

SMART POINTS – CONCEPT AND IMPLEMENTATION

Comune di Bolzano - Ufficio Mobilità



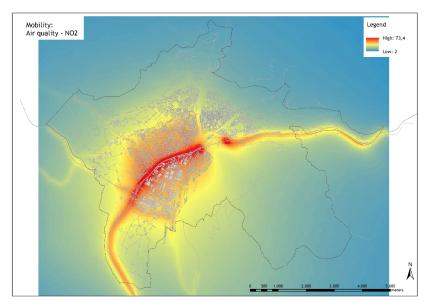
This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 609019

TRAFFIC MANAGEMENT CENTRE OF BOLZANO

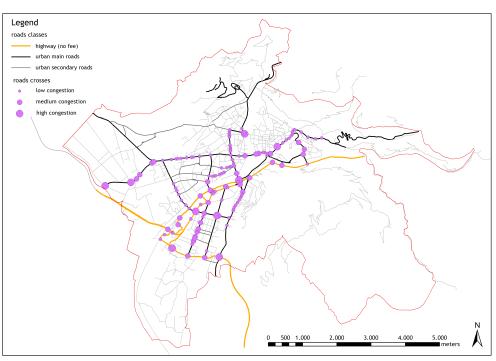


Analysis of the urban area and of the distribution of critical points in order to install new sensors for traffic and environmental monitoring:

- critical situations due to traffic congestions
- air quality



Air quality (pollution due to traffic emissions) – elaborazione \mbox{CISMA}

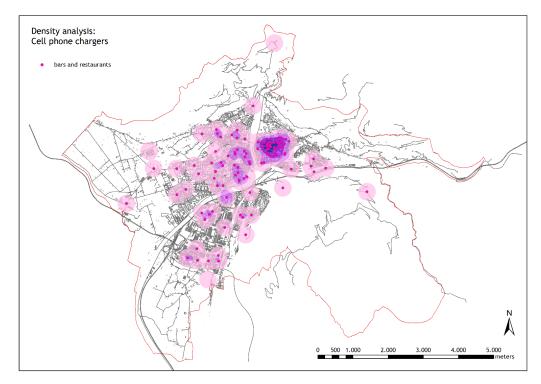


Traffic congestions



Analysis of the urban area and of the distribution of points of interest in order to distribute services for tourists and citizens:

- charging stations that are already installed
- points of interests for citizens and tourists (Bar, restaurants train station/bus station hospital ecc.)

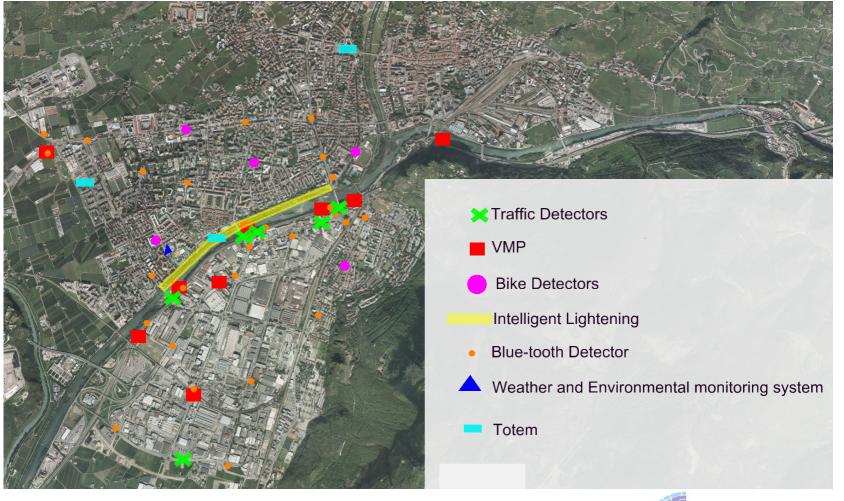


Distribution of points of interest (bar, restaurants – train station – bus station – cable car – airport - hospital



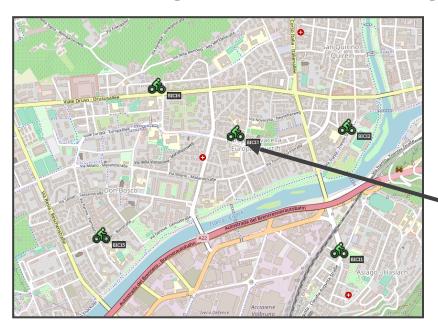
Distribution of the new sensors – smart points:

