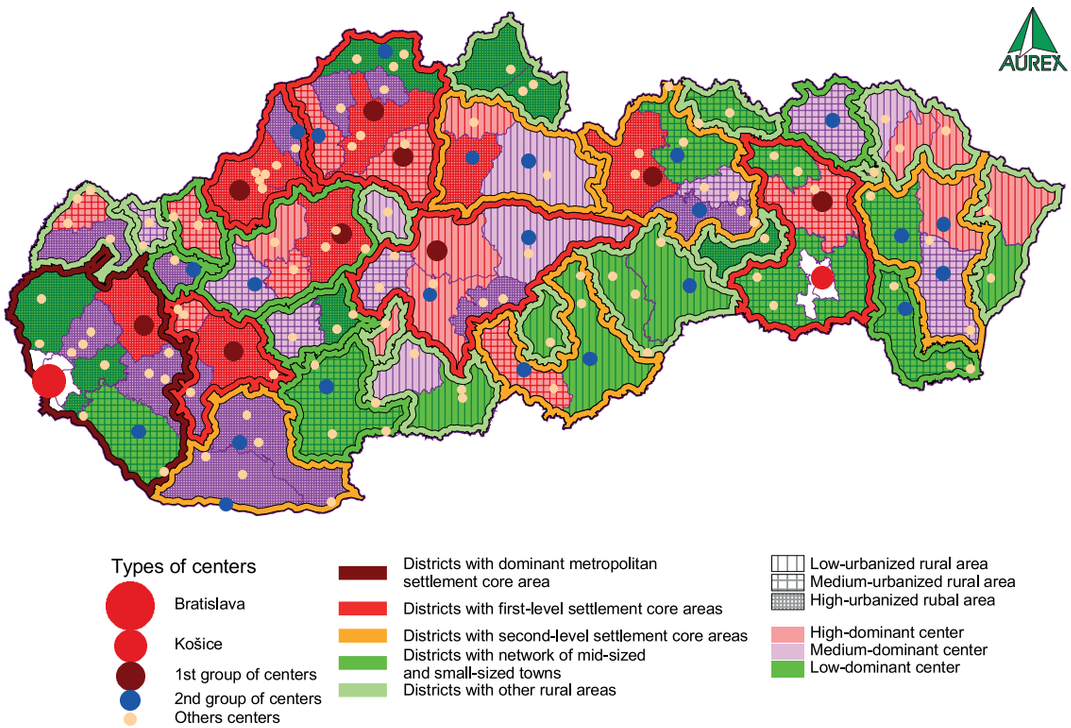
- the acceleration of the agricultural restructuring and diversification of the economy,
- the utilization of natural and cultural specifications,
- the development of the economy of small and mid-sized towns.

The rural development in the future cannot be successful without the utilization of modern information technologies. They should not be applied only to the creation of non-agricultural job opportunities in the rural areas, but also to the organization of functioning of agricultural activities, their coordination at the regional and national level, and so on. Therefore, it is necessary to create and provide for adequate professional education and training for people living in the rural areas.

From the point of view of territorial planning, architecture and the landscape character of individual territories and rural communities, it is recommendable to preserve the original, specific character of the rural areas, i.e. to draw upon the original character of constructions and the developed character of the surrounding country. In order to preserve the identity of the environment it is desirable to preserve historical buildings in communities, to maintain the traditional nomenclature of folk architecture, and to take into account the ethnographical specifications in individual regions.

As far as the construction of infrastructure in rural areas is concerned, it is necessary to provide for good access of rural areas to the settlement centers, to build drinking water distribution systems, to build sewage systems with adequate water treatment plants, and to build municipal waste disposal systems.

Characteristics of districts in terms of the town-country relationship



12 Landscape structure of the Slovak Republic

The landscape structure means the horizontal and vertical arrangement of the properties of landscape elements, which are combined in a certain space due to differentiation factors and thus create various landscape-ecological potentials for use. The Slovak Spatial Development Perspective analyzed selected elements of the landscape structure.

12.1 Landscape-ecological potential

The landscape-ecological potential is used for the evaluation of the possibilities of spatial development. It enables us to determine the suitability to which man can use the country provided that he will permanently sustain its renewability – biodiversity, natural resources, ecological stability and other quantitative and qualitative properties of the landscape, along with the mutual links between the landscape elements.

Protection of nature and landscape

The elements of the protection of nature and landscape under the Act[4] represent a very significant potential of natural heritage. Their uniqueness and significance is determined by natural conditions. Different stages of legislative protection provide for favorable conditions for their existence. They limit various activities in the country and provide for higher protection of other landscape elements, in particular natural resources.

The National System of Protected Areas currently includes 9 national parks, 1 protected landscape element, 14 protected landscape regions, 386 natural reservations, 219 national natural reservations, 219 natural monuments, 11 national natural monuments and 172 protected areas (State List of the Protected Elements of Nature and Landscape, 31.12. 2010).

The biggest natural heritage potential is in the forest and forest-steppe communities as well as the currently most threatened water and marsh ecosystems. These are locations that have been preserved as isolated areas in the regions with intensive agricultural use.

In the area of the protection of nature and landscape one of obligations is to create a continuous European system of conservation sites - NATURA 2000. NATURA 2000 consists of two types of territories – bird protection areas and areas of European importance.

In the territory of Slovakia there are currently 40 bird protected areas with a total area of 1,237,213.38 ha (15.02. 2011). The National list of proposed areas of European importance was approved by the government of the Slovak Republic in March 2004. By decision of the European Commission the national list of areas of European importance was approved with 381 areas for the Alps and Pannonia biogeographic region with a total area of 573 935 ha.

4 *Act No. 543/2002 Coll. on the Protection of Nature and Landscape, as amended.*

Territorial system of ecological stability

The objective of the spatial ecological stability of the landscape is to create such a landscape structure that is able to preserve the spatial ecological relations between individual ecosystems (in order to exchange material, energy and information) for a dynamic variability of conditions and forms of life, even in case of a landscape consisting of local ecosystems with various (also low) levels of ecological stability. The implementation of a territorial system of ecological stability is necessary for the achievement of sustainable development.

The system is based on is the skeleton of the territorial system of ecological stability, consisting of bio-centers, bio-corridors and interactive elements. The set of measures for an ecologically optimal organization of landscape use is also an important part of the national territorial system of ecological stability.

The Conception of the Territorial System of Ecological Stability was prepared and approved in 1991. The preparation of projects for the territorial system of ecological stability was based on the "top - down" principle – from the Guidelines of the Supra-Regional Territorial System of Ecological Stability through the regional territorial systems of ecological stability to the local territorial systems of ecological stability.

