

NEWSLETTER

Project

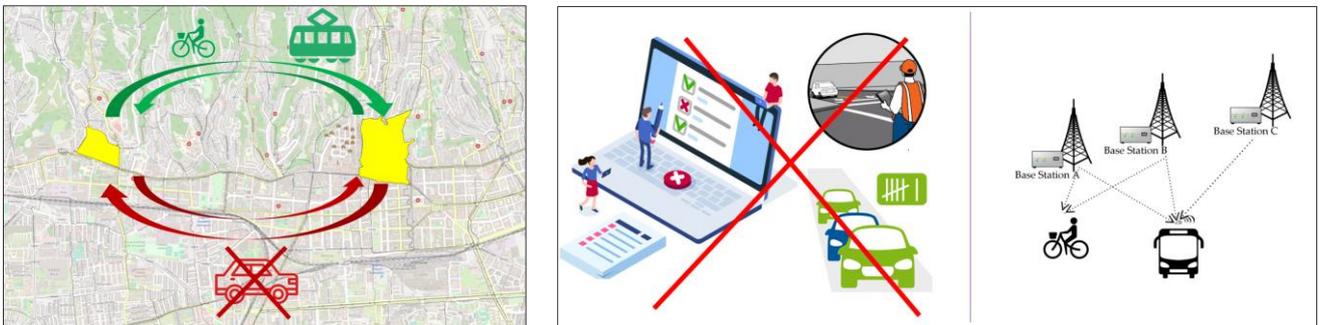
Sustainable Urban Mobility Boost Smart Toolbox Upgrade (SUMBooST2)

EIT Urban Mobility

European Institute of Innovation and Technology (EIT) is an independent body of the European Union set up in 2008 to deliver innovation across Europe. EIT Urban Mobility is set up in 2019 to encourage positive changes in the way people move around cities to make them more liveable places. Mission is to use cities as living labs and to demonstrate how new technologies can work to solve real problems in real cities by transporting people, freight, and waste in smarter ways.

Project idea

The main problem addressed by the project is the globally frequent overuse of unsustainable transport modes in urban areas. The goal and the general idea of the SUMBooST2 project were to create a globally applicable methodology/toolbox for boosting sustainable urban mobility planning based on real mobility demand extracted from big data sets gathered from the telecom operator.



Project results

The main result of the SUMBooST2 project is the upgraded toolbox with enhanced functionality, wider applicability and better accuracy. The initial toolbox was developed in the 2020 with an algorithm for the extraction of the mobility data from the big data set. The algorithm was designed to extract origin – destination matrices for the trips made by passenger car. The toolbox was successfully applied and validated in one pilot city, City of Rijeka.

SUMBooST2 project is an upgrade of the initial SUMBooST 2020 project. The initial algorithm for the detection of trips made by passenger car is refined and upgraded to a higher level of accuracy. The most significant upgrades are the new algorithms for detecting active modes of transport (cycling and walking) and public transport. Upgraded toolbox with new algorithms is validated in three different cities with different urban area specifics, proving the toolbox's wide applicability.

In the framework of the SUMBooST2 project, data on positions and position changes of mobile phones in three cities included in the project (Cities of Rijeka, Dubrovnik, and Zagreb) was collected. The data was gathered from the telecom operator anonymously following GDPR regulations. Algorithms for the detection of trips and transportation modes were



validated with the data set collected by traditional field research. Using developed algorithms, origin-destination matrices were created for one typical day for all trips and for each mode of transport separately. Origin – destination matrices were analysed, and pilot zone pairs were determined for each pilot city. The goal was to identify a positive and negative example of a zone pair based on the mobility parameters between the two zones. Positive zone pairs are those with an above average use of sustainable modes of transport for the mobility in between two zones. That type of mobility has to be improved and further encouraged. Negative zone pairs are those with an above average use of passenger cars between the zones. That kind of mobility has to be reduced and shifted to sustainable modes. For the identified zone pairs, the project team proposed solutions that could increase the use of sustainable modes of transport. Each solution was presented to local stakeholders through focus groups and to the local public through an online survey. Both local stakeholders and the local public gave their positive feedback on proposed solutions.

SUMBooST2 project resulted in upgraded methodology/toolbox for the development of sustainable urban mobility solutions. The main advantage of upgraded methodology is that it defines the 'as is' state of traffic in a more accurate, simple and cheaper way than traditional surveying methods. It proved that innovative methods of collecting data can replace the data obtained by conducting complex and challenging surveys and traffic counting.

Partners

University of Zagreb Faculty of Transport and Traffic Sciences is a lead organisation in the consortium. Faculty is the leading high education as well as scientific and research institution in the field of transport and traffic engineering in Croatia. Faculty provides services for the cities and industry in urban mobility and has developed the first Sustainable Urban Mobility Plans for Croatian cities and cities in neighbouring countries.

