

City for All: Livable Peripheral Neighbourhoods in Ruse (Bulgaria) through Advanced Mobility Measures

Lucia Ilieva

(Prof. Lucia Ilieva, CSDCS, BULGARIA; mail@csdcs.org)

1 ABSTRACT

Ruse is the 5th biggest city in Bulgaria situated along Danube River. Druzhba is a new peripheral district in Ruse, home for more than 15% of its population, characterised by intense car traffic, poor public transport offer, lack of pedestrian and cycling infrastructure and lack of parking spots. A large share of the citizens living in Druzhba use personal cars and taxi services for these trips thus causing congestion, traffic accidents, air pollution and noise. There are no sidewalks and safety cross walks at the main Druzhba boulevard to the city centre. Pedestrians suffer under the growing road traffic and are very vulnerable to road accidents. Many local children and senior citizens have respiratory diseases.

In 2015 CSDCS invited Ruse to participate as a Bulgarian city in the CIVITAS ECCENTRIC Project and both partners started its implementation in 2016. The overall objective and impacts of ECCENTRIC are reached during the project lifetime by demonstration and testing of integrated packages of innovative solutions for sustainable mobility in peri-central 'living laboratory' areas, combining new policies, technologies and soft measures. It could be achieved by improving the quality of public space and road conditions for safe walking, increased participation of citizens and local stakeholders in developing mobility policies, services and traffic safety plans for suburban neighbourhoods, and changing the mobility mind-sets of citizens through direct and dialogue marketing and hands-on trainings, especially focussing on vulnerable groups (older people, school children, disabled).

The paper describes the innovative mobility solutions in the Ruse peripheral neighborhood named Druzhba (Friendship) that clearly contributed to the livability of the city of Ruse.

Keywords: mobility, SUMP, livable city, peripheral district, project

2 THE PROJECT MEASURES FOR LIVABILITY

The behavior of the Ruse decision-makers changed very fast thanks to the training and information campaign held by CSDCS in the beginning of the project. The Local Government realized that this project can improve the quality of life of suburban districts making them more livable through advanced mobility measures that mainly contribute to the public health and safety of citizens. The set of mobility measures implemented in the frames of the project became a part of the new Ruse SUMP that started its implementation in September 2018.

For solving the problems of the peripheral neighborhood, the following specific measures were planned:

- P&R facility in Druzhba district
- Large information and promotion campaign (including media and non-media communication, at least 7 seminars and 3 national conferences)
- Mobile application for PT
- New safe crosswalks in Druzhba
- New sidewalks with cycling lanes connecting Druzhba with city center
- New Ruse transport scheme
- Night line connecting the peripheral area with the city center

2.1 P&R station in Druzhba district

The ultimate goal of this measure was to promote the modal shift towards public transport by reducing the use of cars by commuters and visitors when they want to reach the city centre. The P&R station relieves road congestions along the routes regularly taken from Druzhba to the central part of Ruse. Many PT stops are situated nearby providing easy connections. The measure also helps to reduce the number of cars parked on the public spaces in Druzhba, as well as in the historical centre of Ruse.

The key challenge of this measure was the identification and selection of a suitable location of the P&R facility. It was not easy to do, as there were not so many free municipal terrains that were close to the entrance of the city, had good connections with PT and were big enough to serve as a P&R station. This issue has been overcome by carrying out an exhaustive analysis of the territory in the laboratory area. The P&R facility was designed and constructed on a municipal terrain as a demonstration measure in order to show how this type of parking strengthens the use of PT. The available surface of only 1178 m² allowed the construction of 41 slots (4 of them for disabled).

There is a ticket machine situated at the entrance providing drivers with 2 tickets for PT daily for the price of 2.5 BGN (1.3 euro). The parking is free-of-charge if the user buys tickets and visualizes the receipt in the car.