Guidelines of the Supra-Regional Territorial System of Ecological Stability NECONET

The Guidelines of the Supra-Regional Territorial System of Ecological Stability were prepared in 1992. The guidelines include the basic framework of spatial ecological stability of the territory of the Slovak Republic. It represents a spatial arrangement of the ecologically most important preserved natural areas (especially forests, morass, rocks, accompanying plants of waterways, etc.) and expresses the relations between and status of ecologically stable areas in Slovakia in connection with the European system of ecologically stable areas, thus creating an important document for the preparation of strategy for the protection of the ecological stability, biodiversity and the genofund of the Slovak Republic. The Guidelines of the Supra-Regional Territorial System of Ecological Stability were prepared in scales of 1 : 500 000 and 1 : 200 000 and approved by the government of the Slovak Republic in April 1992.

The Guidelines of the Supra-Regional Territorial System of Ecological Stability define 87 bio-centers, of which 77 are supra-regional, 9 bio-centers are provincial and 1 bio-center is biospheric. In many cases these bio-centers are parts of national parks and protected landscape areas and their cores are often connected to smaller protected areas.

A draft of the National Ecologic Network, known as NECONET, was prepared in connection to the Guidelines of the Supra-Regional Territorial System of Ecological Stability. The NECONET draft was prepared on the basis of the conception of the creation of a European Ecological Network (EECONET), which is based on the Dutch conception. This network represents a network of significant, specially protected areas that are important for the protection of the genofund and biodiversity.

In the territory of Slovakia, the NECONET was adopted in 1996 (IUCN, 1996). NECONET defines 35 core areas of European importance and 35 core areas of national importance. Many of them overlap with elements of the territorial system of ecological stability of supra-regional and regional character.

Areas of international importance

Within the framework of international agreements, several important contracts apply to the territory of the Slovak Republic. These contracts define the following territories and locations:

Biospheric reservations – internationally monitored representative areas for research and monitoring within the "Man and Biosphere" (MaB) UNESCO Program 4 locations.

Ramsar locations – under the Agreement on Morass having international importance, especially as biotopes for water birds - 14 declared locations.

Locations of the world natural heritage – under to the Agreement on the Protection of the World Cultural and Natural Heritage – within the framework of natural heritage: this applies to the protection of caves and precipices situated in Slovenský kras (12 sites), the Ochtinská Aragonite Cave, the Dobšinská Ice Cave and the Carpathian Beech Forests (4 sites), which are declared national natural monuments and natural reservations and protected under international law.

European diploma of the Council of Europe - 2 locations.

The EUROSITE award – for the promotion of the care of nature, especially at the international level - 1 location.

12.2 Environmental Division of the territory of the Slovak Republic

Typification of the landscape based on the burden and damage imposed on landscape elements

Based on the mutual combination of stress factors, we can say that the most burdened areas are made up of the industrial areas of Slovakia, or areas of old mining activities (Ministry of Environment of the Slovak Republic, 2004). The environmentally most stressed areas tend to reduction, especially in the region of Horné Považie and in the east of Gemer. On the contrary, increase in the scope of stressed area is apparent in lower Zemplín. In other cases the trend of changes in spatial scope of stressed areas is insignificant.

Higher concentrations of selected elements in the soil can be found in the area of the Small Carpathians, Low Tatras, the Kremica and Štiavnica mountains etc.

The low-land areas of Slovakia with intensive agricultural production are characterized by higher levels of groundwater contamination and a higher content of phosphorus, fluorine, and partially cadmium in the soil. Simultaneously these areas are characteristic for their low level of spatial ecological stability.

Mountainous and piedmont areas of Slovakia are characterized by higher levels of threat to and impairment of the soil fund due to natural stress factors – slope deformation, erosion processes, avalanche hazard, etc.

Typification of the Slovak landscape

Harmonization of socio-economic development with the natural conditions of each region is the basic prerequisite for avoidance of problems regarding threats to the ecological quality of the area, its natural resources, and the immediate living environment of inhabitants. The economic development of regions will be successful only when it maximally respects the primary, invariable landscape structure. Therefore, from the point of view of economic development of regions, the following indicators are the most important ones for the supra-regional landscape structure: natural location in relation to neighbors in the supra-regional and regional sense, internal division, natural borders, their barrier effect and permeability, opportunities and routes of natural interconnections with neighbors, the location of the region with regards to other economic areas, transportation location, and other factors. The ecological quality of the current landscape structure, biodiversity, and the quality of elements of the immediate living environment of man are other very significant, and more or less stable (although variable) indicators of individual regions.

The natural-socioeconomic regions can be regarded as basic starting territorial units for sustainable development from the regional aspect. With regard to the natural-socioeconomic regionalization, the territory of the Slovak Republic can be divided into 7 main natural-settlement, tributary, location areas:

- Bratislava
- Dolná Morava
- Dolné Považie - Podunajsko
- Stredné Považie- Horné Považie
- Pohronie-Ipeľ
- Rimava - Hornád - Poprad
- Bodrog.

These seven main natural-settlement, tributary, location areas are further divided into 19 regions.

Demarcation of settlement-ecological regions by districts

12.3 Draft of the Renewal and Care of the Landscape

From the point of view of preservation of ecologically valuable landscape units (protected areas, elements of the territorial system of ecological stability, and other valuable landscape space) it is necessary to implement a real functioning territorial system of ecological stability at all three levels - supra-regional, regional and local, while fully respecting and enforcing valid laws on the protection of nature and landscape. This objective must be preserved by means of:

- Organizational-spatial aspects – focused on ecologically optimal use of territory, including natural resources
- Technological aspect – focused on the ecologization of manufacturing technologies in the landscape protecting individual natural resources against stress factors
- Socio-economic aspect – focused on the economic stimulation of sustainable use of natural resources
- Political aspect – focused on the institutional implementation of sustainable use of natural resources, etc

13 Transport and spatial development of Slovakia

13.1 Development plans of the Ministry of Transport as defined in official documents at the international and national levels

International level

The pan-European transport network covers the territories of existing and candidate countries of the European Union with assumption of inclusion of other transport corridors in third countries, states of the former Soviet Union and Yugoslavia. The main transport network TEN-T[5] in the territory of 10 new countries of the European Union comprises networks situated in multimodal transport corridors approved by the Transport Conference of ECMT[6] in Helsinki in 1997. The final design of TEN-T accepts the specifics of transport-settlement area and environmental limits of the territory of the Slovak Republic.