Ericsson Nikola Tesla is leading ICT company that has expertise in telecom core, radio and data network, big data and in transport and traffic industry segment. Ericsson Nikola Tesla has experience, references, capabilities, and resources to understand and process Mobile Networks big data sets and produce new data insights applicable in business verticals.

City of Rijeka is the largest Croatian port city, the third largest city in Croatia and the administrative centre of the Primorje-Gorski Kotar County.

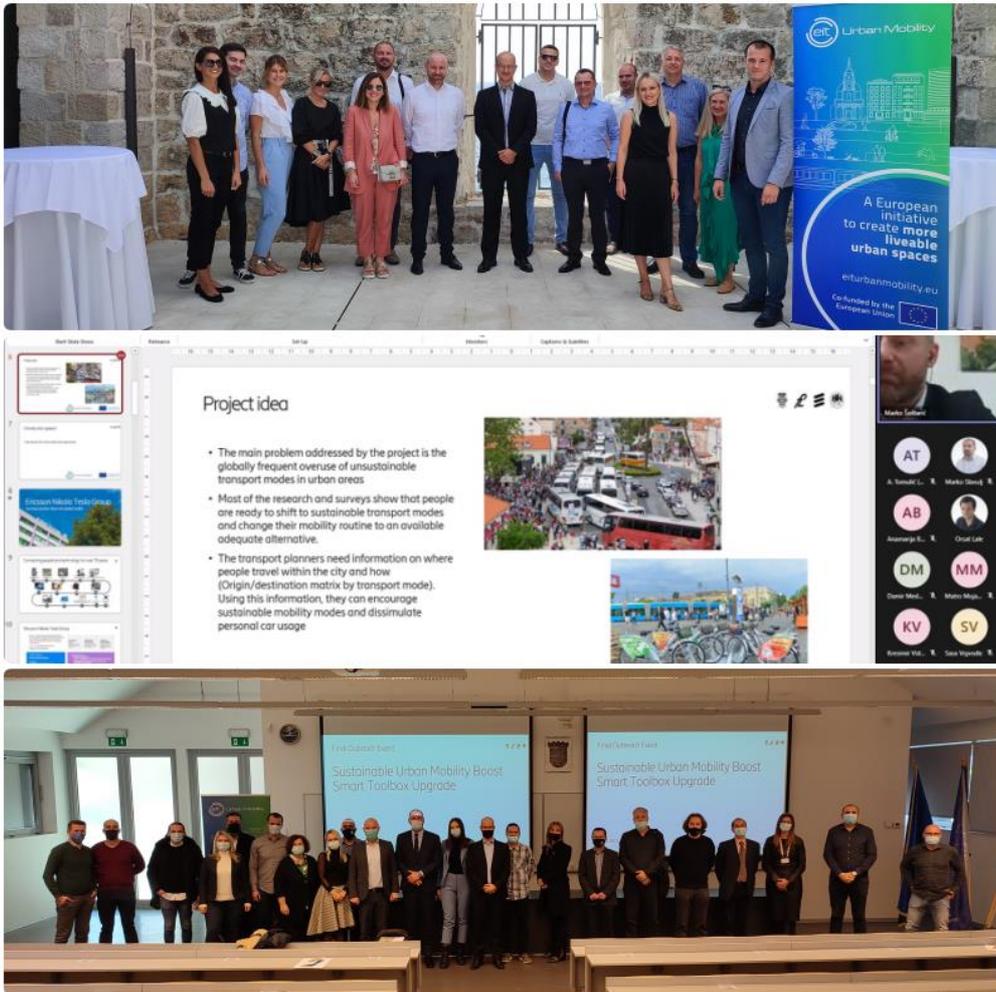
City of Dubrovnik is the touristic center of the Adriatic. It is the administrative centre of the Dubrovnik-Neretva County and one of the most specific cities in terms of transport system and connectivity.

Outreach events

During the project implementation, three outreach events were held. The main objective of the outreach events was to raise awareness of EIT Urban Mobility, to inform local stakeholders and public of EIT Urban Mobility activities and to present and promote SUMBooST2 project. First outreach event was held in the City of Dubrovnik. At this event the last year's successfully finished project SUMBooST and its main results, as well as the project idea and activities of SUMBooST2 were presented. The second outreach event was held online in which the detected zone pairs were presented for each pilot city. Third and final outreach event was held in the City of Zagreb at the Faculty of Transport and Traffic Sciences. An overview of the whole project with the main activities, milestones and outputs was presented with the main focus on the list of final solutions and the feedback received from the focus groups and public

Vision and goals of SUMBooST2 project, as well as methodology based on the big data and main results were presented during all events. More information can be found on project official website: <https://www.fpz.unizg.hr/sumboost/>





Project details

Budget: 193.400,00 €
 EIT funding: 153.571,00 €

Start date: 01 January 2021
 End date: 31 December 2021

