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# BACKGROUND INFORMATION

## Partner country

Republic of Serbia

## Contracting authority

Regional Agency for Socio Economic Development – Banat Ltd., Dr Kornela Radulovića 18, 23000 Zrenjanin, Republic of Serbia

## Country background

The project is implemented within the Interreg IPA Romania-Serbia Programme for the period 2021 - 2027. It lays the foundations for using EU funds under the cross - border component of the IPA Regulation, to support cross - border cooperation on the Romanian - Serbian side.

## Current situation in the sector

Poor air quality (AQ) has a negative impact on quality of life. It causes many health issues, such as asthma and cardiovascular problems, which in turn results in lost working days, higher costs for health care services, especially for children and the elderly. Health problems linked to poor AQ are particularly bad in built-up urban areas, where air quality is generally lower, while it is the no. 1 cause of premature death across the EU (according to the OECD, "Urban air pollution is set to become the top environmental cause of mortality worldwide by 2050"). In addition to the damaging effects on human health, it also damages vegetation and ecosystems.

Programme area are waging a major battle with this challenge, facing the fact that infrastructure development and increased mobility negatively impact the environment due to increase in air pollution generated by vehicles and other sources, represented by chemical emissions like gases(CO, NOx, SO2, O3, etc.) and carbon-based particulate matter enriched with heavy metals (PM10,PM2.5 & PM1).

## Related programmes and other donor activities

This Project is complementary to other national and programmes financed by EU.

# OBJECTIVES& EXPECTED OUTPUTS

## Overall objective

Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution

## Specific objective(s)

This contract should support Regional Agency for Socio Economic Development – Banat Ltd. Zrenjanin in the process of implementation of project ”Blue Sky - Cross-border Solution to Air Pollution” financed under INTERREG-IPA CBC Romania-Serbia Programme by creating Transport model and Sustainable Urban Mobility Plan (SUMP) for City of Zrenjanin..

## Expected outputs to be achieved by the contractor

The expected outputs of this contract are as follows:

* Development of Transport Model of the City of Zrenjanin
* Establishment of planning framework for sustainable mobility and reducing air pollution (SUMP) of the City of Zrenjanin

# ASSUMPTIONS & RISKS

## Assumptions underlying the project

Not applicable.

## Risks

Not applicable.

# SCOPE OF THE WORK

## General

### Description of the assignment

*Development of Transport Model and Sustainable Urban Mobility Plan (SUMP)of the City of Zrenjanin*

The Transport Model of the City of Zrenjanin, as the basis for the SUMP preparation, was done last time in 1974, which means that serious planning of sustainable mobility in the City of Zrenjanin has not been implemented for almost 50 years.

The first phase includes the implementation of traffic research - formation of an information base for the needs of creating a transport model of the City of Zrenjanin (surveys, traffic counting at characteristic sections, speed measurement at certain sections, analysis oftransport flows, etc.).

The second phase represents the modelling of the city's transport network in specialised software for macro simulation of traffic flows. The basic transport model includes modelling of the existing traffic network in the area of the City of Zrenjanin, zoning, formation of I-C matrices based on traffic research and loading of the existing street network with current traffic requirements.

This document serves the needs of analysis and planning of all future infrastructure projects and changes to the city's traffic system, as well as the evaluation of various variants of proposals for improving the existing situation.

Within establishment of planning framework for sustainable mobility and reducing air pollution in Zrenjanin.

SUMP will be developed for the territory of the City of Zrenjanin, covering the regional roads connecting to national/international corridors, leading to the border.

Addressing social, environmental and economic objectives, as well as integration and safety objectives, there will be increased emphasis on sustainable transport solutions.

### Geographical area to be covered

City of Zrenjanin, Serbia

### Target groups

Public, private and NGO sectors, higher education and research sector and project implementation team.

