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## The central regions and the Sofia agglomeration area

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Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

## **THE CENTRAL REGIONS AND THE SOFIA AGGLOMERATION AREA**

**Abstract.** The research presents central regions in Bulgaria using taxonomic method with relevant conclusions. Each municipality in central regions is particularly examined by the elaborated methodic materials. The developed agglomeration areas are situated in the central regions. Sofia agglomeration area is presented using General Spatial Plan of Sofia municipality and Municipal Development Plan (MDP) of Sofia metropolitan municipality. It is set out the vision of development and its priorities, objectives and measures.

**Key words:** central regions, agglomeration areas, Sofia agglomeration area, General Spatial Plan, Municipal Development Plan.

### **Introduction**

The Central regions comprise 45 percent of the Bulgarian territory. The agglomeration areas are formed in them. The present study examines the development of the Sofia agglomeration area – a metropolis in the central regions of Bulgaria. The agglomeration areas are formed within the range of the central regions in Bulgaria – 6 agglomeration areas with a center – a large city, 30 agglomeration areas with a center – a medium-sized town. Six of the agglomeration areas are formations with more than three municipalities, five of them are with three municipalities each, ten are with 2 municipalities and the rest 15 are autonomous municipalities with an established core. These areas represent the backbone of the economy and social and human potential of the country. They have the highest degree of competitiveness and attractiveness for investment and innovation.

Eighty eight municipalities with a total population of 5885455 people<sup>1</sup> are included within the scope of the agglomeration areas, which constitutes 77.4 percent of the population of the country. The differences between the municipalities are in the range from 1247050 for the Sofia Municipality, 347400 for Plovdiv and 326528 for Varna, to 6546 for Kuklen. One fifth of the population of the agglomeration areas is on the territory of the Sofia Municipality and together with the other two municipalities with large urban centers (Plovdiv and Varna), this share becomes 32.6 percent.

The settlements falling within the territory of the agglomeration areas are 2299 – 43.4% of all settlements in the country. The concentration of the population in the towns of the agglomeration areas is 79.6% and in the villages – 20.4%, the average for the country being respectively 71.1% for the towns and 29.9% – for the villages. The equivalent values for the urban and rural population in the agglomeration areas and for the country show that the greater part (87%) of the urban population of Bulgaria falls within the agglomeration areas.

The population decreased gradually between the last two censuses (1992-2001), which continues at present too. In the period 2001-2008 the population of the municipalities of the agglomeration areas was reduced by 124 thousand people or with an average annual rate of -0.3%, the average rate for the country being -0.5%. Against the background of the general reduction, a part of the municipalities in the areas exhibit positive growth. The natural reproduction of the population is realized with decreasing negative natural growth. In the years 2001-2008 the natural growth of the population of the agglomeration areas is -4.5‰ and -3.0‰ (with average for the country -5.6‰ and -4.3‰). The changes in the natural growth are determined by the higher birth-rate – both of the absolute number of the new-born (by 9.5 thousand people) and of the fertility coefficient too (from 8.7‰ to 10.5‰).

The level of unemployment in the municipalities of the agglomeration areas (annual average of 5.43%<sup>2</sup> for 2009) is 1.4 times lower than the average value for the country (7.59%). For comparison – the average annual level of unemployment in EU-27 is 7.13%, and in the Eurozone – 7.42%.

According to data from the census the share of the people with higher university and higher college education amounts to 16.5% of the population at the age of 7 years and older, included in the scope of the agglomeration areas, which exceeds the average level for the country (14.1%). There are significant differences for the single municipalities. The Sofia Municipality, respectively the Sofia City, are outlined with the higher share of people with higher education (23.1% with higher university and 5.8% with higher college education) – significantly exceeding the average level for the country and the municipalities in the agglomeration areas.

The agglomeration areas represent territories with the highest degree of completion of the technical, social and production infrastructure and with the highest possibilities for emergence of innovation and technology transfer.

### **Research method**

All agglomeration areas in the country are investigated using the taxonomic method. They are ranged according to their potential – natural, human, anthropogenic, degree of achieved level of development – economic, social, level of viability, vulnerability, competitiveness and attractiveness for innovation and investment.

The level of development of the municipalities in the agglomeration areas in the central regions of the country for 2007 is investigated on the basis of the following generalized measures and single assessments:

**X<sub>1</sub>** – a generalized measure of **economic status**, formed on the basis of the indicators:

1. income tax of physical persons per one inhabitant;
2. relative share of employed persons in industry;
3. net revenues from sales per one inhabitant.

**X<sub>2</sub>** – a generalized measure of **social status**, formed on the basis of the indicators:

1. social aids per one inhabitant;
2. average salary;
3. number of doctors per 1000 persons;

4. number of dentists per 1000 persons;
5. relative share of the population with water supply regime;
6. water consumption per capita (l/h/day);
7. average number of persons per 1 dwelling.

**X<sub>3</sub>** – a generalized measure of the **construction of technical infrastructure**, formed on the basis of the indicators:

1. relative share of the territory for transport infrastructure;
2. density of road network;
3. relative share of the population connected to public water supply;
4. relative share of the population connected to public sewerage systems;
5. degree of railway network construction (+, -);
6. airport construction (+, -);
7. port construction (+, -);
8. duty free zone construction (+, -).

**X<sub>4</sub>** – a generalized measure of the **territory potential**, formed on the basis of the indicators:

#### **X<sub>4.1</sub>. Natural potential**

1. total territory;
2. relative share of agricultural territories;
3. relative share of forest territories;
4. relative share of watercourses and water basins;

#### **X<sub>4.2</sub>. Human potential**

1. relative share of population under working age;
2. relative share of the active population (at working age);
3. relative share of the population with university, college and secondary specialized education;

#### **X<sub>4.3</sub>. Anthropogenic potential**

1. relative share of the territory for transport infrastructure;
2. useful residential area per 1 inhabitant;
3. dwellings per 1000 inhabitants;
4. construction of educational objects – quality indicators (a, b, c, d);
5. construction of cultural objects – quality indicators (a, b, c, d);
6. construction of health care objects – quality indicators (a, b, c, d).

**X<sub>5</sub>** – a generalized measure for the **viability of the territory**, formed on the basis of the indicators:

1. relative share of population under working age;
2. dwellings in exploitation per 1000 inhabitants;
3. relative share of urbanized territories;
4. number of unemployed per one free workplace (FWP);
5. land market – number of concluded transactions for purchase of agricultural land (fields, pastures/meadows, permanent crops, vineyards, farm yards, forests, etc.).

$X_6$  – a generalized measure for **vulnerability of the territory**, formed on the basis of the indicators:

1. persons convicted of crimes per 1000 inhabitants;
2. relative share of persons over working age;
3. average number of persons per 1 dwelling;
4. level of unemployment (%);
5. level of unemployment of population under 29 (%);
6. relative share of unemployed for more than 1 year (%).

The most often used indicators are in different measurement units and they are standardized (normalized) in order to transform them into a comparable form.

