Smart Parking Policy in Varna, Bulgaria

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1 ABSTRACT

Varna is the third largest city in Bulgaria and the biggest seaside resort on the Bulgarian Black Sea Coast. Situated strategically in the Gulf of Varna and having 350 000 inhabitants, Varna is an important centre for business, transportation, education, tourism and entertainment and is often called "the maritime capital of Bulgaria". The traffic is Varna is very intense and the old historical center is always full of on-street parked cars. In the high season the city is visited by over a million of tourists and the congestions, air pollution and noise are very high making the destination less attractive.

In 2015 CSDCS invited Varna to participate as a Bulgarian city in the CIVITAS PROSPERITY Project and both partners started its implementation in 2016. The behavior of the Varna decision-makers changed very fast and they decided to implement a SUMP. The new parking policy is an important part of the new planning process that started its implementation by the end of 2017 and will be opened in May 2018.

The paper describes the innovative solutions in the parking policy in the 2nd biggest city of Bulgaria that will be implemented for the first time in the country and will really make the maritime capital a city with a smart mobility.

Keywords: parking policy, blue zone, traffic, Bulgaria, Civitas Prosperity

2 SMART PARKING

Inspired by the advanced parking policies in developed EU countries, the local government decided to develop a large paid on-street parking system (blue zone divided on 2 parts) in the central part of the city thus encompassing the historical city center. The municipal company "Municipal Parks and Blue Zone" that is actually responsible for the operation and maintenance of 13 paid parking lots and the short-stay parking areas will manage the new Blue zone. The repatriation of improperly parked and end-of-life vehicles is also part of the company's obligations. Its staff will be increased with 105 people. Part of the staff was trained in the frames of PROSPERITY at special coaching sessions. The Varna Blue zone integrates a lot of innovations introduced for the first time not only in this city but in Bulgaria as a whole. They will be implemented on 2 stages:

2.1 Stage 1:

Total number of parking places - 3,000; Parking places for people with disabilities - 110; Parking places for electric cars - 20; Permits for residents in the area - 2500; Permits for companies in the area - 200; Business subscription in Zone 1 - 100; Business subscription outside Zone 1 - up to 150;

2.2 Stage 2:

Total number of parking places - 4,000; Parking places for people with disabilities - 150; Parking places for electric cars - 24; Permits for residents in the area - 3500; Permits for companies in the area - 100; Business subscription in Zone 2 - 100; Subscription outside of Zone 1 and Zone 2 - up to 50;

2.3 Smart solutions

The parking area will have shared and reserved places. The public parking spaces will be designed for residents, companies and city guests. Savings will be leased to companies and their number will be limited. Certain parking places will be marked and used only by police cars, the municipality, and disabled people. The working time will be from 9:00 to 19:00 h. On weekends and holidays parking will be free of charge.

The project envisages the installation of road and information signs, the laying of a horizontal marking; purchase of light commercial electric cars for parking control; purchase and installation of charging stations for electric vehicles; technical means of brackets; purchase of hybrid cars for teams in charge of parking "Business Subscription" and "Paid Parking"; purchase of specialized Spider-type cars; purchase of hardware and software for call center equipment.

977

The value of the project is $\notin 2705000$, as the municipal budget will be invested $\notin 572000$ and the remaining $\notin 2133000$ through a bank loan from the EBRD.

3 INNOVATIVE ASPECTS

Parking and payment control will be based on a check on car registration numbers. Street parking management activities will be centralized thus ensuring the sharing of the necessary data on interconnected activities. Street parking activities will be controlled by the Municipal Company "Park and Blue Zone".

The tariff for one hour stay in the blue zone will be $\in 0.5$. Only in Varna there will be an option topay for a half hour stay. The payment will be made via a mobile app where the customer will have its own profile. It will be used also to pay for public transport or bike rentals, as well as for shopping in a hundred retail outlets in the central area (equipped with a tablet and a printer) only by telling to the vendor the registration number of his car.

Those living in the Blue zone will benefit from preferences paying \notin 2.5 per month or \notin 28 per year fo the first car. For a second car the monthly fee will be \notin 5 and the annual fee - \notin 56.

For office subscriptions in the blue zone the cost is \in 180 per month and \in 1 970 per year.

4 RESULTS ACHIEVED

The expected results of the new parking policy are:

The introduction of the Blue zone creates new 105 green jobs. The expected municipal income for 2018-20 from the Blue zone is $\in 8350\ 000\ (2018 - \notin 1\ 310\ \mathbf{0}0,\ 2019 - \notin 3\ 470\ 000\ and\ 2020 - \notin 3\ 570\ 000).$

The cars use in city centre will be reduced. For the first time the citizens will have to pay for on-street parking after decades of free using of public space. This will demotivate many of them to go to the city center by car and will increase the use of public transport at the same time decreasing the car flow.

The preliminary calculations show possible reducing with 30% of the congestions, noise, air pollution and road accidents in city central part. The narrow streets and curved roads in the historical part of Varna being full of parked cars caused many road accidents.

It will strengthen the use of e-cars, because their parking in the Blue zone will be free-of-charge and there will be 11 charging stations.

Finally it will improve the landscape, thus increasing the attractiveness of the public spaces and making Varna more attractive destination for tourists.

5 CONCLUSIONS

Paid parking zones are always treated by citizens as an additional way of collecting money by the municipality. When there is plan for zoning, public discussion became very crucial. In Varna, the decision makers were aware, that it was very controversial decision and made a lot of efforts together with CSDCS to raise the public awareness about the necessity of this step, as well as about the benefits of SUMP implementation. 60% of citizens were positive about the Blue zone and the expectations are that this percent will increase with its implementation.

The Blue zone initiative is building capacity of PROSPERITY project partners and followers to implement measures to manage parking and increase the political acceptability of parking management but also prepares the team for SUMP development and implementation, because the parking plan is not an end by itself but leverage for better mobility. It is not only reducing the car traffic and parking burden in the city center making room for pedestrians but it increases the use of sustainable modes of transportation (by public transport, biking and walking) thus performing an important modal shift in the resort city of Varna.

6 REFERENCES

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