

DONOSTIA-SAN SEBASTIÁN, PILOT CITY IN THE BODAH PROJECT

The city of Donostia-San Sebastián, represented by Fomento de San Sebastián is taking part in the European BODAH (Big and Open Data for Atlantic Heritage) project of the Interreg Atlantic Area programme. The city is one of the 4 pilot cities in the project together with Pau, Cork and Santiago de Compostela which aims to reinforce a more holistic sustainable development of the flow of citizens and tourism, and the redistribution of socio-economic effects through the use of smart technologies and data.

The project has the participation of eight different entities of Spain, France, Portugal and United Kingdom and plans to develop new tools, solutions and know-how in accordance with current sectorial changes and the characteristics of smart destinations, that are able to gather, generate, integrate and analyse information and turn this into behavioural changes and decision-making processes.

BODAH has come about under the umbrella of the SmartKalea initiative led by Fomento de San Sebastián. SmartKalea is a pilot project to implement smart measures that tries to improve the quality of urban life through sustainable technologically advanced solutions. To do this, actions are carried out in the fields of Energy Efficiency, ICTs, infrastructure sustainability or monitoring. The project is characterised by having an innovative public-private collaboration model in which various municipal departments, technology companies, residents and shops that take part in the project work together.

The SmartKalea initiative began in 2014 in the Calle Mayor de Donostia, the emblematic pedestrian Street located in the old part of San Sebastián. Since then, the Project has been extended to the entire Old Part of San Sebastián and has been replicated in other neighbourhoods and streets in the city such as Altza and the Avenida Sancho el Sabio. Now, throughout 2021, SmartKalea is being extended to the Txomin Enea neighbourhood, as well as continuing with activities in other areas.

In particular, thanks to the BODAH project, we are working on monitoring the influx of people who walk around the Old Part in San Sebastián. Through the SmartKalea Project we have already deployed stereoscopic sensors to count people that record the number of people coming into and going out of the main access routes to the Old Part of San Sebastián. These sensors are anonymous, that is, they do not detect the people that walk along the street, they only record the number of people detected every 15 minutes in either of the two directions, distinguishing between the people going out and those going into the Old Part. Thanks to the BODAH project, the deployment of counting sensors will be extended in order to record the people who pass through other main streets in the Old Part of San Sebastián. The BODAH Project has also allowed us to improve the current features of the sensors, introducing the technology required in the sensors to distinguish between the adults and children who walk along the street. This will enable us to know the percentage of adults compared to children that walk along each street at any time of day and how this varies at different times or days of the week, on public holidays, etc.

Together with this, as part of SmartKalea, cameras to count vehicles have also been set up at one of the main access routes into the city, in the Calle Sancho el Sabio. This allows us to know the number of vehicles coming in and going out of the city through this area and to see how it varies throughout the day and on weekdays.

On the other hand, as part of the project, environmental sensors are also being installed that allow us to measure air quality in different places. To be precise, the parameters that are being monitored are NO₂, O₃, CO, SO₂, H₂S, PM_{2.5}, PM₁₀ and the AQI.

All this information is recorded in the SmartKalea Project integration platform, which cross-referenced with other sources of information such as climatology and public holidays are making it possible to obtain value-added information. Part of this information is also published on the project web page

(<http://www.fomentosansebastian.eus/smartkalea/es/monitorizacion>) in order to share this information with citizens.

All this information enables the BODAH Project to gather highly interesting segregated Big Data, which can allow us to calculate and analyse the flow of people in the city and in the Old Part in particular, in order to provide technological solutions and tools aimed at improving the city and the quality of life of its citizens.

Together with Fomento de San Sebastián, in the project take part Turismo de Santiago (project coordinator), Fundación Santa María la Real, Universidade Nova de Lisboa, Cork Institute of Technology, Glasgow Caledonian University and Bangor University. The project that is framed under Interreg Atlantic Area program has a total budget of 1.573.373€, of which 75% are provided by the European Regional Development Fund (ERDF).