The essence of the applied taxonomic approach consists in the following:

- each municipality is characterized by a set (system) of indicators and is considered as a multi-dimensional object;
- all indicators are standardized and thus transformed into unnamed comparable quantities;
- all municipalities are represented as points in  $n$ -dimensional Euclidean space, where the number of used indicators is designated by  $n$ ;
- the comparison is made with respect to a fictitious municipality, characterized by extreme (maximum or minimum) values of the single indicators;
- the level of development of a particular municipality is evaluated in terms of its distance to the bogus and comparison and ranking are made on this basis. The smaller is this distance, i.e. the closer is the municipality to the fictitious one, the higher is its level of development and vice versa.

The consideration of the extreme values and the respective differences  $d_{\max} - d_{\min}$ , if investigation of subsequent years or periods is carried out, reveals the trends in municipal development towards decreasing or increasing the discrepancies in their development. If the difference increases, they diverge in their development and on the contrary, if the difference decreases, they move closer in their development.

Other three features may also be discussed here, which are measured by quality indicators using a method for obtaining complex estimates by means of qualitative characteristics: degree of seismicity; fire risk; flood risk. The central regions fall within the zones with high degree of seismicity and the zones with the highest density of forest fires for the period 1994-2006. The best developed regions in the country are subjected to high natural hazards.

### **Analysis on the situation**

The Sofia-city district is identical to the Sofia Municipality (SM) with respect to territorial range. The Sofia district represents the halo of municipalities around the Sofia-city district or the Metropolitan Municipality. The Sofia agglomeration area includes the Sofia-city, Bozhurishte, Botevgrad, Elin Pelin, Kostinbrod and Samokov municipalities.

With respect to the achieved level of economic development the municipalities are ranked in the following manner: Sofia (rank 3), Botevgrad (rank 8), Kostinbrod (rank 9), Elin Pelin (rank 14), Bozhurishte (rank 17), Samokov (rank 32).

With respect to the achieved level of social development the municipalities are ranked in the following manner: Sofia (rank 1), Elin Pelin (rank 11), Botevgrad (rank 12), Kostinbrod (rank 15), Samokov (rank 17), Bozhurishte (rank 31).

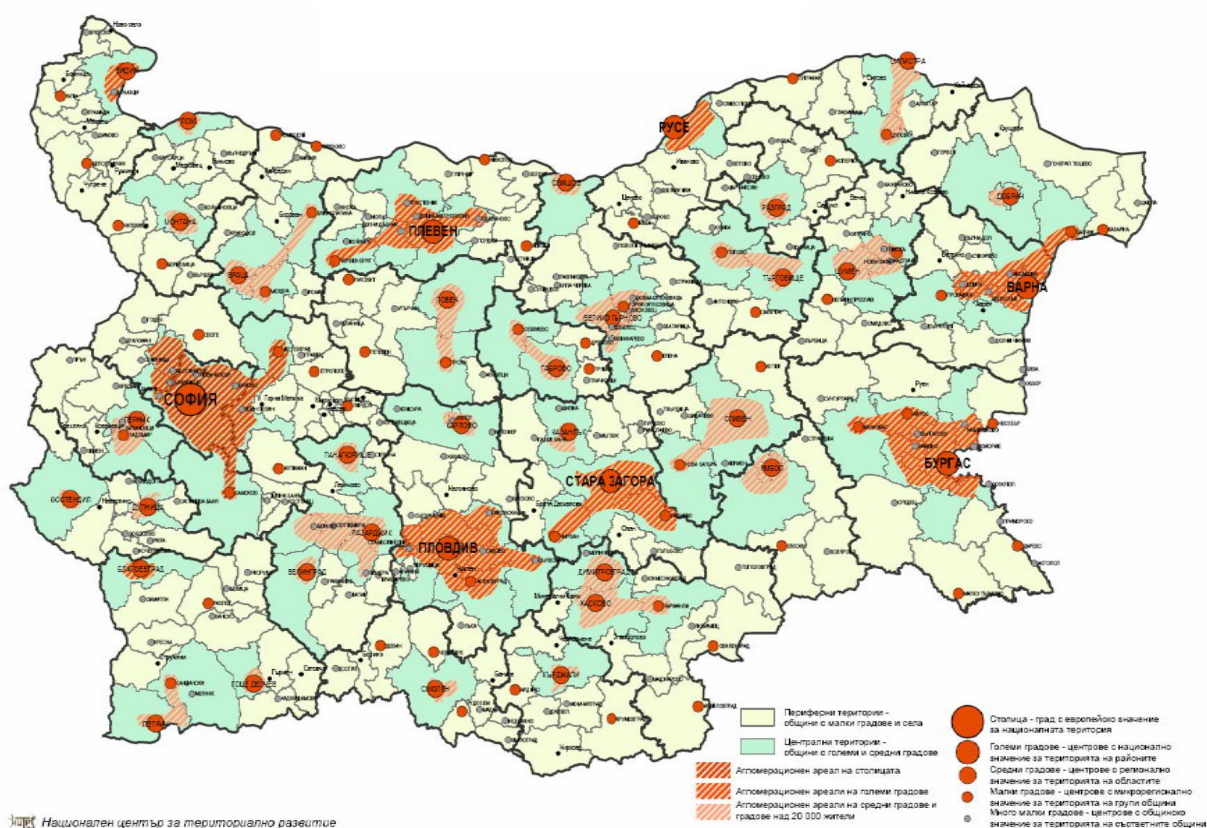


Fig. 1. Agglomeration areas of Bulgaria

With respect to the degree of infrastructure construction Bozhurishte is ranked before Sofia, namely Bozhurishte (rank 8), Sofia (rank 15), Botevgrad (rank 25), Kostinbrod (rank 33), Elin Pelin (rank 35), Samokov (rank 37).

Table 1. Generalized estimates of the municipalities in the Sofia agglomeration

No	Municipality	Economic status		Social status		Infrastructure		Natural potential		Human potential		Anthropogenic potential	
		Generalized estimate	Rank	Generalized estimate	Rank	Generalized estimate	Rank	Generalized estimate	Rank	Generalized estimate	Rank	Generalized estimate	Rank
1	Sofia-City	0,5776	3	0,5877	1	0,7613	15	0,6693	2	0,5845	7	0,7395	15
2	Bozhurishte	0,7413	17	0,8984	31	0,7291	8	0,9364	35	0,8487	32	0,3468	1
3	Botevgrad	0,6926	8	0,7772	12	0,8204	25	0,8124	23	0,5871	8	0,7148	14
4	Elin Pelin	0,7234	14	0,7629	11	0,9274	35	0,7831	15	0,8277	27	0,6993	12
5	Kostinbrod	0,6974	9	0,8003	15	0,8778	33	0,8727	33	0,8159	24	0,6332	4
6	Samokov	0,8227	32	0,8154	17	1,0083	37	0,7325	6	0,7117	16	0,6947	10

With respect to natural potential the ranking of the municipalities is as follows: Sofia (rank 2), Samokov (rank 6), Elin Pelin (rank 15), Botevgrad (rank 23), Kostinbrod (rank 33), Bozhurishte (rank 35).