The network of pan-European multimodal corridors of ITF (ECMT) and TEN-T network running through Slovakia consists of:

- Multimodal corridor No. IV (Berlin/Nuremberg - Prague) - Kúty -Bratislava/Rusovce - (Budapest - Romania/Turkey/Greece) located for roads of the network TEN-T, (Berlin/ Nuremberg - Prague) - Kúty - Bratislava - Nové Zámky - Štúrovo - (Budapest - Romania/ Turkey/Greece) located for conventional railway and combined transport lines of the TEN-T network
- Multimodal corridor No. V, branch Va (Austria) - Bratislava/Jarovce - Žilina - Košice - Záhor/Čierna nad Tisou - (Uzhgorod - Lviv) located for roads, conventional railway and combined transport lines and high-speed railway line Bratislava - Žilina,
- Multimodal corridor No. VI (Gdansk - Warsaw - Katowice) - Skalité - Čadca -Žilina/ Hričovské Podhradie/Dubná Skala located for roads, conventional railway and combined transport lines of TEN-T network and high-speed railway line Skalité - Žilina,
- Multimodal corridor No. VII, the waterway Danube with public ports in Bratislava, Komárno and Štúrovo
- Main railway junction points and basic public terminals of combined transport network TEN-T in Bratislava (multimodal corridors No. IV and V - branch Va), Žilina (multimodal corridors No. V, branch Va, VI.), Košice and Dobrá – replacement for the initial terminal in Čierna nad Tisou (multimodal corridor No. V, branch Va),
- Airports of TEN-T network for international traffic in Bratislava (multimodal corridors No. IV. and V branch Va), Košice and Poprad (multimodal corridor No. V, branch Va),

The Slovak Republic together with the other Visegrad countries monitors and actively participates in the process of revision of the TEN-T network. Within the framework of joint initiative with the Czech Republic Slovakia requested the main axes of the west – east connection to be completed by the central axis Nuremberg/Dresden - Prague - Olomouc -

5 *TEN-T Trans European Network for Transport*

6 *ECMT The European Conference of Ministers of Transport , which has been transformed to ITF International Transport Forum*

Púchov - Žilina - Košice - Uzhgorod. In the territory of Slovakia and of the whole proposed axis, only the road section SR/CR state border - Lysá pod Makytou - Púchov - Beluša is not included in the TEN-T network. After the completion of the TEN-T network by this road section the multimodal corridor will be created in the whole proposed length.

It is the initial west-east corridor of the former Czechoslovak Federative Republic, which comprised, apart from the central branch via Púchov, the north branch running through Ostrava. For operating and economic reasons it would be effective to use this two-branch structure of the proposed axis in the TEN-T network as well.

An analogous situation, but without need to include a new section in the TEN-T network, occurred in the area of connection of branches of corridors No. V and No. V branch "a" between Košice and Miškovec. After the completion and modernization of the conventional railway line and express way both towns will be connected through transport infrastructure of multimodal character.

National level - road infrastructure

The main strategic objective of the state transport policy of the Slovak Republic resulting from the orientation of the European transport policy is the creation of conditions for permanent focus of development with the aim to achieve sustainable mobility with integrated use of all transport modes, with special emphasis put on intermodality and promotion of environmentally friendly transport modes. In the area of development of transport infrastructure the priority is construction and modernization of infrastructure in routes of multimodal corridors IV, V and VI.

The following table shows the currently valid routes of motorways and express ways[7]:

Routes of motorways:

Motorway	**Total route of motorway** According to the List of Motorways and set out in Annex No. 2 to the Act No. 135/1961 Coll. on roads (Road Act).	**Corridor of ITF (ECMT)**
D1	Bratislava/Petržalka - intersection with D2 - Trnava -Trenčín - Žilina - Prešov - Košice – SR/Ukraine state border	V a.
D2	CR/SR state border - Kúty - Malacky - Bratislava – SR/Hungary state border	IV.
D3	Žilina - Kysucké Nové Mesto - Čadca - Skalité - SR/Poland state border	VI.
D4	Austria/SR state border - Bratislava intersection with D2 Jarovce - intersection Rovinka - intersection with D1 Ivanka pri Dunaji-North - intersection with road II/502 - intersection with road I/2 - intersection with D2 Stupava south - SR/Austria state border	V branch V a in the section SR/ Austria state border -Bratislava/Jarovce

7 *The List of Motorways and Express Ways forms Annex No.2 to the Act No. 135/1961 Coll. on roads (road Act), as amended, since 1 February 2009.*

Routes of express roads:

Express way	**Total route of express way** According to the List of Motorways and set out in Annex No. 2 to the Act No. 135/1961 Coll. on roads (Road Act).	**Route of express way in TEN-T network**
R1	Trnava - Nitra - Žarnovica - Žiar nad Hronom -Zvolen - Banská Bystrica - Ružomberok	Šášovské Podhradie – Budča
R2	Trenčín intersection D1 - Prievidza - Žiar nad Hronom - Zvolen - Lučenec - Rimavská Sobota - Rožňava - Košice	Šášovské Podhradie – Budča
R3	Hungary/SR state border - Šahy - Zvolen - Žiar nad Hronom - Turčianske Teplice - Martin - Kraľovany - Dolný Kubín - Trstená - SR/Poland state border	Martin - Turčianske Teplice - Šášovské Podhradie - Budča - Zvolen - Šahy - SR/Hungary state border
R4	Hungary/SR state border - Milhosť - Košice -Prešov - Giraltovce - Svidník – SR/Poland state border	Complete route of express way R4
R5	CR/SR state border Svrčinovec – intersection with D3	-
R6	CR/SR state border Lysá pod Makytou - Púchov	Proposal for inclusion of the complete route
R7	Bratislava - Danubeská Streda - Nové Zámky - Veľký Krtíš - Lučenec	-
R8	R2 - Partizánske - Topoľčany - Nitra - R1	-

National level – railway transport infrastructure

The priority of the Program of Modernization and Development of Railway Transport Infrastructure adopted by the government of the Slovak Republic is the modernization of corridor conventional routes, especially through increasing the track speed, reconstruction of stations and stops, flyover crossings of railway lines with roads. Within the European priority project No. 23 Railway axis Gdansk - Skalité -Žilina - Bratislava - Vienna construction works on modernization of lines from Bratislava to Krásno nad Kysucou and Čadca (pan-European corridors No. V branch "a" and No. VI) are going on. Within the European priority project No. 17 Railway axis Paris -Vienna - Bratislava projects for the implementation of new railway lines and modernization of lines in the area of the Bratislava railway junction are under preparation. The modernization of lines and the project of interoperability of pan-European corridor No. IV Kúty - Bratislava, completion and revitalization of sorting station Žilina - Teplička, modernization of railway junction Čierna nad Tisou are prepared. The work on the project documentation of modernization of lines of the pan-European corridor No. V branch "a" in the section Liptovský Mikuláš – Košice is going on. From non-corridor lines, projects of restoration of standard-gauge track on the border crossing Maťovce -Uzhgorod and electrification of the line Zvolen – Fiľakovo are under preparation.

