

SERBIA

Smart Cities in Serbia

The Smart City sector in Serbia is not yet fully introduced in the country. There are many small projects and significant technological advances are appearing all over the country. The city of Belgrade, as well as Novi Sad, Kragujevac and Nis made the biggest advancements in this area, but there are still many challenges and need for improvement.

The Government of Serbia has set up the digital transformation as **one of the most important priorities**. Having this in mind and considering technological, economic and population trends which shape the development of cities, it is clear the development of smart cities is to become one of the priorities of local governments in the years to come.

In Serbia, there are several initiatives in the fields of smart mobility, digitization of public services, integration of new intelligent systems, public lighting, charging stations for electric vehicles etc. There are also some projects in area of smart energy: smart public lightening, energy efficiency in public building as well as projects in smart communication: city cloud data centers, public WIFI access, smart benches etc. There are several smart mobility projects in cities like Belgrade, Novi Sad, Nis , Kragujevac, Krusevac as well as smart security projects connected with traffic surveillance and video surveillance and some projects in smart environment (for example an app for detection of unorganized landfills) Given that Serbia is still a small market, smart solutions that are applicable in all cities represent a real "smart" potential. In order to make these solutions feasible, it is necessary to have standardized processes, both in collecting data, as well as in the provision of services. One of the examples of an application which merged all of the above is "Parking maniac", parking app automatically locating places in the paid parking zones via mobile networks, and for some cities and parking zones using GPS sensors.

The authorities should make their data publicly available in machine-readable format and thus enable private companies, but also individuals to analyze data and create applications that could improve services in different cities. One from the first steps in creating smart communities is the inclusion of citizens in decision-making. The standardization, both of processes and data, is one of the most important prerequisites for creating smart communities, so under Open Government Partnership Group, Serbia is currently implementing 12 commitments from their 2020-2022 action plan. This action plan features commitments aimed at improvements in the areas of implementing public consultations, delivery of public services and providing access to information.

Serbia has recognized **the importance of digitalization and the development of e-government**, which has contributed to significant development in this area in the past few years. Digitalization, as one of the priorities of the Government of the Republic of Serbia, is transforming the way public administration works and raising its economy, transparency, and quality of work. The open data portal www.data.gov.rs is a central place where open data of public institutions are united and made available to citizens, private and non-governmental sector. The number of public institutions and information available on the Portal has doubled in just four months since the launch of the platform. The goal is to fully digitalize the work of public administration, in order to enable the reception, production and storage of electronic documents.

Open Data Hub <https://hub.data.gov.rs> was officially launched in December 2021. Open Data Hub is a one-stop shop for all the participants in the open-data ecosystem in Serbia (individuals, startups, companies, experts, institutions, media, civil sector), offering support in tapping into and using open data and ancillary processes. It came into existence as part of the Open Data Initiative, which was launched in Serbia in 2015. / The goal of this hub is to connect individuals, organizations, government institutions, cities, and municipalities to promote better development of public services, e-government services and initiatives based on open data

Serbia set down the **Strategy for the Development of Artificial Intelligence** for the period from 2020 to 2025, with the aim of using artificial intelligence in the function of economic growth, employment, and a better quality of life. Its application is envisaged in education, economics, public sector services and other areas. In Serbia, artificial intelligence is mostly developed in the field of industry and agriculture. In agriculture, different estimates are obtained, from what the yield will be, to how to make it higher. In industry, a part of artificial intelligence is used in robotics to automate physically demanding and repetitive processes.

In the field of development of artificial intelligence, Serbia is cooperating with China within the global initiative "Belt and Road". At the last summit of China and the countries of Central and Eastern Europe, among other things, joint activities in the development of smart cities were agreed upon.

According to a study conducted by the Friedrich Naumann Freedom Foundation (FNF) in municipalities across Serbia in September and October 2020, smart city solutions in most provinces in Serbia are either not interlocking between cities, or it turns out that they did not adopt a city solution. Most (48%) municipalities that introduced smart city solutions implemented smart financial solutions in the form of electronic payments. In the second place are smart communication projects such as Wi-Fi access and cloud data centers (39%), followed by smart water management (26%) and smart energy (19%)

Examples of smart cities projects mentioned in this study:

- **Smart Communication:**
Wi-Fi tree (City of Krusevac, Municipality of Gornji Milanovac)
City data center (City of Kragujevac) Public wireless internet access, hot spot, smart benches (City of Belgrade, Municipalities of Priboj, Velika Plana, Sabac, Irig, Pancevo)
- **Smart Mobility:**
Google Transit/ KGBUS.INFO - City Kragujevac
Island for sustainable traffic -City of Pancevo
Sustainable Urban Plan of Mobility (Sabac, Krusevac)
- **Open data** (Belgrade, Kragujevac, Nisa, Sabac, Pancevo, Priboj) .

The survey on the capacity for innovation and on resilience of local communities in Serbia, conducted in September and October 2020, showed that local self-government units see the introduction of the Smart City concept as a **very positive trend**.

The Smart Cities sector in Serbia is still in its early stage and promises rapid evolution, so there is a need for various solutions and know-how transfer in this area.

Main market players

- <http://strawberrye.com/>
- <https://dunavnet.eu/>
- <https://aigo.rs/>
- <https://elnosgroup.com/en/home-3/>
- <http://www.entjuba.rs/en/>
- <https://www.ep-entel.com/>
- www.enel.so.rs
- <https://www.meterandcontrol.com/>
- www.sitel.co.rs
- <http://www.ewg.rs/sr/?page=kontakt>
- www.elektromontaza.co.rs
- www.netinvest.rs
- www.ep-entel.com
- www.energynet.co.rs
- <https://rs.schreder.com/sr>
- <https://consumer.huawei.com/rs/support/>
- <https://www.se.com/rs/sr/>
- <https://new.siemens.com/rs/sr/kompanija/about.html>

Main events

Smart City Festival <https://www.festival.smartcity.education/>

Useful links

- <http://www.skgo.org/>
- <https://www.ite.gov.rs>
- <https://serbian.tech/>
- <https://www.palgosmart.org/>
- open data (www.data.gov.rs)