The analysis of the anthropogenic potential yields the following result: Bozhurishte (rank 1), Kostinbrod (rank 4), Samokov (rank 10), Elin Pelin (rank 12), Botevgrad (rank 14), Sofia (rank 15).

No	Municipality	Potential natural human anthropogenic		Social-economic development		Viability		Vulnerability		Competitiveness	
		Integral estimate	Rank	Integral estimate	Rank	Generalized estimate	Rank	Integral estimate	Rank	Integral estimate	Rank
1	Sofia-City	0,5169	4	0,4283	3	0,8107	9	0,9132	36	0,5024	3
2	Bozhurishte	0,6469	13	0,7433	24	0,9239	31	0,8238	29	0,7025	16
3	Botevgrad	0,5695	9	0,6100	11	0,8770	21	0,7526	20	0,6633	12
4	Elin Pelin	0,6488	14	0,6307	14	0,9224	30	0,7470	19	0,7844	25
5	Kostinbrod	0,6583	15	0,6296	13	0,9010	27	0,7535	21	0,7435	23
6	Samokov	0,9449	6	0,7548	27	0,9395	34	0,5650	8	0,9017	33

With respect to total potential Sofia-City occupies rank 4, to social-economic development – rank 3, to viability – rank 9, to vulnerability – rank 34, and to competitiveness – rank 3. The municipalities included in the Sofia agglomeration area also occupy relatively front places in the ranking in the central regions, forming agglomeration areas with centers – big cities.

The Sofia agglomeration is the biggest and most developed one, which may be already affiliated to the Sofia metropolitan region according to the European classification.

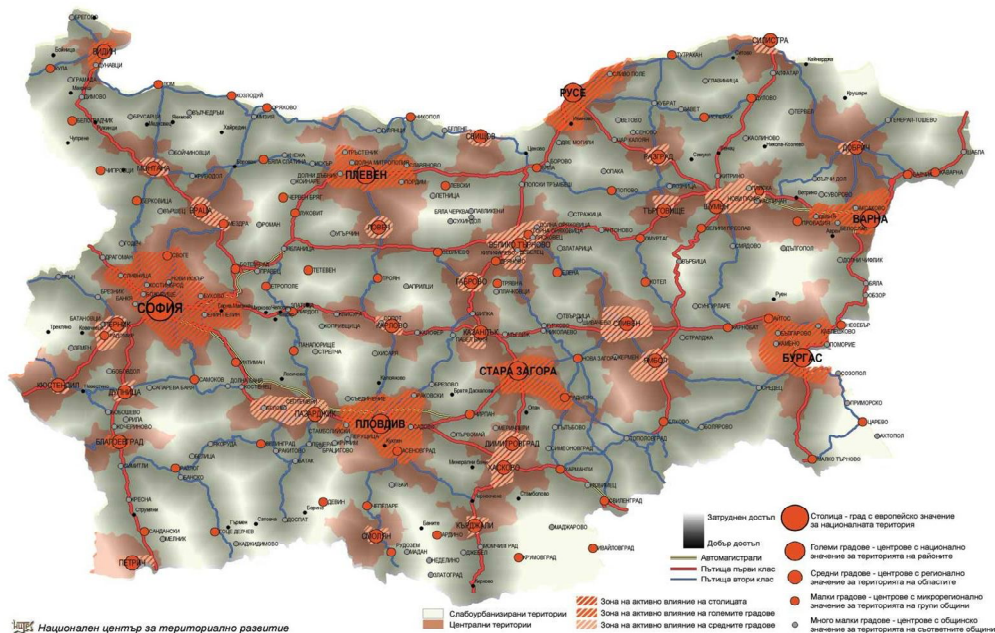


Fig. 2. Impact zones of the agglomeration areas

### Development plan of Sofia municipality 2007-2013

The plan for the development of the Sofia metropolitan municipality (Municipal Development Plan – MDP) is worked out on the basis of the Regional Development Act. The MDP composition proceeds in accordance with the methodological recommendations



of the Ministry of Regional Development and Public Works and the Sofia District (Metropolis) Development Strategy.

It is worth mentioning that Sofia district and Sofia municipality are within the same administrative-territorial boundaries. This determines to a great extent the range of targeting and the set priorities in the strategic part of MDP.

The Sofia Municipality Development Plan has been entirely updated.

The Municipal Development Plan is a document for management, which has to be periodically amended and updated in accordance with the specific conditions of the period till 2013. The plan structure is in conformity with the "Regional Development" Municipal Plan (RDMP) and provides possibilities for preparation of application documents for financial support from the EU funds.

### **Analysis of the status and development of the territorial social-economic complex of Sofia Municipality**

The Metropolitan Municipality with a center the Sofia City is situated in the Sofia field at an altitude of about 550 meters on a territory of 1348 sq. km, of which the settlements and urbanized territories occupy 267 sq. km, the agricultural lands – 613 sq. km, the forest areas – 358 sq. km, the territories for output of mineral resources (mining) – about 12 sq. km, the territories for transport and infrastructure – 18 sq. km, and the areas of watercourses and basins – about 43 sq. km. The landscape is diverse, the climate is relatively mild.

The municipality is a place with rich history and it is a center of the Bulgarian cultural life. Due to its beautiful parks, Sofia, which is also a district center and the capital of Bulgaria, has the reputation of a "green" city and because of its geographic situation and rich cultural heritage it represents a fascinating object of international and national tourism.

The settlement network is formed by 38 settlements, four of them being the four towns – Sofia, Bankya, Novi Iskar and Buhovo with total population of 1 231 622 people (2005), including 1 148 429 people in Sofia and 83 193 people in the zone surrounding the town. The number of the population in the zone of active impact of the Sofia-City and the surrounding district area (including 8 neighbouring municipalities) is about 103 000 people.

The capital – the Sofia City, plays an important role in transforming the municipality into the best developed in social-economic and infrastructural respect administrative-territorial unit in Bulgaria. This inference is supported by the most generalized parameters of the district social-economic complex:

- The largest amount of GDP in the country for 2007 is realized on the municipal territory – 11 393 million leva or 33.0% of the total for the country. The GDP (current prices) produced per capita of the population in the municipality (district) amounts to 9 733 leva, the average for the country being 4885 leva. According to this parameter the Sofia municipality (district) occupies the first place among the other 27 districts in Bulgaria. The GDP in 2007 per one actively employed person in the district is 19 652 leva (10 048 Euro);