The transport infrastructure allocated and planned in routes of non-corridor lines of ITF networks of conventional railway and combined transport TEN-T in the territory of Slovakia is as follows:

- (Krakow) - Plaveč - Prešov - Košice - Kechnec (Miškovec - Romania), in the section Košice - Kechnec - (Miškovec)
- Leopoldov - Galanta
- Nové Zámky - Komárno - (Komárom)
- Púchov - Strelenka - (Olomouc)
- Čadca - Svrčinovec - (Ostrava)
- Nové Zámky/Palárikovo - Levice - Zvolen - Lučenec – Košice with main railway junction point in Zvolen.

National level - combined transport

The Conception of Development of Combined Transport was adopted by a resolution of the government of the Slovak Republic. The development of combined transport depends on forecasts of the development of the economy and estimated merchandise flows suitable for combined transport. After the accession of Slovakia to the European Union, the Conception was updated and the conditions of combined transport operation in Slovakia were harmonized with the situation in EU. The attraction zone of intermodal transport terminal of the European level has been changed to 150 km. Under these conditions, the Conception defined the construction of four intermodal transport terminals of international importance in Bratislava, Žilina, Košice and Zvolen – Budča. Simultaneously, the network of basic public intermodal transport terminals was extended by the terminal Leopoldov situated in the cadastral area of Hlohovec. The localization of basic public intermodal transport terminals will thus better copy the exactly documented structure of transportation-gravitational regions and the distribution of important sources and destinations of intermodal transport within the territory.

National level – air transport infrastructure

In accordance with the Conception of Development of Air Transport adopted by the government of the Slovak Republic the airports in Bratislava, Košice, Poprad-Tatry, Sliač, Piešťany and Žilina are defined as international airports. These create the main network of airports of the Slovak Republic. The airports in Bratislava and Košice are airports of strategic importance and together with the airport Poprad-Tatry are included in the TEN-T network.

National level – water transport infrastructure

The Conception of Development of Water transportation approved by the government of the Slovak Republic contains plans for routing of decisive trans-European waterways through the territory of Slovakia. In addition to the position of Slovakia as a Danube country situated on the waterway E80, this plan is to be implemented through inclusion of the Váh waterway in the category of main waterways as a part of E81 with interconnection to the Oder. The effectiveness of connecting the Váh waterway with the Oder is conditioned by the central north-south European transit North Sea/Baltic Sea – Black Sea. The conception also envisages to canalize the lower flow of the Nitra, Hron and Ipeľ rivers after the completion of the complex of waterworks on the Danube river in the part Budapest – Vienna. The canalization

of the Tisa river in the territory of Hungary and Serbia depends on the canalization of the eastern Slovak rivers Bodrog, Laborec and Latorica (the proposal for their canalization must take into account the requirements of the protection of nature).

Resolutions of the government of the Slovak Republic dealing with the development of public ports in Bratislava, Komárno and Štúrovo have direct influence on the water transport infrastructure.

13.2 Transportation regionalization of the territory of Slovakia

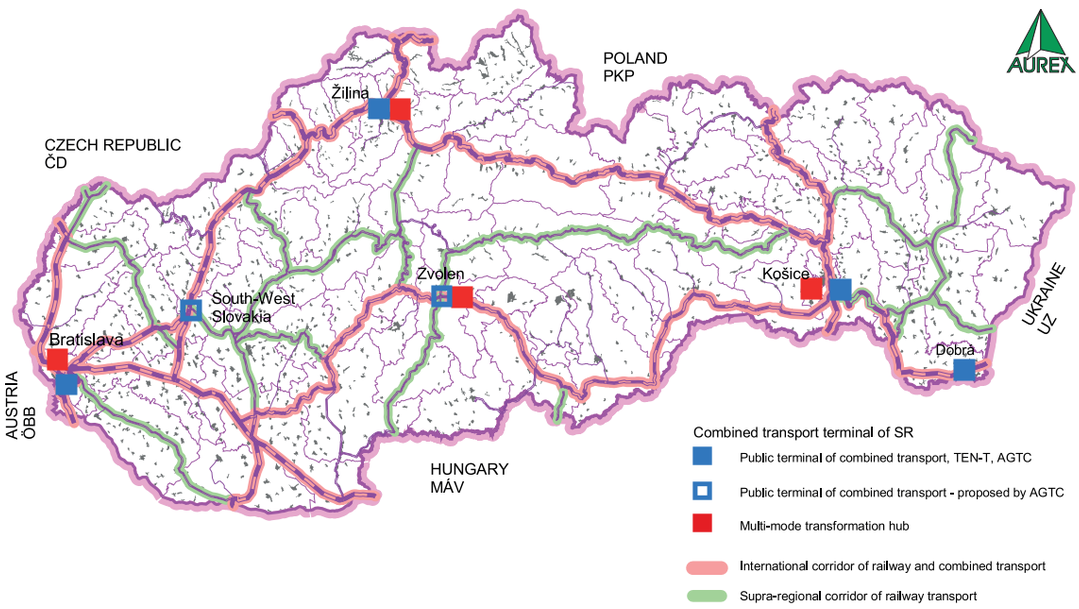
The transportation - settlement structure of Slovak towns has the following hierarchy:

- Bratislava, localization of functions at the first level (the capital city and metropolitan area of the country) with a regional functional effect upon the territory of south-west Slovakia,
- Bratislava, Žilina/Martin, Zvolen/Banská Bystrica, Košice/Prešov with localization of at least supra-regional transportation infrastructure and civic infrastructure at the supra-regional level. Transportation zoning draws upon the assumption that Bratislava and Košice are transportation centers of the two – presently confirmed, but from the future point of view, overcome – transportation-gravitational areas of Slovakia. The transportation-gravitational sub-centers Žilina and Zvolen together with the Martin and Banská Bystrica settlements reached the level of centers that represent stabilized transportation-gravitational areas. The position of Košice is currently closely connected with Prešov, which enables the agglomeration to develop as a center of the Carpathian region. Bratislava, with regard to its attractive transportation location, will continue to be a dominant gravitational area in the south-west part of Slovakia and simultaneously it will be necessary to distinguish it from the territorial point of view from the south-west part of Slovakia with Nitra/Trnava as its center.