The pilot P&R station was officially opened in May 2019 but the setup of the ticketing system and the deployment of the information and promotion campaign took time, so only during the last quarter of 2019 the facility was functioning with good capacity. Nowadays it is visible that the measure turns out to be a success and we have plans to upscale it by introducing it in other parts of the city (i.e. at the main entrances from Sofia and from Bucharest). It will be done in the frames of the Ruse SUMP (that is actually in stage of implementation) and after the introduction of the new transport scheme of Ruse, because it is important that the new P&R stations are situated closely to the PT stops.



Fig.1. Ticketing machine at the P&R entrance

2.2 New pedestrian infrastructure (safe sidewalks and crosswalks)

Two ECCENTRIC measures have improved the infrastructure for pedestrians and cyclists. The analysis of the existing infrastructure has shown that the existing pedestrian crossings in Druzhba were not secure enough presenting a high risk for accidents, leading to injuries and fatalities. Most people with disabilities and elderly people did not walk on the streets or travel by PT around the city due to the lack of convenient infrastructure.

In the frames of the project new safe crosswalks were designed and two crosswalks were constructed in the central part of Druzhba district. They were secured with LEDs, raised paths and cameras for video surveillance.

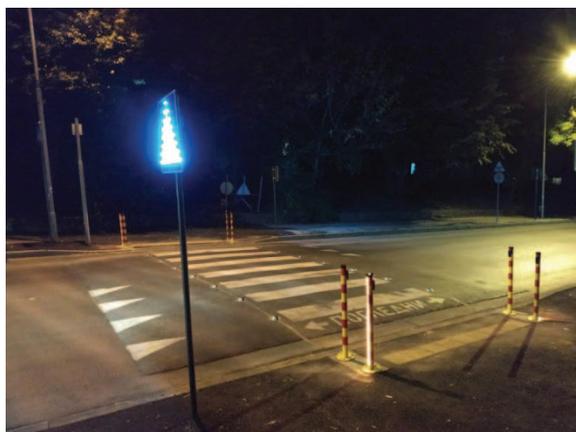


Fig.2 New crosswalk at the Druzhba entrance

A construction of safe sidewalks with cycling facilities towards the city centre was planned because the poor state of the existing pavements and cycling lanes in Druzhba district generated a high risk of road accidents involving pedestrians and cyclists. The footpaths on both sides of the main roads, connecting Druzhba with the central areas of Ruse were either incomplete or in a very bad state of disrepair, and were unsafe for walking or cycling.

After a research of good practice and innovative solutions on design of safe pavements (shared with cyclists), new sidewalks were designed and constructed in Druzhba. Their design envisaged the introduction of tactile paving between the walking paths and the cycling lanes of the sidewalks so that conflicts between pedestrians (including blind people) and cyclists were prevented. The total length of the sidewalks designed under ECCENTRIC and planned to be constructed in Druzhba was of 1500 m. The first segment of 300 m was constructed in the frames of the ECCENTRIC project. The three remaining segments will be constructed in the frames of the Ruse SUMP.



Fig.3 The new sidewalk along “V. Levski” Boulevard

Both measures contributed to achievement of the ambitious goals of the project – to reduce the number of road accidents involving pedestrians and to make walking and cycling a safer and more desirable way of moving in the district and in Ruse. The safe infrastructure for pedestrians, including people with disabilities will further increase the share of walking in the modal split in Druzhba, reduce the number of accidents with pedestrians and strengthen the use of public transport by disadvantaged groups living in the district.

2.3 Night line in Ruse

This measure was planned for the first time in Ruse in order to provide demand-oriented, fast, regular and reliable public transport service during the night for the Druzhba citizens. For this purpose a new PT line named ‘Good night’ was established in the frames of the ECCENTRIC project connecting the peripheral district with the city centre.

The main challenges faced while developing and implementing this measure so far have been to find the best solution for the vehicles to be used for operating the new line, and to identify an appropriate solution to award the operation of the service. As the municipality didn’t have enough resources for purchasing of e-vehicles during the project lifetime, we decided to use the existing trolleybuses. This decision has solved the problem with the operator – the service was assigned to the municipal trolleybus company.