Budget SMART POINTS: 413.439,99 €





Bike-monitoring sensors:4 monitoring stations along the cycling lanes







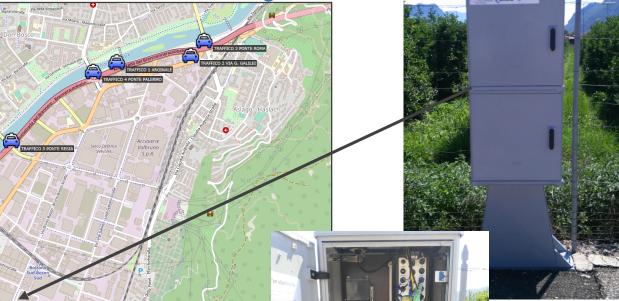
Sinfonia

Traffic-monitoring sensors: 6 monitoring stations and 26 bluetooth

detectors

-Long-time traffic planning

- real-time traffic monitoring



Box bluetooth detector

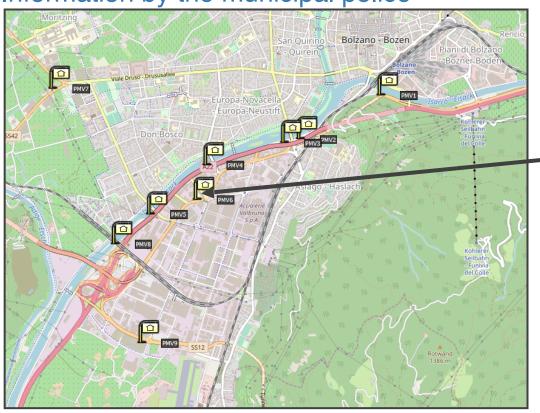




Variable Message Panels: 9 panels

-Traffic management

- Information by the municipal police







Air Quality Monitoring: 1 compact monitoring station

Environmental monitoring system, mesure of air

pollution:

- NO₂
- NOx
- CO
- O₃
- PM_{2.5}



Sensors for meteorological data:

- Temperature and relative humidity
- Wind Speed and direction
- Global solar radiation





Intelligent lighting:

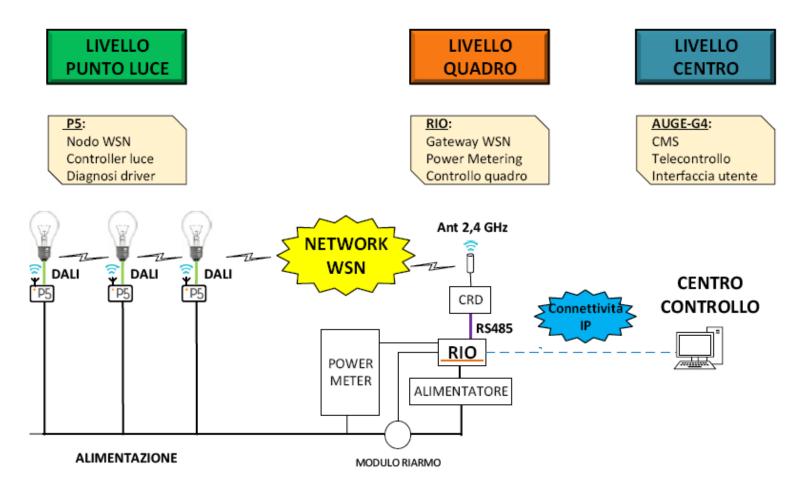
- bicycle lane along the river in a green area: connection to the residential area of the city but isolated
- smart-lighting: detectors along the bicycle lane higher lighting when a cyclist is arriving lower lighting when nobody is there





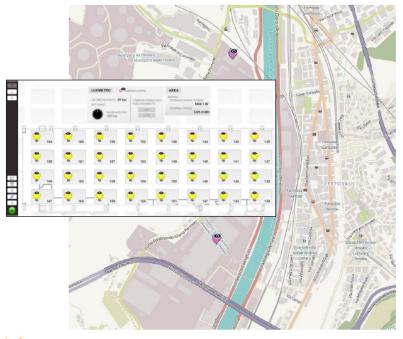


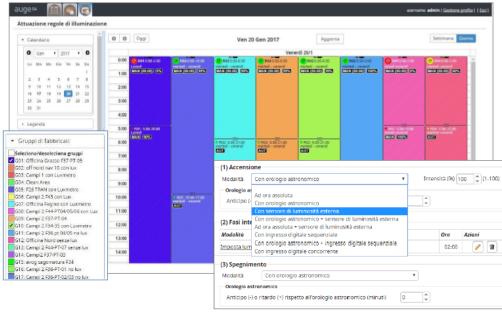
Architecture of the Algorab smart lighting system





