

HERIT DATA PROJECT



DUBROVNIK, CROATIA

HERIT DATA Pilot site

EXISTING NEED / ISSUE

Increased number of visitors and tourism related activities which have happened in Dubrovnik over the last couple of years affected the existing infrastructure. This resulted in transportation challenges and impacted natural and cultural resources. Consequently, these high numbers of visitors influence on citizens' daily routines and quality of life, while decreasing visitors' experience of the city.

DECISION MAKING PROCESS

In 2015, the UNESCO/ICOMOS Reactive Monitoring Mission proposed to the City of Dubrovnik to monitor the flows of people in the city's historic centre, due to the overcrowding and to the increase of tourism activities. The City of Dubrovnik contracted Dubrovnik Development Agency, DURA, to look for the most suitable solution using IoT technology and external expertise. At that time, there were no ready-made (off-the-shelf) solutions on the market, so the appropriate solution was delivered and installed by local IT companies. The data collected using the installed system is analysed by city officials to make smarter and more rational decisions about pedestrian traffic management and the delivery and supply of the historic core. Joining the HERIT-DATA project as a pilot site allowed Dubrovnik to create additional solutions, and this complemented the ongoing process.

METHODOLOGY

Six cameras monitoring the people passing through access points of the historic core. The cameras are placed at all entrances and exits and the data collected is updated every 15 minutes. The cameras have a built-in processor that pre-processes the image on site and sends to the internet server only one number of people entering and leaving the entrances of the old town. The system does not recognise faces, but distinguishes people from objects (luggage, pets...). It calculates the number of entries minus the number of exits. The data is often presented using Excel charts that can be easily readable.

MEASURES TAKEN

Once all the data was processed, Dubrovnik implemented two types of measures. The first one was to renegotiate the number of cruise ships that arrive at the city's port at the same time, in order to manage number of people disembarking from the cruise ships and creating pressure points in the city center. The second action was to manage visitors' access to the sites that were overcrowded, especially at certain periods in the day, for example in morning hours. Another relevant project regarding sustainable tourism management in Dubrovnik is Respect the City (RTC) project, which is a multidisciplinary strategic destination management project with an action plan. These actions have helped improve visitors' experience and data is still being analysed in order to keep improving and managing the destination.

Entity behind this pilot site: City of Dubrovnik and Dubrovnik development agency DURA