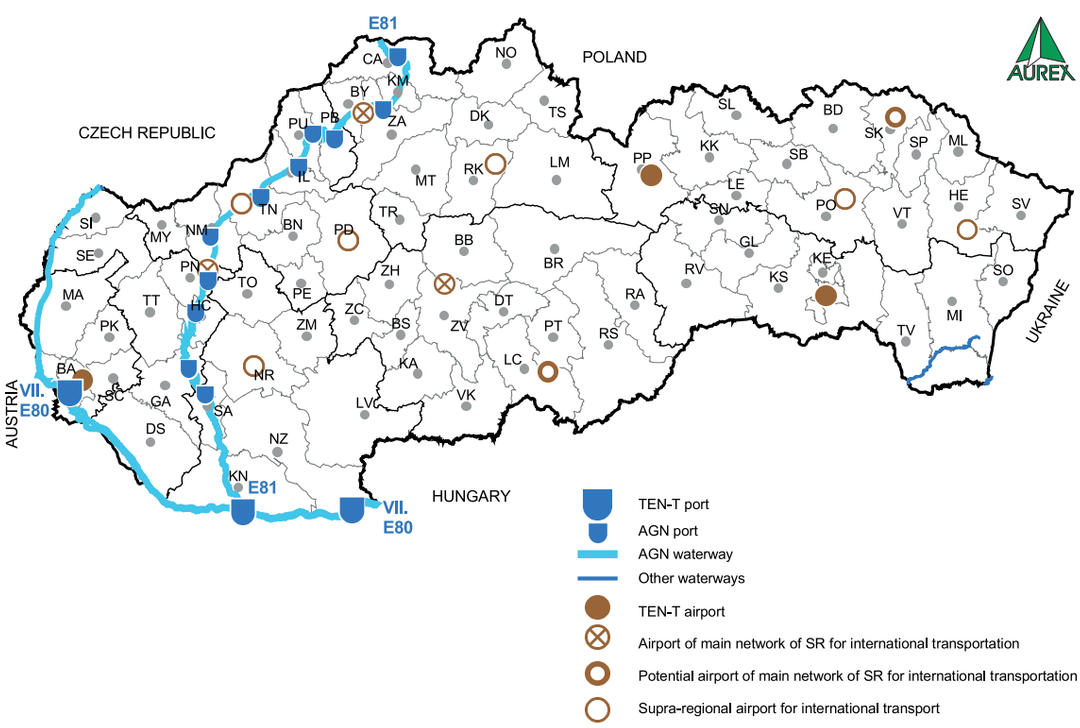
The basic transportation and regional zoning of Slovakia at the second level is stabilized in the following structure:

- Bratislava (approximately the present Bratislava region),
- South-west Slovakia or the Danube region (approximately the present Trnava and Nitra regions) with the Nitra/Trnava gravitation center,
- North-west Slovakia or the Považie region (approximately the present Trenčín and Žilina regions) with the Žilina/Martin gravitation center,
- Central Slovakia or the Pohronie-Ipeľ region (approximately the present Banská Bystrica region) with the Banská Bystrica/Zvolen gravitation center,
- East Slovakia or the Eastern Slovakia region (approximately the present Košice and Prešov regions) with the Košice/Prešov gravitation center.

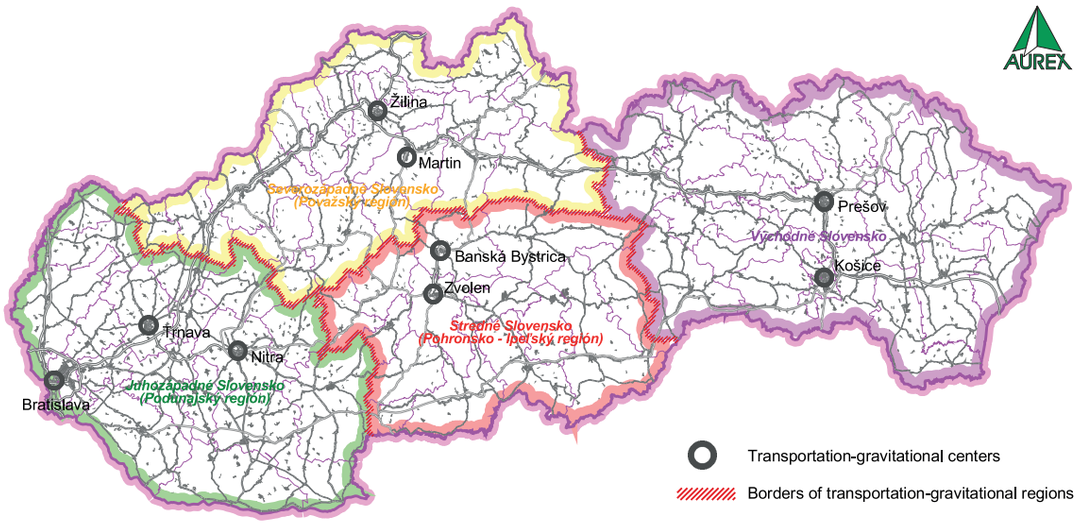
Corridors of railway and combined transportation network of the Slovak Republic



Superior air and water transportation network of the Slovak Republic



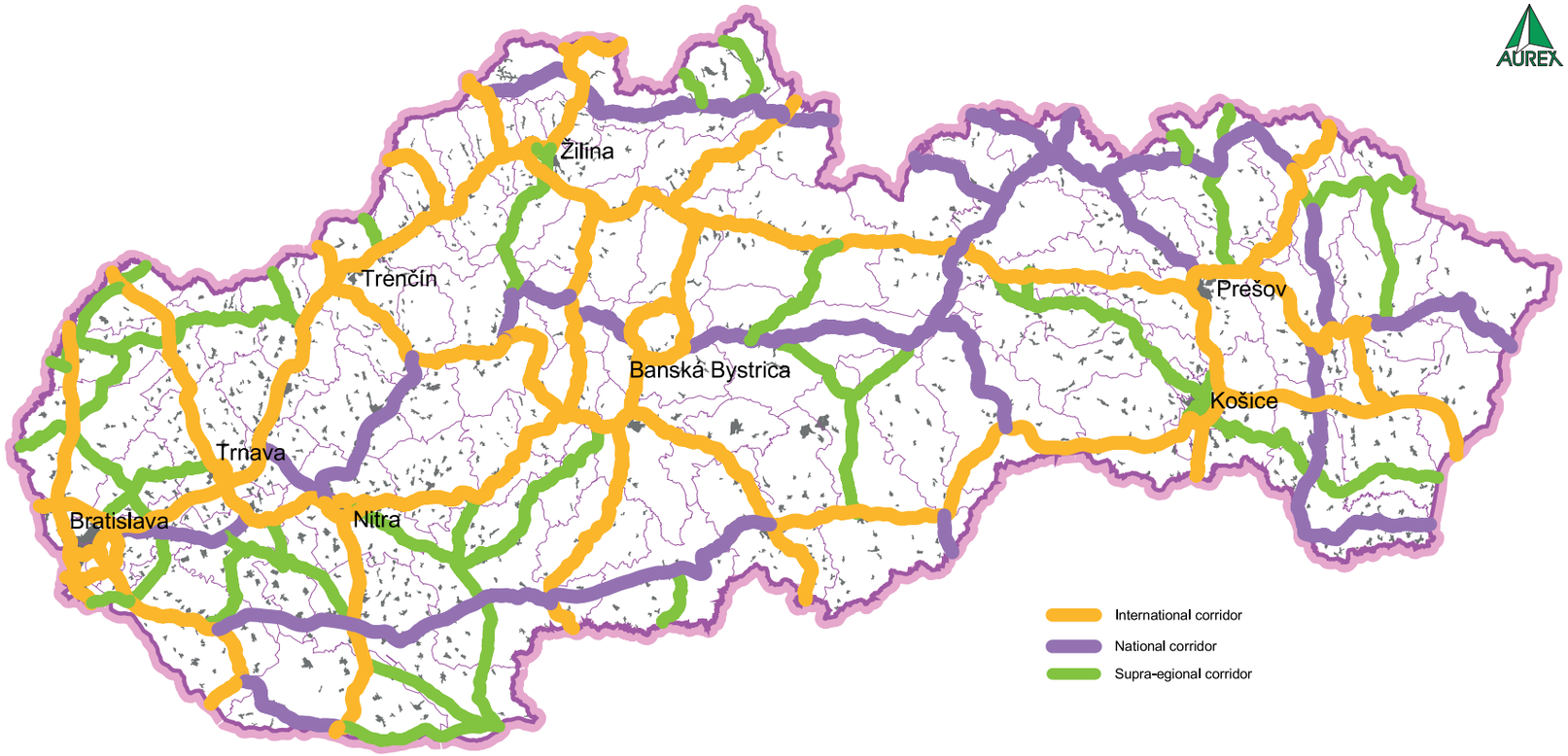
Transport regionalization of the territory of the Slovak Republic