Software of the Algorab smart lighting system







Some pictures of the installed hardware:

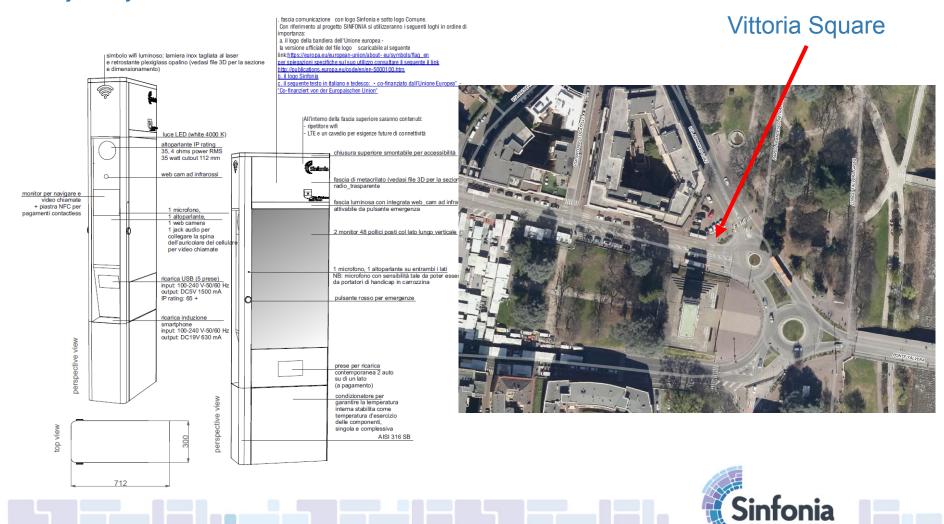


Detectors



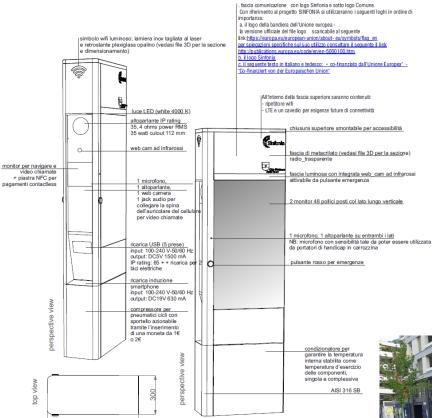
Totem A - Parking Area

Project by IUAV



Totem B - Urban Area

Project by IUAV



Maria Montessori Square







Totem C - Green Area

Project by IUAV









Totem A – Parking Area







<u>Totem B – Urban Area</u>





<u>Totem C – Green Area</u>





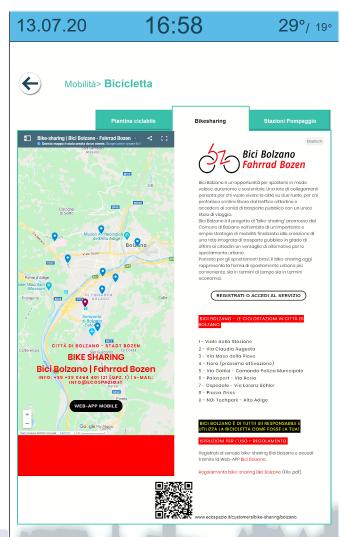
Contents of the totem: informations about mobility, environment, turism, projects, useful apps





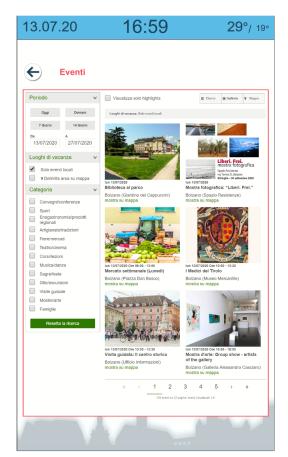
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Contents of the totem: informations about mobility, environment, turism, projects, useful apps









THANK YOU

Comune di Bolzano - Ufficio Mobilità

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