Before launching the new service, a huge research took place aiming at establishing the most convenient itinerary of the new line. The route is from Druzhba district to Central Railway Station with 14 stops and passes through the main streets and boulevards connecting the peripheral area with the central part of Ruse. A large promotional campaign was launched for informing citizens about this initiative and inviting them to use it with the aim to decrease the use of cars and taxis for moving during the night. On 10th of May 2019 the ‘Good Night’ line was launched and started operating.

The measure strongly contributed to the social inclusion and livability in Druzhba. 90% of the citizens accept it and estimate that it will improve their living conditions. 90% are satisfied with the “Good night” line because it gives them possibilities to move in the night and to have access to the Ruse evening attractions thus decreasing the social inequality and improving the quality of life in the peripheral district.



Fig.4 Ruse night line

2.4 The new transport scheme of Ruse

The existing transport scheme of Ruse didn't satisfy the PT demand especially from the citizens living in the peripheral districts. The public transport service connecting Druzhba with the centre of Ruse and its industrial zones (around the city centre) was slow and unreliable. A large share of people living in the peripheral districts like Druzhba used their own cars or taxi services to travel to the city centre or to work.

Initially this measure aimed at providing demand-oriented, fast, regular and reliable public transport services to and from the city centre to the district of Druzhba. The implementation of the measure should include redefining and reorganizing the existing bus and trolleybus lines in order to improve the balance between demand and supply of public transport services.

Later on it became evident that we can't reorganize only one direction of the PT network leaving the rest of the Ruse PT unchanged. The municipality took the decision to reorganize the whole PT-network of the city according to the SUMP developed and approved for Ruse several years ago. With a combination of funding provided by the SF (via OP “Regions in growth”) for the SUMP and by ECCENTRIC the task was assigned to a subcontractor that made the analyses of the existing PT-situation and the demand and proposed a new PT scheme.

After a large public discussion, the new PT scheme was approved by the City council in September 2019. Its implementation will start in 2020 after the purchase of new clean PT-vehicles.

2.5 Mobile application for PT

The Mobility as a Service (MaaS) concept is very new for the City of Ruse. Currently, the only service related to MaaS is the developed internet portal and mobile app providing information about the public transport services in the city (such as timetables and route information of bus and trolleybus lines).

By this measure, the City of Ruse will develop an app that will support people in buying and validating public transport tickets, and also allow them to navigate through the system, in general via mobile devices (smart phone/tablet). The mobile app shall be available for more than one smart operating system (Android or iOS, as a minimum), and shall ensure the distribution, sale, validation and checking of tickets in the PT vehicles operating across Ruse. The electronic charging system shall be a combination of technical devices, a software application and a link to the PT Control and Management Centre in Ruse. The app's interface will provide information in Bulgarian and English.

Payment shall be possible through debit and/or credit cards. Cashless payment options shall also be available (Paypal, as a minimum). The mobile app will enable the collection of user feedback in the form of a Passenger Assessment of the service ‘charging and/or self-scanning via a mobile device’.

This measure is expected to be implemented after the introduction of the new PT scheme and will increase the use of public transport by minimum of 10%.

2.6 Information and promotional campaign

The main objective of this “soft” measure was to create awareness of the benefits of sustainable mobility in Ruse and its importance for increasing the quality of life. One seminar was organised for public transport personnel, six workshops - for citizens and NGOs, three mobility conferences and a large media campaign for stakeholders and the school community. The aim was to encourage the different actors to embrace sustainable mobility habits, to increase the use of public transport, and to make walking and cycling safer and transforming them into a desirable way of moving in the city. A special focus on traffic safety was made, with the aim of sensitizing the population in order to reduce the risk of road accidents.

The final evaluation of the measure shows very encouraging results. The objectives of the measure were successfully achieved at higher level than expected. All important target groups were involved: local authorities, transport professionals, local citizens and their organizations, NGOs, disadvantaged groups, youth, academia and school children. Therefore, the new mobility measures foreseen in the CIVITAS ECCENTRIC project were widely discussed and promoted in order to change the mindset of all stakeholders.