## Specific work

*Development of the transport model of the city of Zrenjanin*

Sustainable urban mobility plans are the most important planning documents that greatly influence economic development and quality of life in the city. In order to define measures and action plans within the plans of sustainable urban mobility, it is necessary to carry out a comprehensive analysis of the traffic system in the first step. For this reason, a traffic study formed on the basis of comprehensive research of all segments of the traffic system represents the most valuable basis for the development of a sustainable urban mobility plan. The most effective way of analyzing and testing the effects of measures and action plans is carried out within the transport model formed with the help of modern software tools. The traffic study of the city of Zrenjanin was last carried out in 1974, which means that comprehensive investigations of the traffic system have not been carried out for almost 50 years.

For this reason, and in accordance with the goals of the project, a special goal was defined, the creation of a transport model of the city of Zrenjanin, which also represents the basic output of this part of the project. The transport model will also enable the determination of the number of trips in and out of the city, i.e. the road network that connects Zrenjanin with the border areas and Romania.

In order to realize this goal, in the first phase it is necessary to carry out research on the complete traffic system of the city of Zrenjanin and create a database. In this sense, it is necessary to carry out research and analysis in the following areas:

* + - Analysis of street and road network characteristics and traffic regulation methods. This task will be performed by analyzing the city's existing documentation, and if necessary, by field research.
    - Analysis of flow requirements. This task will be realized by researching the characteristics of the traffic flow on all entry-exit directions, characteristic intersections and key intersections on the street network during peak hours. The analysis should include motor vehicle traffic, bicycle traffic and pedestrian traffic
    - Investigation of the speed of traffic flow of vehicles on the street network. This task will be performed using the mobile observer method on the primary street network and representative parts of the secondary street network
    - Level of service on the street network. This task will be performed by analysis in appropriate application software.
    - Investigating parking features. Realization of this task involves research and measurement of parking characteristics in representative public parking lots and a survey of parking lot users.
    - Investigation of the characteristics of public transport. This research involves the analysis of existing studies in the field of public transport, existing city decisions related to public transport and data provided by the city and the current transporter.
    - Investigating the characteristics of mobility. This task will be carried out by a survey on a representative sample.
    - Within the proposed methodology, the study developer will elaborate in detail the research methods and models that will be implemented in the first phase.

Within the second phase, in the adequate application software, it is necessary to create a transport model and perform its calibration in order to faithfully and completely present the current state of the traffic system in the city of Zrenjanin. The transport model implies the modeling of the existing traffic network in the area of ​​the City of Zrenjanin, zoning, the formation of I-C matrices formed as the basis of research carried out in the first phase.

The transport model of the City of Zrenjanin will serve the needs of analysis, planning and testing of various scenarios and measures that will be implemented in order to achieve the goals of sustainable urban mobility or the impact of variants of future infrastructure projects and the city's traffic system.

The formation of the transport model will enable the achievement of another specific goal, which is the implementation of effective measures to increase the mobility of citizens using non-motorized modes of travel.

Therefore, the formation of a transport model will allow testing and selection of measures that will affect the improvement of the quality of traffic conditions, increase mobility and reduce the emission of pollutants, which would positively affect the improvement of the quality of life of citizens in the City of Zrenjanin.

In addition, the transport model will enable the testing and selection of measures that will enable better communication between the City of Zrenjanin and the City of Timisoara, i.e. cross-border cooperation, i.e. joint planning of sustainable mobility in accordance with the following principles:

* + - Define the long-term vision and implementation plan
    - Cooperation across extra-institutional borders
    - Develop modes of transport in an integrative way
    - Involve citizens and stakeholders
    - Evaluate current and future performance

Special emphasis is placed on the results obtained by Air Quality monitoring and measurement, as well as the inclusion and participation of citizens and other relevant entities, through the harmonization of decisions in various sectors such as: traffic, spatial and urban planning, environmental protection, etc.

The main risk for the implementation of the project may be the capacity of the local self-government, that is, the ability of the city institutions to respond to the requests of the study developer in terms of providing data and legislative acts of the city in the field of traffic.