13.3 Transportation corridors within the Slovak Spatial Development Perspective

The Slovak Spatial Development Perspective reacts to the return to the natural transportation regionalization of Slovakia by means of homogenizing the necessary international and national transportation links. The emphasis put on the polycentric development of territories requires the creation of favorable conditions for equal interconnections of all regions of Slovakia. The Slovak Spatial Development Perspective defines the routing and division of transportation corridors into hierarchic levels from the point of view of spatial development and promotion of development of individual settlement structures regardless of the existing and planned categorization of roads. It especially underlines the importance of interconnections between settlements in the interest of creation of favorable conditions for the polycentric concept of settlement structures at the international, national and supra-regional levels. Transportation corridors are divided into transportation corridors of international, national and supra-regional importance. The transportation corridors marked in the graphic part, drawing Transport Infrastructure, show the importance of a corridor in terms of settlement relations, which does not correspond to the hierarchy of roads set out in the Road Act. Simultaneously, the categorization of transportation corridors may differ from the categorization of development axes.

Corridors of the road network of the Slovak Republic



14 Spatial development of the Slovak Republic and development of technical infrastructure

14.1 Water management infrastructure and spatial development of Slovakia

The present water management policy of SR is formulated as a set of principles and methods of practical use of efficient supporting and limiting instruments and measures for water conservation and management.

The Water Plan of Slovakia is the first output of the implementation process in the introduction of common water policy of the EU Member States in the Slovak Republic in accordance with the Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the area of water policy.

The implementation of the water management policy and the Water Plan o f Slovakia is supported by other adopted acts (on waters, on public water supply and on public sewage systems, on regulation in network industries, on flood control, etc.).

Development of surface water resources

Although at some flows there are areas with a passive or tense water balance, the construction of new water supply resources stagnates. Only the implementation of the water reservoir Slatina in the Hron river basin is under preparation.

Based on the water management balance, the following sections of flows are passive: the river Nitra below Topoľčany up to the outfall of the river Žitava under Vráble, including the cutoff beds of the Nitra and the Žitava, the rivers Hron and Perec below Kozmálovce up to the outfall, the river Ipeľ from Mula to the outfall. The following sections of flows have a tense water balance: river Moravia in the section from Skalica to the outfall of Dyje, rivers Myjava and Malina, in the whole section of Bebrava, river Hron in the section Podbrezová - Kozmálovce, the whole basin of the rivers Slaná and Bodva, and the river Laborec from Humenné to Michalovce. These sections of flows can be regulated in the future by construction of surface water resources – reservoirs.

Because of the prospective demand for more water resources to supply the deficit areas with drinking water, it is recommendable to continue the preparation of selected water reservoirs - VD Slatinka, VN Tichý Potok, VN Hronček, and VN Garajky.

Development of groundwater resources

The territory of the Slovak Republic is quite well examined from the hydro-geological point of view, and it is not expected that in the future we will find more significant groundwater resources suitable for the mass supply of the population with drinking water.

The resources with lower yields have local importance and can be used for supplying smaller settlements. In order to supply towns and bigger territorial units, it will be necessary to concentrate on the development of water supply systems, especially on the effective and

rational use of the existing capacity of water resources in accordance with the principles of the protection of water ecosystems.

For further development of groundwater resources it will be necessary:

- To implement a detailed hydro-geological survey oriented to passive areas in accordance with requirements for the development of public water supply systems
- To prepare proposals for the use of small water resources for local drinking water supply,
- To draw up forecast of the development of balance of groundwater resources,
- To ensure more effective use of interaction of groundwater and surface waters,
- To revise and if appropriate remove unsuitable and risky water resources from the water management system and to prepare replacement water resources with sufficient capacity,
- To prepare an integrated system of environmentally suitable management of water resources, including water ecosystems,
- To implement plans for the protection of wetlands,
- To provide sufficient water resources for satisfaction of the future needs.

Development of public water mains

In order to supply the population with drinking water from the public water mains we suggest the following to be done:

- To increase the number of inhabitants who are supplied from the public water mains in order to gradually reach the level of developed EU countries,
- To increase the use of capacities of the existing big drinking water resources by accelerating the construction of water feeds and water networks in the areas of these resources,
- To increase the supply of the southern districts of the Banská Bystrica region by developing public water mains based on the existing big surface drinking water resources,
- To develop public water mains in the eastern Slovakia region, which is one of the most underdeveloped regions in the Slovak Republic in terms of the drinking water supply, to focus on more effective use of the Starina water reservoir and on the use of suitable local resources for supplying of smaller distant settlements,
- To provide for further development of the North Slovakia Water System,
- To implement the interconnection of the Western Slovakia Water System and the Central Slovakia Water System,
- To prepare for the construction of water resources in order to supply the deficit areas and areas with endangered quality of water,
- To increase the reliability of supplying the population with drinking water by constructing water dispatch centers, using the compensation cooperation of water resources, and extending the diversification of water resources,
- To increase the technical level of production and distribution of water and the technical level of water treatment plants,
- To implement measures for reduction of water losses.

