



CiViTAS
Cleaner and better transport in cities
RENAISSANCE

CASE STUDY



NEW TRAFFIC ORGANISATION AND STRATEGY

DEMAND MANAGEMENT STRATEGIES



During recent years the motorisation rate in the Gorna Oryahovitsa area increased more than three times, reaching the level of 50 vehicles per 100 inhabitants. This exceeds the average rate for Bulgaria. New industrial areas emerged in the town itself and adjacent territories, resulting in increased car and truck traffic flows that the existing infrastructure cannot cope with. Currently Gorna Oryahovitsa has 386.7 km street network and 1,245 parking lots. Both local and transit freight traffic passes through the downtown and residential areas causing incident traffic problems, air and noise pollution. Traffic jams occur and high levels of air pollution is measured during peak periods. A new traffic organisation scheme in the town of Gorna Oryahovitsa is being implemented as part of the RENAISSANCE program. At the same time, a feasibility study for a ring/by-pass road will be undertaken. This will aid in the reduction of the number of heavy goods vehicles crossing sensitive urban areas.

MUNICIPAL PROFILE

LOCATION

Gorna Oryahovitsa, Bulgaria

POPULATION

54,283

LAND AREA

318 km²; 21,108 km² land area

CIVITAS BUDGET

EUR 272,919

Municipal context

The municipality of Gorna Oryahovitsa in the north of Bulgaria consists of two towns and 12 villages on an area of 318 km². It counts a population of 54,283 inhabitants, of whom 36,901 live in the administrative centre, the town of Gorna Oryahovitsa. The existing transport system cannot cope with the steep increase in car and truck traffic through the city centre. The town is the third biggest railway junction in the country

and the fifth international airport in Bulgaria. It is a natural crossroad, situated in a strategic position between two roads of national importance.

Introduction

During CIVITAS a new traffic organisation scheme was implemented in the town of Gorna Oryahovitsa. The main goals were to create a new traffic system on some key crossroads in the downtown area and to achieve



GORNA ORYAHOVITSA IN CIVITAS

Gorna Oryahovitsa participated in CIVITAS RENAISSANCE. Under the motto of "Testing Innovative Strategies for Clean Urban Transport for historic European cities", the project connects five cities that face mobility challenges through seasonal tourism: Perugia (Italy), Bath (UK), Gorna Oryahovitsa (Bulgaria), Szczecinek (Poland), and Skopje (Macedonia).

PROJECT INFORMATION

CIVITAS RENAISSANCE aims to demonstrate how the legacy of the renaissance can be preserved and developed through innovative and sustainable clean urban transport solutions. The project aims to test and develop a valuable, reliable and integrated package of mobility measures that will make historic cities cleaner and safer.

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Traffic calming solutions

optimisation of the parking policy, as well as to establish new traffic restricted areas and to reduce a road traffic in the downtown area. The measure implementation aimed at the improvement of conditions for active transport modes downtown. A feasibility study for a ring/by-pass road was also undertaken.

Taking a closer look

The implementation of the activities was done in several steps. Each step consisted of a thorough analysis of the current situation, and of public consultations with stakeholders, traffic police, stakeholders, municipal council, transport commission, and municipal commission for traffic safety.

The first stage was a study on the establishment of traffic restricted zone/s, which included the definition of the main traffic flows and conflict sections, the development and testing of a mathematical model that took into account possible variants for the diversion of main traffic flows. This was followed by the development of a new route network and proposals for pedestrian areas, as well as analysis for restriction areas and the identification of suitable routes for heavy goods vehicle traffic.

The second stage was the development of an updated parking management scheme.

New available terrains to be converted in parking zones were identified. The institutional basis – ownership, payment, type of payment, regulations – were defined together with the appropriate parking zones. After the discussions of different variants, official proposals for new parking management schemes were developed and subsequently approved by the Council and implemented by the police.

The third stage was the identification of dedicated routes for heavy goods vehicles. The problem sections were identified and different variants for diverting or prohibiting heavy vehicle traffic in these sections were tested. The next step was a proposal for building a new road connection linking industrial zone and the boulevard.

Following this a by-pass road feasibility study was elaborated. This was developed with two working variants of road-beds, compared by cost-benefit analysis.

The three stages led to the elaboration of an optimised traffic management scheme. Experts were hired to design the new traffic organisations scheme, which was then officially proposed to the municipal council for adoption.

The new technical design of four crossroads in the city was subject to a tender process.

The infrastructure building companies were appointed and the building of the crossroads took place.

Small tests were implemented, including the transformation of two existing crossroads into roundabouts; the traffic re-organisation of other two crossroads, the main city street and of three schools in the city (by installing new traffic signs, traffic calming facilities and blinking light traffic signs). For the other two intersections in the city new designs were elaborated. One of the most attractive elements of the implementation was the campaign "Safety for our children".

As far as it concerns the parking policy, four parking lots, including the one in front of the railway station were developed. Restricted zones were introduced and the heavy vehicles were rerouted completely out of the downtown area.

Results

The results achieved after the implementation of the measures are: improvement of traffic situation in the city; increase in traffic safety in the city; reduction of number of traffic-related accidents and of road traffic in the downtown area (average daily and peak traffic per vehicle categories); removal of heavy truck traffic from downtown area and sensitive living areas; reduction of air and noise pollution;



improvement of living conditions for the citizens of Gorna Oryahovitsa; improvement of parking management; successful implementation of a campaign on "Safety for our children"; and high levels of acceptance of the population towards the newly implemented changes in city traffic organisation scheme.

Lessons learned

The involvement of the citizens in the measure implementation was vital and very successful. Citizens were informed about the measure goals at a very early stage. During the household survey, a high percentage of them gave their support to the proposed changes in the existing traffic organisation. During the measure implementation citizens' support proved to be a big motivational factor for the key measure partners.

Political support is also necessary. In Gorna, the high levels of citizens' support and the mayor's personal involvement were not enough to convince the city councillors to accept the right solutions to the problems of traffic in Gorna Oryahovitsa, and they voted against the measures.

Limited financial resources make it hard to successfully implement a measure. In the city, due to lack of financial resources, only two of four roundabout crossroads were constructed, despite the Municipality's goodwill and the

positive reactions from the residents. It is therefore essential that all the necessary financial resources are available to guarantee the successful implementation of any activity.

Finally, it is very important to involve staff with the right technical qualifications and skills. The city of Gorna Oryahovitsa hired some experts for different tasks and the results were very positive.

Upscaling and transferability

With regards to upscaling, the Municipality is considering to reconstruct the other two intersections, for which the technical designs are already elaborated. The Municipality has also applied for funding on a national level to support the construction of the by-pass road. This information has already been received by the executive road agency, and the Municipality is awaiting their response. Upscaling activities are planned for the development of more pedestrian zones in different parts of the city and the introduction of a paid parking system.

Budget and finances

The CIVITAS activities opened an opportunity for additional funding from the executive road agency and the Ministry of regional development and public utilities. The Municipality also applied for national funding with the project of the by-pass road.

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Parking management scheme