*SUMP for the City of Zrenjanin*

On the Serbian side, a SUMP will be developed for the territory of the city of Zrenjanin, which will, through measures and action plans, connect with national/international corridors leading to the border.

On the Romanian side, the SUMP for Timișoara was prepared in 2015 and updated in 2020. In view of this, a Sustainable Mobility Plan (SMP) will be also developed through the Blue Sky project by Romanian partners for the territory of Timis County, with a cross-border mobility component in accordance with the goals of all their project partners and harmonized with other plans.

In accordance with the general goals of the project, the main goals of the preparation of the SUMP in the City of Zrenjanin, as a strategic planning document in the field of traffic, are:

* + - Increasing mobility while reducing the use of cars
    - Creating more favourable conditions for non-motorized road users
    - Increasing the accessibility and safety of road users

Fulfilment of the set goals would enable the reduction of pollutant emissions and the quality of life of citizens, as a general goal arising from global and European strategic documents.

In order to realize the defined goals, it is necessary, in the first step, to implement certain activities that include the following:

* + - Organizing meetings and workshops with city institutions that deal with traffic matters, local experts as well as non-governmental organizations that are interested in issues of sustainable urban mobility.
    - Analysis of planning and strategic documents related to issues of sustainable urban mobility
    - Defining and conducting research necessary for the realization of further phases of the project.

In the next step, it is necessary to analyze the results of the previous activities and in accordance with the strategic European documents as well as the instructions and general rules of the preparation of SUMP measures that would lead to the achievement of the set goals of sustainable urban mobility. Accordingly, it is necessary to define and analyze the following measures:

* measures for harmonizing the city's legislative acts in order to implement the city's traffic policies in accordance with the goals of sustainable urban mobility
* measures in the field of traffic regulation and development of traffic infrastructure
* measures in the field of public urban and suburban passenger transportation
* measures to improve the quality and safety of bicycle traffic
* measures in the field of parking policy
* measures to increase accessibility and increase the quality of pedestrian traffic

Each mentioned measure refers to one area of ​​action, and for that reason, several different activities can be defined within one measure, in several different steps.

In accordance with the defined measures and activities, it is necessary to define action plans within which, for each proposed measure or activity, the following would be defined:

* the state of the area, which includes an analysis of previously undertaken activities by the city or some other entity
* activity holder
* objectives, expected results and effects of implementing the measure
* required planning and project documentation
* phases, spatial and temporal framework of implementation
* required resources
* assessment of funds needed for implementation
* potential sources of funds
* risks

The process will include:

* identification of all factors
* involving the public in the process of "planning for citizens"
* defining the development process and scope of the plan in accordance with the identified intercity, interregional and international traffic corridors and development policies;
* identification of key traffic problems
* organization of working groups at the local level and consultations of relevant actors
* local working meetings, with working groups, and international, with experts for project partners
* development of scenarios with assessment of interdependence between sectors
* formation of visions - "SMART" goals
* analysis and evaluation of sustainable mobility development variants using the basic transport model
* adopting a common vision of mobility
* development and adoption of the Action Plan with clear roles of each factor
* defining the monitoring plan and success indicators.

In order to guide and monitor the preparation process, working groups will be established on both sides, composed of (public, private and non-governmental sectors, higher education and research, etc.). They will meet at least once during the preparatory process, in order to harmonize the methodology and development goals, but also to exchange experiences and knowledge.

After the process of preparation and public consultations, the SUMP will be adopted by the City Council and published in the Official Gazette of the City of Zrenjanin with all its parts, guidelines for implementation and monitoring, as well as indicators of the success of the implementation of the SUMP.

## Project management

### Responsible body

The Contractor is responsible for all the activities regarding this contract.

### Management structure

The responsible person for implementation of the tasks related to this contract, in the Contracting Authority is Irena Vukić, Legal Representative.