Development of public sewage systems

In order to provide for the disposal of liquid waste the National Program of the Slovak Republic for the implementation of the Council Directive 91/271/EEC, as amended by the Commission Directive 98/15/EC and of the Regulation 1882/2003/EC of the European Parliament and of the Council was drawn up. This program envisages the intensification of 150 waste water treatment plants, construction of 47 new waste water treatment plants and completion of public sewage systems in 277 communities by the year 2015.

For the achievement of the objectives of the Framework Directive 2000/60/EC it is necessary to provide for waste water disposal and treatment in further communities in accordance with the Plan of Development of Public Water Mains and Public Sewage Systems for the Territory of the Slovak Republic.

Water flows

The adjustment of flows must be used to alleviate flood damage and to optimally adjust the water regime in the basins of the Moravia, Myjava, in the upper part of Váh – and especially for its tributaries, the Hron and the Ipeľ. It is also necessary to increase the protection of some dammed parts of rivers in the Eastern Slovakia Lowlands (Uh, Laborec, Latorica and Trnávka), to finish the protection of Košice and to complete the anti-flood works below Košice as well as to adjust the Torysa and the Poprad in critical parts.

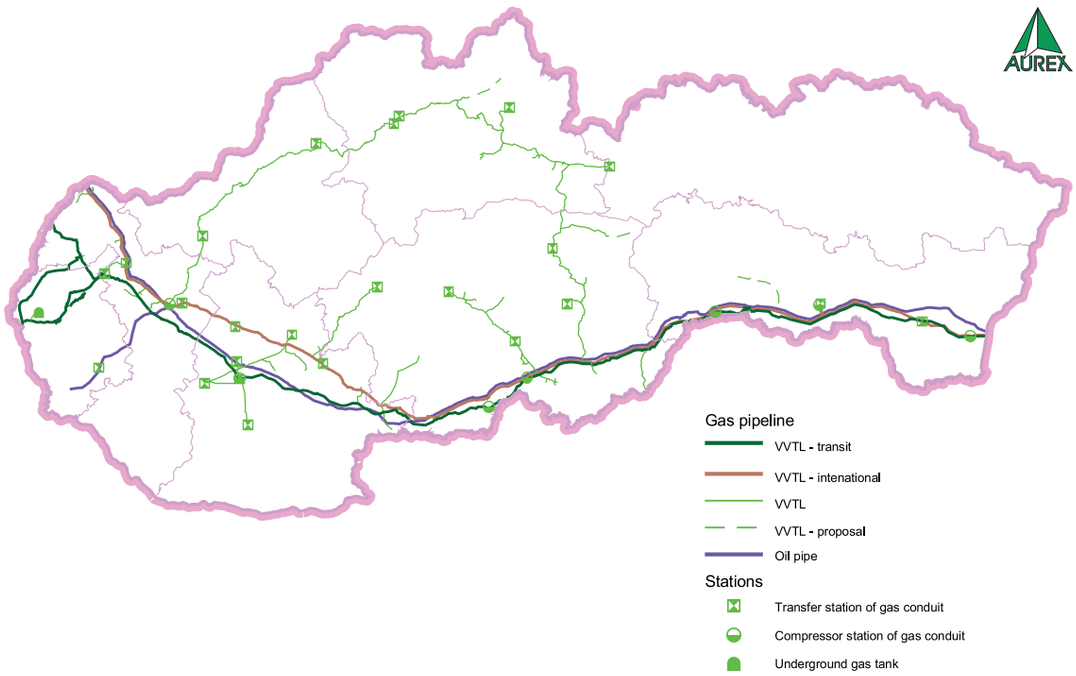
14.2 Energy infrastructure and spatial development of Slovakia

Slovakia plays an important role in the European energy trade. Its unique location on the transit route of Russian gas to western European markets is very important for many European countries. We can expect that the importance of Slovakia with regards to its location will grow in the common European electricity market. The situation is complicated by the fact that Slovakia is heavily dependent on energy imports and has a low import diversification. Another important fact is that the Slovak Republic must import approximately 90% of fuel energy resources. The only domestic resources of Slovakia are grown coal, electricity, and small quantities of extracted gas and oil.

The energy policy of the Slovak Republic defines three objectives for the development of electrical engineering, heat-power engineering, gas industry, oil extraction, processing and transport, coal mining and use of renewable resources:

1. To provide for effective, safe and reliable supply of all forms of energy in the required quantity and quality;
2. To decrease the share of gross domestic consumption of energy on the gross domestic product – to reduce the energy intensity;
3. To provide for such volume of electricity production that will satisfy the demand on the economically effective principle.

Gas pipes network



Natural gas

Slovenský plynárenský priemysel, a.s. (SPP, a.s.) is the monopoly transporter and distributor of natural gas in SR. SPP is the operator of a high-pressure pipeline system and a local distribution network.

Exhausted oil and gas deposits, especially in the area of the Vienna Basin, are used for the construction of underground gas storages.

Slovakia plays an important role in the transit of natural gas. The Slovak Republic provides for international gas transportation in the east – west direction from Russia to many European countries. The Slovak transit system is interconnected with major European transportation systems and provides reliable services to important gas companies (Gazprom, VNG, Wintershall, Ruhrgas, Gaz de France, SNAM, and OMV). Slovakia, after Ukraine, is the second biggest transit country in the world.

Almost 90% of the population has currently access to natural gas. About 63% of the communities have been provided with gas in Slovakia.

Crude oil

Crude oil processed in the territory of Slovakia is imported predominantly from Russia. Domestic oil production account for 2% of total oil consumption of Slovakia.

Transpetrol, a. s. Bratislava is the monopoly transporter of crude oil. Ninety-nine percent of crude oil is transported through Ropovod Družba (the Družba Pipeline) for processing purposes.

In accordance with the EU guidelines, it is necessary for the Slovak Republic to create supplies of crude oil and oil products at a volume of 90 days worth of consumption of the last year. In order to carry out this task, it will be necessary to complete and reconstruct some of the storage capacities.

Electricity

The share of final electricity consumption on total energy consumption of Slovakia is relatively low and represented 20.7% in 2005. It is expected to increase to 22.8% by the year 2030.