- The sectoral structure of the Metropolitan social-economic complex shows that the leading functions in it belong to the tertiary sector (73.4% of the total GDP produced – 7 243 million leva, and 76.5% of the employed persons). The industry has retreated from its positions in the past and undergoes a process of major restructuring;
- The capital management and other service functions of the Sofia City are factors for the development of a significant tertiary sector, characterized by the existing large number of representative bodies of the legislative, executive and legal authorities, of the financial-crediting and business sector, etc.;
- The municipality and its center – the Sofia City, have traditions in the development of the university education. Almost half of the higher schools in Bulgaria (20 of the total 42 higher schools, with 91 184 students) are localized here. Sofia is the largest university center in Bulgaria with higher schools in almost all spheres of education and science;
- The capital city is the largest scientific center of Bulgaria with the located in it research institutes, scientific units and laboratories in the field of academic fundamental science, applied scientific research, etc. As of 2007, 12 318 persons, 4 892 of them being research workers, are employed in the institutes of the Bulgarian Academy of Sciences (BAS), the agrarian institutes and the numerous institutes for applied research;
- A broad network of cultural objects is built on the territory of the Sofia City, including: 23 theatres; 29 museums; 31 cinemas, 2 cinema centers of the Multiplex type (other 2 centers being under construction), 116 community library centers, etc. Many of these cultural sites are of national importance, making Sofia the largest cultural center in Bulgaria;
- The municipality and its zone of active impact are with strongly developed transport functions. The capital is the biggest and best developed complex transport center in the country. Most of the road and railway alignments in the Bulgaria – the Trakia and Hemus highways, the first-class roads E 80, E 871, E 79, etc., as well as the Sofia-Burgas, Sofia-Varna, Sofia-Kulata, Sofia-Vidin, Sofia-Kalotina and Sofia-Svilengrad railway lines start from here. The largest international airport in Bulgaria is also functioning here for the purposes of air transport.

The Metropolitan municipality is a unique intersection of four international transport destinations – the Intercontinental diagonal main line Northwest-Southeast (London – Budapest – Sofia – Istanbul – Calcutta), the meridional Euro-African main line (Helsinki – Moscow – Sofia – Thessaloniki – Cairo), the diagonal Euro-African main line (Tunisia – Durres – Sofia – Bucharest – Odessa – Omsk) and the formed at present transport corridor around the 40<sup>th</sup> parallel from the Caspian via the Black to the Adriatic Sea (Poti – Varna – Sofia – Skopje – Durres).

Three of the Trans-European transport corridors intersect on the territory of the Sofia district:

- Corridor No 4 – Budapest-Vidin-Sofia-Thessaloniki (Istanbul);
- Corridor No 8 – Durres-Skopje-Sofia-Burgas-Varna;
- Corridor No 10 – Belgrade-Sofia-Plovdiv-Istanbul.

The internal Balkan and national roads are also part of the Sofia crossroad. Sofia is the real urban, geographic and transport hub in the Balkans. Comparing the distances between the Balkan capitals and some major cities, as measured along the international roads passing through the region, it is seen that Sofia is characterized by the shortest average distance – 455 km, followed by Skopje – 523 km and Thessaloniki – 530 km. This represents an objective basis for the future development of the city and the other municipal territory as an important center not only in Bulgaria but also in the region of Southeast Europe.

Due to its strong economic impact and large demographic mass, the municipality and its center – Sofia, have an extremely developed field of influence, which is not observed in any of the other municipalities and cities across the country. The impact of Sofia and the metropolitan municipality includes both the zone of direct influence on 8 neighboring municipalities in the Sofia district and on the whole territory of the Southwest Planning Region.

In 2007, the structure of the employed persons (totally 625 363) in the municipal territorial-economic complex is as follows:

- Sector I – 1.5%
- Sector II – 22.0%
- Sector III – 76.5%.

The structure of the revenues of the functioning companies is respectively:

- Sector I – 0.3%
- Sector II – 24.9%
- Sector III – 77.8%.

The total number of homes, built in the municipality, is 523 141. The achieved standard is 430 dwellings per 1000 inhabitants (2.33 inhabitants per dwelling) and usable area of 27.75 m<sup>2</sup> per occupant. The standard set in the municipal plan is 35-40 m<sup>2</sup> per occupant. The major problem of the municipality is the renovation and public utilities of the building fund in the residential complexes and the territories inhabited by handicapped people.

The transport-communication system of the municipality is well developed. The density of the main street network is 2.53 km/km<sup>2</sup>. Its total length is 428 km. Regardless of this, the problems of the Sofia City are exacerbated by the rising level of motorization – in 1990 (the beginning of the social-economic changes in the country) it was 240 motor vehicles per 1000 inhabitants, and in the end of 2007 it reached 499.7 motor vehicles per 1000 inhabitants. This is a source of significant problems with traffic and parking in the city.

The Municipal Development Plan defines as priority aspects a number of activities for the development of the transport-communication system of the city and the surrounding region, the construction of the European transport corridors through the territory of the municipality and its zone of active impact. The activities are aimed at completing the internal transport ring, building the transport tangents, reconstructing the radial roads, building public parking lots, developing and improving public transport organization, etc. In this respect priority is given to completing first diameter of the tube and starting the second metro-diameter construction.

The airway transport is a key object of transport infrastructure, and it enters a qualitatively new stage of development after launching the new passenger terminal and the new 3 600 m long runway in the beginning of 2007. The current capacity of the Sofia airport is estimated to be 4 000 000 passengers annually.

SWOT analysis was formed on the grounds of the analytical part of the Municipal Development Plan as the basis for establishing the strategy for development in the period 2007-2013 taking into account the strengths and weaknesses of the municipality and the existing opportunities for development.

### **Strategy for development of Sofia municipality**

The formulation of the vision, objectives, priority axes and operations of the Municipal Development Plan 2007-2013 is based on the social-economic analysis of the municipalities and prospects for the membership of Bulgaria in EU. The strategic part of the Municipal Development Plan includes also specific priority axes and objectives, conformable to the operational programs and other strategic documents for the next programming period 2007-2013, relevant for the Metropolitan municipality.

The following specific features have been considered during the development of the strategic part:

- The Metropolitan municipality and the Sofia district are within one and the same administrative-territorial boundaries.
- The Sofia City is the capital of Bulgaria – with opportunities for development and acquiring important Euroregional functions in a dynamically developing economic-geographic region.
- The Sofia City is the administrative center of the Metropolitan municipality, Sofia district and the Southwest Planning Region.

#### **1. Vision for the development of the municipality**

The vision for the development of the Metropolitan Municipality presents the collective idea of the community for the future development of the municipality in a long-term period and the aspiration of the inhabitants to be part of this process:

“A city-region of significant importance in the polycentric structure of the EU, with balanced and sustainable development, with unique identity and harmonious living environment; a city-region with attractive conditions for business, residence and recreation, with a new type of economy, with effective management and executive authorities, which provide higher standard of living for the population”.

#### **2. Strategic objectives**

To attain the so formulated vision, the Metropolitan Municipality defines the following main strategic objective “Achieving rapid economic growth, higher living standard, sustainable and balanced development with preserving the natural and developing the urban environment”.



The main objective can be achieved by implementing the following strategic objectives:

**Strategic objective 1:** “Accelerated and sustainable economic growth and development of economy based on knowledge and information society for reaching the average level of development of similar administrative-territorial units in the EU”. The first strategic objective may be described as an objective of growth and sustainability, at the base of which is the increase of economic competitiveness within the range of the European regions (EU-27). This can be achieved by means of:

- Developing conditions for rapid uptake of innovation;
- Transfer, development and commercialization of high technologies;
- Raising the educational characteristics and professional structure of the workforce in conformity with the needs of the contemporary labor market;
- Developing and improving the quality of infrastructure serving the business and functional systems for living, working and recreation;
- Creating modern, complexly formed production-storage zones and nuclei, business and commercial service centers, etc.;
- Developing modern and environmentally friendly tourism industry, including sport infrastructure for holding European, world and Olympic competitions;
- Other conditions, affecting the attraction of investment and business initiatives in all spheres of economy. Urban marketing and the effective work and potential of the municipal administration are of special importance in this respect.