The most important challenges in the implementation were related to the interest of the participants. After so many events since 2000 in the frames of various EU projects that have ended almost without visible results, the Bulgarian stakeholders were tired and disinterested. It was difficult to involve them in further project events.

The most important success factors of our measure were the good cooperation between CSDCS and the municipality, and our participative approach to the events proposing tailor-made seminars for each target group, together with perfect planning and conducting – well-organized distribution of the invitations, attractive agendas and catering and a lot of possibilities for the participants to express themselves and to share their opinion. A long-term co-operation with the local and regional media was also very helpful.

3 INNOVATIVE ASPECTS

Most of the measures are not only new for Ruse but are implemented for the first time in Bulgaria – the night trolley bus line, the P&R facility was a ticketing machine, etc. The other technical measures also contain a lot of innovative elements that will increase their safety and attractiveness.

The huge information and education campaign launched in the city and the strengthened public participation in the planning process contributed to the high level of awareness and acceptance of the new measures. A concept of MaaR (Mobility as a Right) was raised among the citizens of the peripheral urban regions claiming that the sustainable mobility is a human right and should be provided for all citizens, because the cities should be for all.

4 RESULTS AND CONCLUSIONS

In Ruse the main project results are related to enabling safe walking and cycling in Druzhdza district, reducing the car traffic and congestions, improving the air quality, decreasing the noise level and increasing the share of public transport use in the modal split. The expected impacts are:

- Reduced CO₂ emissions by 20% thus improving the public health and decrease the respiratory diseases
- Less traffic accidents leading to injuries and fatalities with 20%
- Improved accessibility of disadvantaged groups to public transport
- Increased participation of citizens in developing healthy mobility policies, services and traffic safety plans for suburban neighbourhoods.
- Changing the mobility mind-sets of citizens through direct and dialogue marketing and hands-on trainings, especially focusing on vulnerable groups (older people, school children, disabled, deaf people, etc.).

The Ruse mobility measures are already part of the Ruse SUMP (sustainable urban mobility plan) that is implemented for the first time in Bulgaria. The measures show their positive impact and are easily replicable

to other Bulgarian cities. The project already has 4 “follower” cities (Varna, Svishtov, Gabrovo and Veliko Tarnovo) that learn from its advanced experience making their neighborhoods more livable.

The city was approved to exchange experience with the Merida municipality (Mexico) under the interurban cooperation work package of the project CIVITAS ECCENTRIC.

5 REFERENCES

- CIVITAS ECCENTRIC Project (www.eccentric.eu)
- CERTU, 2013: 30 years of sustainable urban mobility plans (PDU) in France, CERTU Fact Sheet 2013/23, author Nicolas Merle, CERTU. Source: www.certu-catalogue.fr/mobilites-et-transport-le-point-sur-n-27-30-ans-de-pdu-en-france.html
- CiViTAS-CATALIST Project, 2012: CiViTAS Guide for the Urban Transport Professional – Results and Lessons of Long-Term Evaluation of the CIVITAS Initiative, 2012.
Sources: www.civitas.eu/guide_ebook/index.php and www.civitas-initiative.eu/docs/2086/CIVITAS_Guide_For_The_Urban_Transport_Professional.pdf
- Council of the European Union, 2010: Council conclusions on Action Plan on Urban Mobility, 3024th Transport, Telecommunications and Energy Council meeting, Luxembourg, 24 June 2010. Source: http://ec.europa.eu/transport/themes/urban/urban_mobility/doc/2010_06_24_apum_council_conclusions.pdf
- Helsinki region Transport, 2011: Helsinki Region Transport System Plan HLJ 2011; Source: www.hsl.fi/EN/hlj2011
- ProSPECTS Project, 2005: A Decision Makers’ Guidebook - Developing Sustainable Urban Land Use and Transport.Strategies, revised version. Source: www.ivv.tuwien.ac.at/fileadmin/mediapool-verkehrsplanung/Diverse/Forschung/International/PROSPECTS/DMG_English_Version_2005.pdf
- SUMP Guidelines: www.eltis.org/mobility-plans
- Poly-SUMP project: www.poly-sump.eu