### Facilities to be provided by the contracting authority and/or other parties

Contracting Authority will provide office space with internet connection for facilitation of this service if required by Contractor.

# LOGISTICS AND TIMING

## Location

Zrenjanin, Serbia

## Start date &period of implementation of tasks

The intended start date is date of signature of contract by both parties and the period of implementation of the contract will be 16 months. Please see Articles 19.1 and 19.2 of the special conditions for the actual start date and period of implementation.

# REQUIREMENTS

## Staff

Note that civil servants and other staff of the public administration of the partner country, or of international/regional organisations based in the country, shall only be approved to work as experts if well justified. The justification should be submitted with the tender and shall include information on the added value the expert will bring as well as proof that the expert is seconded or on personal leave.

### Key experts

**Key expert 1: Team leader**

Qualifications and skills

* University degree in traffic engineering or similar

General professional experience

* 3 years of general working experience

Specific professional experience

* Worked as team leader in at least 3 traffic related studies

**Key expert 2: Key Expert for traffic planning**

Qualifications and skills

* University degree in traffic engineering or similar

General professional experience

* 3 years of general working experience

Specific professional experience

* Worked as in development of least 1 traffic planning related studies

**Key expert 3: Key Expert for public transportation**

Qualifications and skills

* University degree in traffic engineering or similar

General professional experience

* 3 years of general working experience

Specific professional experience

* Worked as in development of least 1 public transportation related studies

**Key expert 4: Key Expert for parking**

Qualifications and skills

* University degree in traffic engineering or similar

General professional experience

* 3 years of general working experience

Specific professional experience

* Worked as in development of least 1 parking related studies

**Key expert 5: Key capacity and level of service of city traffic roads/lines**

Qualifications and skills

* University degree in traffic engineering or similar

General professional experience

* 3 years of general working experience

Specific professional experience

* Worked as in development of least 1 capacity and level of service of city traffic roads/lines related studies

Important Note: one Key expert may cover one or more required positions if satisfy specific professional experience.

All experts must be independent and free from conflicts of interest in the responsibilities they take on.

### Other experts, support staff & backstopping

CVs for experts other than the key experts should not be submitted in the tender but the tenderer will have to demonstrate in their offer that they have access to experts with the required profiles. The contractor shall select and hire other experts as required according to the needs. The selection procedures used by the contractor to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience.

The costs for backstopping and support staff, as needed, are considered to be included in the tenderer's financial offer.

## Office accommodation

Office accommodation for each expert working on the contract is to be provided by the contracting authority.

## Facilities to be provided by the contractor

The contractor shall ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support their work under the contract and to ensure that its employees are paid regularly and in a timely fashion.

## Equipment

**No** equipment is to be purchased on behalf of the contracting authority / partner country as part of this service contract or transferred to the contracting authority / partner country at the end of this contract. Any equipment related to this contract which is to be acquired by the partner country must be purchased by means of a separate supply tender procedure.

# REPORTS

## Reporting requirements

The contractor will submit the following reports in English in one original:

* **Interim Report** The contractor will prepare interim reports on the implementation of the tasks, at the 7th month of contract service implementation after transport model of the city of Zrenjanin is finished. The report shall contain a sufficiently detailed description of the different options to support an informed decision on service performed. The interim reports report must be provided along with the corresponding invoice. The approval of the interim report by the Contracting
* **Final report** The contractor will prepare final report on the implementation of the tasks, at the end of this contract. The report shall contain a sufficiently detailed description of the different options to support an informed decision on service performed. The final report must be provided along with the corresponding invoice. The approval of the final report by the Contracting Authority will be the basis for issuing final payment as indicated in the Special Conditions.

## Submission and approval of reports

The report referred to above must be submitted to the project manager identified in the contract.The project manager is responsible for approving the reports.

# MONITORING AND EVALUATION

## Definition of indicators

The indicator of the successful implementation of the contract is “Services provided in timely, quality and quantity manor, as required in these Terms of Reference”

## Special requirements

Not applicable