The maintenance of high economic growth is necessary for reaching the level of development of similar territorial structures in the EU. This objective sets a higher threshold than the average development of EU-27. The Metropolitan Municipality is close to that level. It is a standard and driver of the regional and economic development of Bulgaria, the Southwest Planning Region and Sofia District, and it has the potential to reach the parameters of economic and regional development, typical of EU regions with similar territory and population, having higher than the average levels of EU-27.

Maintaining the economic growth is necessary to reach the level of development of similar territorial entities in the EU. This goal sets a higher threshold of development than the EU-27. Sofia municipality is close to that level. It is standard and a driver of regional and economic development of Bulgaria, Southwest Region Planning and Sofia, and has the potential to reach the parameters of economic and regional development, typical of similar territory and population in areas of the EU which are in higher than average levels of EU-27.

**Strategic objective 2:** “Balanced and sustainable development through developing local potential”.

EU policy of balanced regional development of the territory of the union is based on the construction of a polycentric network of big cities and on formation of metropolis spaces that can stabilize the migration processes, stimulate the economic and social development, and balance the “center – periphery” ratio.



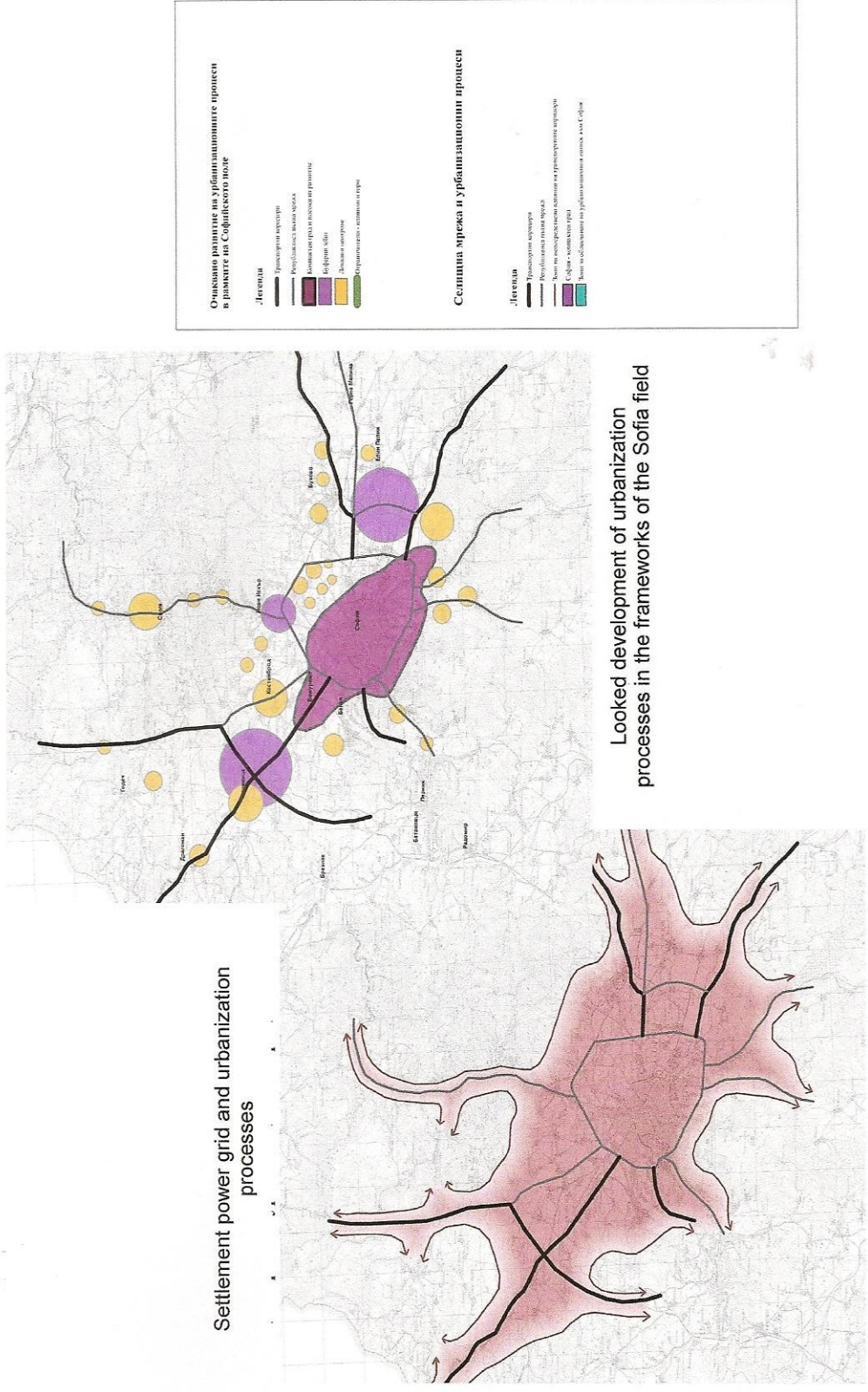


Fig. 4. A zone of live influence

The achievement of a territorial balance is a strategic task because of two reasons – the need for more regular development of the municipal territory and the chance for attracting resources for this purpose from the EU funds or other financial resources.

The second strategic objective is to overcome the weaknesses in the municipal development, namely the lack of balance in the development of the core (the Sofia City) and its hinterland (the area surrounding it). The attainment of the main and the other strategic objectives can be realized by using the potential of the surrounding area and ensuring conditions of living, services, leisure and business, which are equivalent to these in the core, as is the practice and situation in other similar EU regions.

The balanced development should spread beyond the municipality boundaries to the territory of the Sofia agglomeration, as envisaged in the strategy for regional development of the Sofia district for the period 2005-2015 and in the Regional Plan for Development of the Southwest Planning Region (2007-2013).

Heavy and uncontrolled migration to the core may place the Sofia City in a critical spatial and technical state, which can be an obstacle for achieving sustainability in the development of the municipality and the region as a whole. To overcome this danger, measures have to be undertaken for:

- Spatial development of the northern arc (in conformity with the General Development Plan of Sofia City and Sofia Municipality);
- Promoted development of the buffer production-storage zones on the agglomeration territory (the eastern part in the region of Elin Pelin – Ravno Pole and the western one in the region of Bozhurishte – Kostinbrod);
- Construction of the secondary complex service centers, situated along the external transport ring (the circular road).

The accomplishment of these and other measures requires stronger partnership between local and regional authorities, non-governmental sector and business, included within the range of the Metropolitan Municipality and Sofia agglomeration, and formation of a general advisory board.

The Sofia Municipality has a high potential for development but redirection is necessary towards new higher technological development and quality of the service functions for its transformation into an important European center of sub-regional significance as a modern European city in all aspects of this definition. It is for this reason, that the balanced development of the Metropolitan Municipality does not represent a local issue, but is a national problem, which has to be solved by specialized programs for targeted impact, funding from the “Regional Development” Operational program (2007-2013) and other operational programs and plans, relevant to this program period.