The following table shows forecast of development of electricity consumption in Slovakia[8]

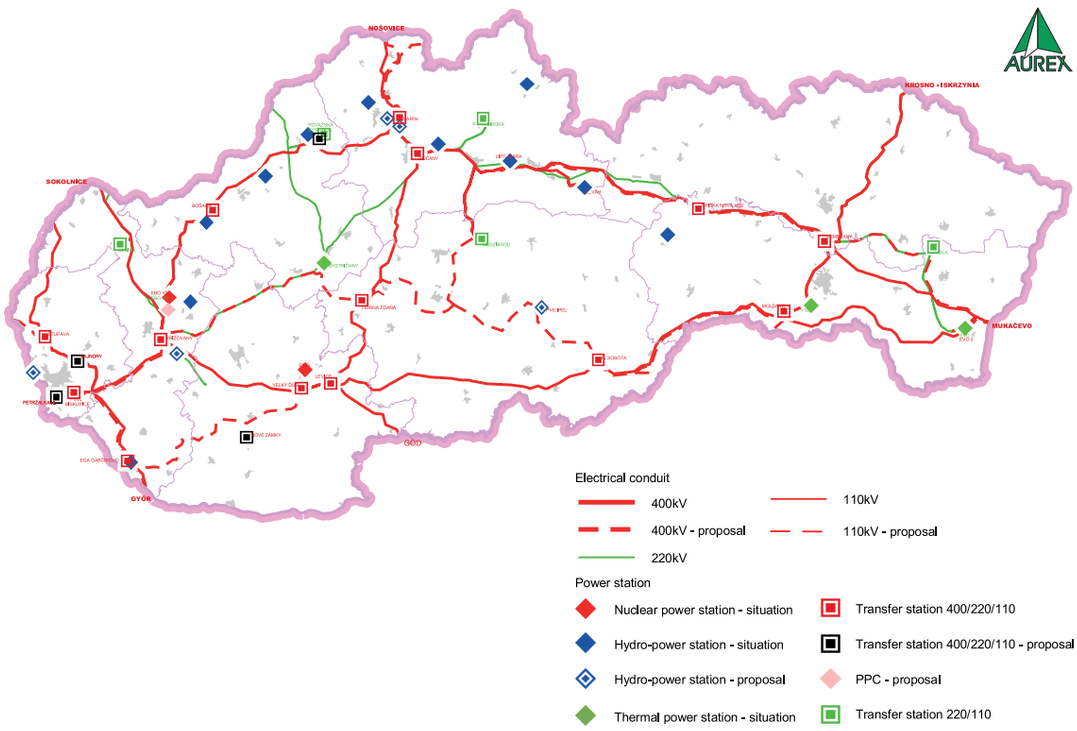
		2005	2006	2007	2010	2015	2020	2025	2030
Low scenario	TWh	28,5	29,6	29,6	30,4	32,0	33,3	34,6	36,0
Reference scenario	TWh	28,5	29,6	29,6	31,9	34,7	37,5	40,4	43,1
High scenario	TWh	28,5	29,6	29,6	32,8	37,1	41,5	46,0	50,5
Average annual growth	%	3,7		0					
Low scenario	%								0,8
Reference scenario	%								1,6
High scenario	%								2,3

All the scenarios envisage a growth of the economy with decreasing energy intensity.

The strategic objective is to achieve balanced domestic consumption and production of electricity, which is represented by the reference scenario. The long-term strategy is to maintain the balance between consumption and resources. The consumption will be increased and old capacities will be replaced so as to achieve an adequate and balanced development of new capacities between the nuclear fuel cycle and the fossil fuel cycle.

8 *Taken from the "Draft Strategy of Energy Security of the Slovak Republic – new amended wording", www.economy.gov.sk*

Electrical conduit



Power engineering and spatial development of Slovakia

Projected development in power engineering will have an impact on the functional use of the territory of the Slovak Republic. The most important issues are as follows:

- The high intensity of area gasification of Slovakia is favorable, especially due to ecological reasons (especially where gas replaces solid fuels). However, gasification slows down the use of local energy resources. Taking into account the social situation of the population, the further use of gas will also depend on the price development of this commodity.
- It will be important from the territorial point of view to connect the Slovak Republic to further transit pipelines abroad and to build other gas reservoirs necessary for balancing the seasonal differences in gas consumption and commercial purposes (services for foreign customers).
- It will be necessary to build storage capacities for emergency crude oil supplies of the volume of 90 days worth of the last year´s consumption until the year 2008 and to solve the issue regarding the supply of the Slovak Republic with crude oil.
- As far as the liberalization of power engineering is concerned, along with the associated opening of the electricity market inside and outside the country, it will be necessary to complete the domestic electrical lines and to construct other international networks.
- With regards of the heating industry, it will be necessary to innovate and change the existing central heating system. So far there have been no incentives for the definitive support of cogeneration electricity production in Slovakia.
- The renewable and secondary energy resources will especially be of local importance for Slovakia as supplementary resources of system power engineering.

15 Binding part of the Slovak Spatial Development Perspective

The binding part of the Slovak Spatial Development Perspective includes concrete plans and objectives that create the basic conception of spatial issues regarding the development of the society of the Slovak Republic in the national and international context.

The regulations in the binding part express the objectives of creating space at the national level, taking into account the international context, in the form of selected material issues and principles, or conditions of their further development. Their classification corresponds with the classification of the sections of facultative text and includes regulations in the following fields:

1. International issues regarding the organization of the territory, settlement and development of the settlement structure
2. National and supra-regional issues regarding the organization of the territory, settlement and development of the settlement structures
3. Development of rural areas and the relationships between the town and the countryside
4. Preservation, improvement and use of cultural heritage
5. Organization of the territory taking into account environmental aspects, protection of nature, protection of natural resources and creation of landscape structure
6. Economic and regional development
7. Agricultural production and forest management
8. Industry and construction industry
9. Development of recreation and tourism
10. Development of social infrastructure
11. Development of superior transportation infrastructure
12. Development of superior technical infrastructure.

16 Application of the Slovak Spatial Development Perspective

The Slovak Spatial Development Perspective can be especially applies to the field of territorial planning, where its binding parts, in accordance with legal regulations, are directly applied to the subsequent territorial planning documents as well as to other planning document with spatial consequences monitored at the national and regional level.

Further, the Slovak Spatial Development Perspective should serve as a long-term strategy for the development of mid-term and short-term documents for management of spatial development. In this field the Perspective is directly connected to the preparation of financial plans represented by regional policy documents – national plan of regional development, program of economic and social development of a region, or a community development program, as well as sector plans. At present, this connection to regional policy documents and sector plans is being formed and mutual issues and connections to legislation, coordination and communication are being identified.

Finally, the Slovak Spatial Development Perspective can be used as a "discussion basis". At present, this field has not been fully developed within planning and governing mechanisms. The main point is that the Slovak Spatial Development Perspective is an open, indicative document ad as such it must be creatively applied to governing and planning practice. A national territorial planning document does not solve and cannot solve all issues and details and therefore it contains only basic directions for spatial development that are developed in more detail in other territorial planning documents, sector plans and decisions.

The Slovak Spatial Development Perspective is a basic coordination and communication tool that has the ability for feedback and other development tendencies.