**Strategic objective 3:** “Development of the European territorial cooperation and the positioning of Sofia City in the network of big European cities as an important center in the Balkan area and Southeast Europe”.

The third strategic objective is related to the complex development of the system of functional environments – for business, living, working, recreation and services in the broad sense of that concept. The positioning of Sofia in the polycentric system of big EU cities



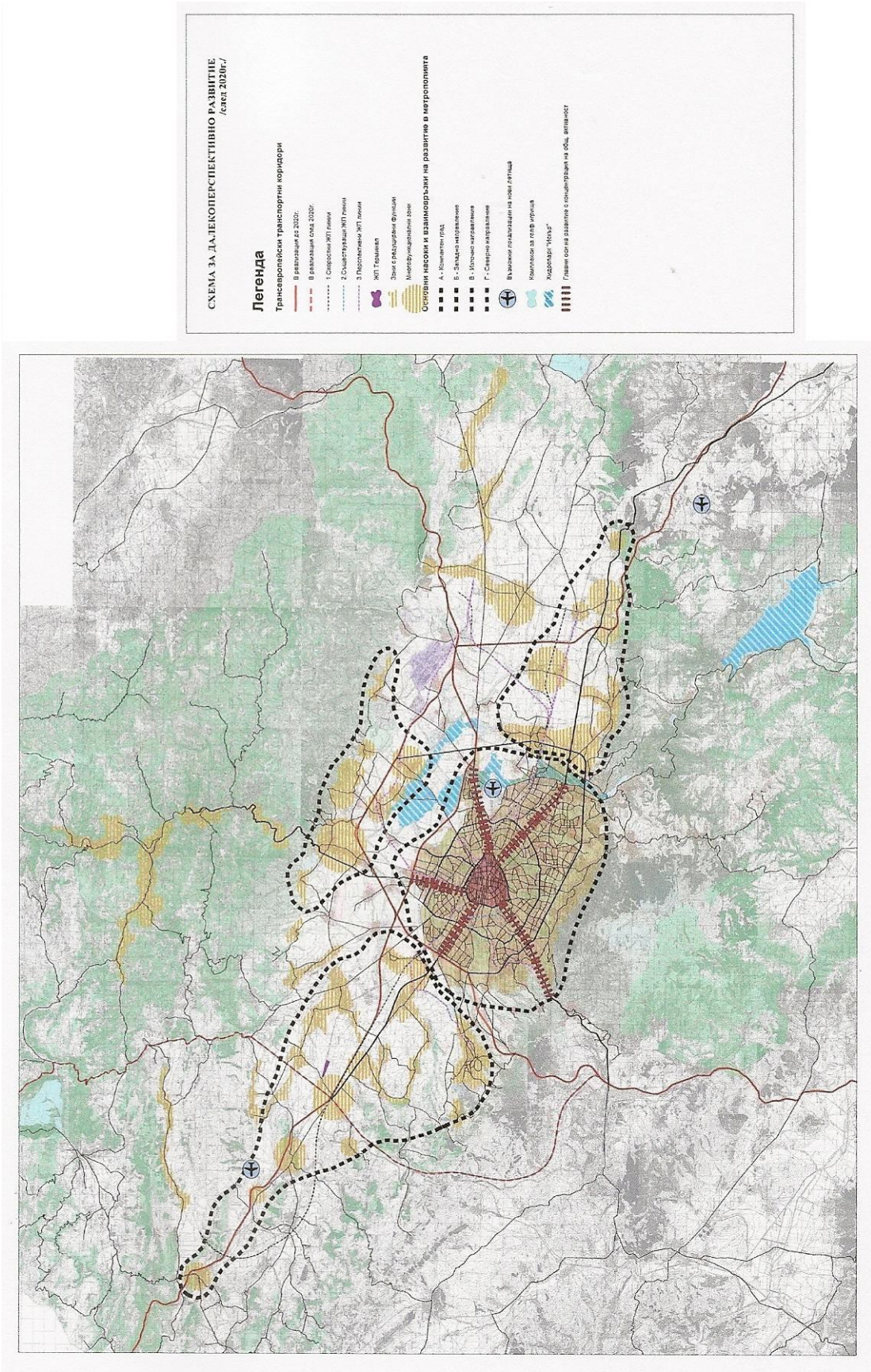
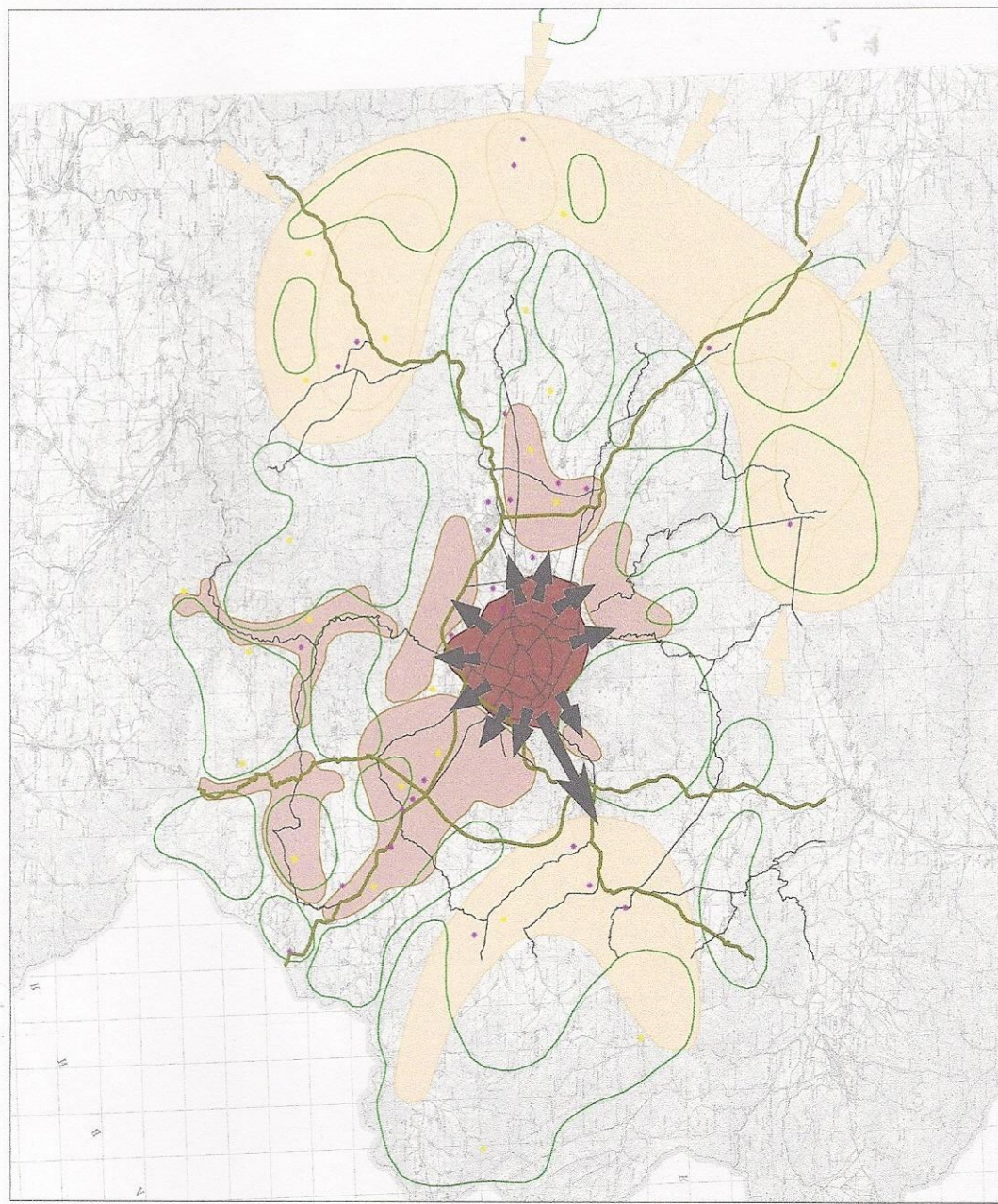


Fig. 5. Concept-development for distant perspective Footprint 2020





**Fig. 6. Strategy for determined development of Sofia**

depends on the quality of the environment, transport infrastructure, effectiveness of the governing system, standard of living, protection of the environment and the cultural heritage.

The achievement of the main objective will be realized by focusing on priority sectors, specific objectives for the development of these sectors, operations for each of the objectives and concrete activities for implementing each of the operations.

### **3. Priority axes, objectives and operations**

**Priority axis 1:** Improving the competitiveness by economy based on knowledge and information society

**Objective 1** Create favorable environment for the development of modern and high-tech sectors of local economy.

#### **Operations:**

- Development of modern complexly-arranged industrial and business zones;
- Development of technological parks and high-tech business incubators;
- Participation in the development and implementation of normative regulations and stimuli for the implementation of high-tech productions;
- Construction of new and improvement of existing market-places and stock-markets;
- Localization and development of a unified system of technological-production clusters in the Sofia agglomeration and the Southwest Planning Region;
- Creation of public-private partnerships and initiatives for economic development;
- Creation and management of venture capital funds, guarantee funds and micro-credit funds, establishment and extension of “business angel” network functioning.

**Objective 2** Increasing the research, technological and innovative potential

#### **Operations:**

- Development of education, science and scientific research and improving their connections with industry
- Development of information technologies and IT infrastructure. Support of innovative and technological companies in the municipality. Protection of Industrial Property. Support for the development of “national innovation networks”.

**Objective 3** Promotion of entrepreneurship and development of small and medium enterprises (SME)

#### **Operations:**

- Development of a network of business incubators supporting the development of SMEs entrepreneurship;
- Support for SMEs by the municipality and encouraging business to work with EU funds;
- Support for the development of entrepreneur networks and sub-contractor chains of SMEs;
- Support for SMEs to adopt the European requirements and standards;
- Introducing energy saving technologies in the enterprises;
- Introducing renewable energy sources in the enterprises;
- Improving the dialogue and awareness between small and medium business and the municipality.

**Objective 4** Attracting, retaining and expanding investment in local economy

**Operations:**

- Development of a strategy and specialized programs for municipal marketing;
- Introducing the operation of an effective system for administrative-technical services of investment initiatives;
- Encouraging investment activity and attracting local and foreign investments.

**Objective 5** Promoting the development of knowledge-based services and ICT

**Operations:**

- Development of local infrastructure of information society;
- Establishing an Entrepreneur Information Desk;
- Development of an integrated municipal school information system.

**Objective 6** Implementing the experience of other regions, big cities and capitals in the EU through cooperation and collaboration between public administrations, business and non-governmental organizations

**Operations:**

- Exchange of experience on policies for attracting investments in highly technological productions;
- Organizing joint business forums, exchange of experience and advice.

**Objective 7** Development of modern tourism supply

**Operations:**

- Development of business, cultural, sport and wellness tourism;
- Application of integrated marketing strategy.

**Priority axis 2:** Development and modernization of transport and engineering-technical infrastructure, ensuring conditions for growth and employment

**Objective 1** Reconstruction and connection of the municipal infrastructure (transport and engineering-technical) with the Trans-European highway and trans-corridor infrastructural network

**Operations:**

- Connecting the Metropolitan Municipality with the European highway (trans-corridor) infrastructure and its transformation into a regional crossroad center;
- Rehabilitation, modernization and electrification of railway lines and the sections of the Trans-European transport corridors of national and European importance, falling into the region of the Metropolitan Municipality and the affiliated infrastructure;
- Development of the infrastructure supporting the Sofia airport.

**Objective 2** Development of the municipal transport network and improvement of the connections between the single internal territorial units and external zones

**Operations:**

- Connecting the network of transport corridors with the transport-communication network of the city and the region by reconstruction of the existing links and establishment of new ones;
- Further construction and development of the rural transport infrastructure (including rail transport);

- Construction of intermodal facilities for combined transport.

**Objective 3** Completing and updating the internal transport and infrastructural systems in the municipality

**Operations:**

- Construction of key urban transport routes and ring and tangential alignments;
- Development of a parking lot system in the central urban part and the peripheral zone of the city (buffer parking lots);
- Development of the system for traffic control and management;
- Development and construction of a track for a high-speed train (up to 160 km);
- Establishment of highly developed information-communication infrastructure.

**Objective 4** Further construction of the Sofia metropolitan

**Operations:**

- Development and expansion of the metropolitan as the backbone of public transport.

**Objective 5** Development of the engineering-technical and other infrastructure for environment rehabilitation and protection

**Operations:**

- Enhanced construction of new depots and a treatment plant for solid household waste processing;
- Construction and improvement of water supply and sewerage infrastructure;
- Construction of engineering-technical infrastructure in the settlements located in the northern arc as the condition for its rapid development;
- Rehabilitation, modernization and development of the heat supply network, its equipment and sub-stations;
- Construction of effective gas-transfer and gas-supply infrastructure based on modern schemes and technologies;
- Development of the system for prevention of natural disasters, big industrial accidents and fires.

**Priority axis 3:** Improvement of the living conditions and quality of environment

**Objective 1** Renovation and spatial planning of the urban environment

**Operations:**

- Integrated development of Sofia City and Sofia agglomeration;
- Maintenance and effective use of an information geodatabase.

**Objective 2** Preserving and rational use of natural and cultural heritage

**Operations:**

- Reconstruction, restoration and conservation of natural and cultural-historic monuments;
- Development of local cultural environment and institutions;
- Preserving and developing the greenery system for wide public use in the urbanized territories of the surrounding zone and in Sofia;
- Construction of thematic parks for recreation;
- Construction of the “Sofiyska Sveta Gora” theme park;

- Nomination of the center of Sofia for "world cultural-historic heritage" (WCHH) and ensuring access to all outcropped sites of CHH.

**Objective 3** Improvement of social infrastructure and quality of public services and attractiveness of the municipality

**Operations:**

- Expansion of the municipal residential fund for meeting the needs of people with low incomes;
- Spatial planning and reconstruction of underprivileged Roma quarters;
- Development of the system of public services and the respective infrastructure in the settlements of the surrounding zone and in the city – health care, education, sports, culture, public utilities, etc.;
- Construction of the secondary public service centers;
- Improvement of public safety.

**Objective 4** Integration of handicapped persons and disadvantaged groups in an unequal physical, social, economic and ethnic status

**Operations:**

- Expanding the types of social services for problematic strata of the population;
- Improving the access to public buildings and street mobility of handicapped persons and disadvantaged people;
- Development of a system for vocational training and retraining of the workforce with low education;
- Development of easily accessible system for education and training of individuals and groups with disadvantaged status and minority ethnic groups;
- Reducing unemployment among the vulnerable groups at the labor market.

**Objective 5** Sustainable development, preserving and improving the environment and risk management

**Operations:**

- Introducing separate waste collection and recycling technologies;
- Applying an integrated model for water resources management;
- Conducting effective spatial planning and technical measures for reducing noise pollution of environment, harmful substance emission and greenhouse gases in Sofia;
- Preserving agricultural lands and forests;
- Introducing energy saving technologies and alternative energy sources;
- Creating a system for control and annihilation of illegal landfills;
- Preserving and restoring the biological diversity;
- Encouraging environmentally friendly urban transport;
- Developing the activities and the status of the "Local Agenda – Sustainable Sofia 21" program.

**Objective 6** Improving the competitiveness of human resources

**Operations:**

- Raising the educational level of human capital;

- Improving the professional qualification of the workforce and retraining of the employed in the sectors subjected to restructuring;
- Enhancing the computer literacy and foreign language education of the workforce;
- Policy for lifelong training and learning. Raising the quality of the workforce by partnership between municipal communities, academic institutions and business;
- Gender equality at the labor market;
- Innovative approaches to the management of the changes and restructuring of local economy;
- International standards for management of quality, environment and salubrious and safe labor conditions.

**Objective 7** Increasing the efficiency of the educational system and developing culture, sport and youth activities

**Operations:**

- Improving the school environment – achieving effective management of the existing municipal resources in education and training;
- Improving the quality of the offered educational and training services;
- Development of sport, youth activities and non-governmental sector.

**Priority axis 4:** Development of international cooperation for European territorial cohesion, closer partnership and European integration

**Objective 1** Development and promotion of interregional and transnational cooperation

**Operations:**

- Initiation and realization of cultural events, competitions, exhibitions and other promotional events of transnational and transregional nature;
- Participation of the Sofia Municipality in the EU twinning program;
- Expanding the membership and participation of representatives of the Sofia Municipality in events and activities of the various EU institutions;
- Cooperation with local and regional authorities from other EU regions;
- Promotion of the cooperation with the European regions.

**Objective 2** Establishing and maintaining international partnership

**Operations:**

- Cooperation of Sofia with other European capitals;
- Expansion of the international cooperation and the effectiveness of public relations. Involving international organizations and institutions, represented in Sofia;
- Development of bilateral and international contacts to promote local initiatives of various nature.

**Objective 3** European integration

**Operations:**

- Strengthening the role of the representative office of the Metropolitan Municipality/Sofia in Brussels;
- Implementing the European legislation and opportunities for EU funding.



**Priority axis 5:** Strengthening the institutional capacity for effective management and development of Sofia Municipality

**Objective 1** Increasing the local capacity to influence the development of the municipality and the offered services

**Operations:**

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**Objective 2** Strengthening the capacity of municipal administration to work with the Structural and Cohesion Funds

**Operations:**

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**Objective 3** Development of regional partnerships between local authorities, NGOs and business

**Operations:**

- Supporting civil society and business to work with EU funds;
- Partnership between local administration and stakeholders for adequate implementation of outsourcing and public-private partnerships;
- Promoting partnership in policy formation;
- Developing supra-municipal activities and projects, and partnership.

**The general development plan of the Sofia City** is regulated by the Sofia Spatial Planning Act. This Act is synchronized with the Municipal Development Plan.

**The urban polycentric planning of Sofia** is aimed at creating conditions for sustainable development of different territorial structures. The objective is to support the economic aspect of urban development while searching for optimal social effect in the metropolis region in harmony with the environment and the natural settings.

**The urban development of Sofia** as a specific process has considerably outpaced in time the development of the other towns in Bulgaria because of the fact that it is the largest city with the most developed economy. So far, many ideas discussed within the framework of these projects have been used in the development of the Strategy for Development of Sofia District, the Municipal Development Plan till 2013, and the programs for implementing the General Development Plan of Sofia. The basic principle of balanced development of Sofia as major center and of the system of smaller urban centers in the surrounding region and the zone of active impact is embedded as the leading principle in the General Development Plan of Sofia.

In the final documents of METREX adopted by the European Commission, the importance of Sofia as a key nucleus in the polycentric system of the European metropolises has been outlined. This most clearly is underlined in the Second Phase Report of the "PolyMETREXplus – RINA North-South Interface" project. As a result, the official statement of METREX points out the necessity of greater assistance on behalf of the European Union for the development of its eastern peripheral parts by improving, first, the transport communications, and then the local economy. The aim is to achieve better balance and to avoid the overloading of urban centers. Within the frames of the European Union this refers

to the so-called Pentagon – the zone with the highest economic parameters in Europe provisionally outlined between London, Paris, Milan, Munich and Hamburg.

**Sofia is part of the north-south axis of the European Union.** The north-south axis is a peripheral zone in the eastern part of the EU and less developed compared to the Pentagon respect of economy, transport communications, infrastructure, etc. For this reason, it is important to strengthen the centers and links along this axis – from Helsinki to the north, via Sofia to Athens to the south, so that they could play a balancing role within the frames of the spatial structure of Europe. To achieve this objective, the new “PolyTechnoPolis Sofia Helsinki” project was prepared and launched for funding from the “Regional Development” operational program on the basis of the formulated principles for development of the metropolitan regions falling within the range of the north-south axis and the priorities of the General Development Plan of the Sofia Municipality.

## **REGIONY CENTRALNE I AGLOMERACJA SOFIJSKA**

**Abstrakt.** Autorka prezentuje wyniki badań nad centralnymi regionami Bułgarii z zastosowaniem metody taksonometrycznej, a także wnioski płynące z badań. Każda gmina położona w regionach centralnych kraju została dokładnie przebadana na podstawie opracowanych materiałów metodycznych. Rozwinięte obszary aglomeracji są położone w regionach centralnych. Aglomerację sofijską autorka przedstawia wykorzystując Ogólny Plan Zagospodarowania Przestrzennego Sofii oraz Plan Rozwoju Miasta dla obszaru metropolitalnego stolicy. Plan ten ustala wizję rozwoju miasta oraz priorytety, cele i środki.

**Słowa kluczowe:** regiony centralne, obszary aglomeracji, aglomeracja sofijaska, Ogólny Plan Zagospodarowania Przestrzennego, Plan Rozwoju Miasta.

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