



Antwerp Pilot on User Behaviour

City Officials need to get an overview of the city according to relevant aspects to make corresponding decisions. The services and the usage of the city is one of the relevant aspects. Thus, the Dashboard Life of Antwerp has been focussed on:

- presenting interactive origin destination flows based on Mobile App data, with the aim of understanding how the users of the App exploited the city, where they came, when and in which areas, and who of them performed the actions and where;
- providing a nicer and more interactive tool to access at city services (for many aspects it could be suitable for end users);
- monitoring with social media of Twitter data including real time sentiment analysis, that can be used for Early Warning, and global moods assessment;
- understanding city users' moods via social media monitoring: study the social media Twitter channels with real time sentiment analysis,
 - which are the critical services in a given moment, are there emergent services, what it is happening now in the city;
 - be aware about the appreciation of city services and mood.
- Contextualise with respect to major services and opportunities as
 - entertainment events in the area;
 - public transport, observing the time schedule and stops;
 - simplified interactive view about air quality values and heatmaps, weather conditions;
 - observe general POI, services in the city.

Moreover, a number of other information are accessible about mobility, transport, personal marking of locations, visiting city, access to saved personal data, sharing position with friends, etc.

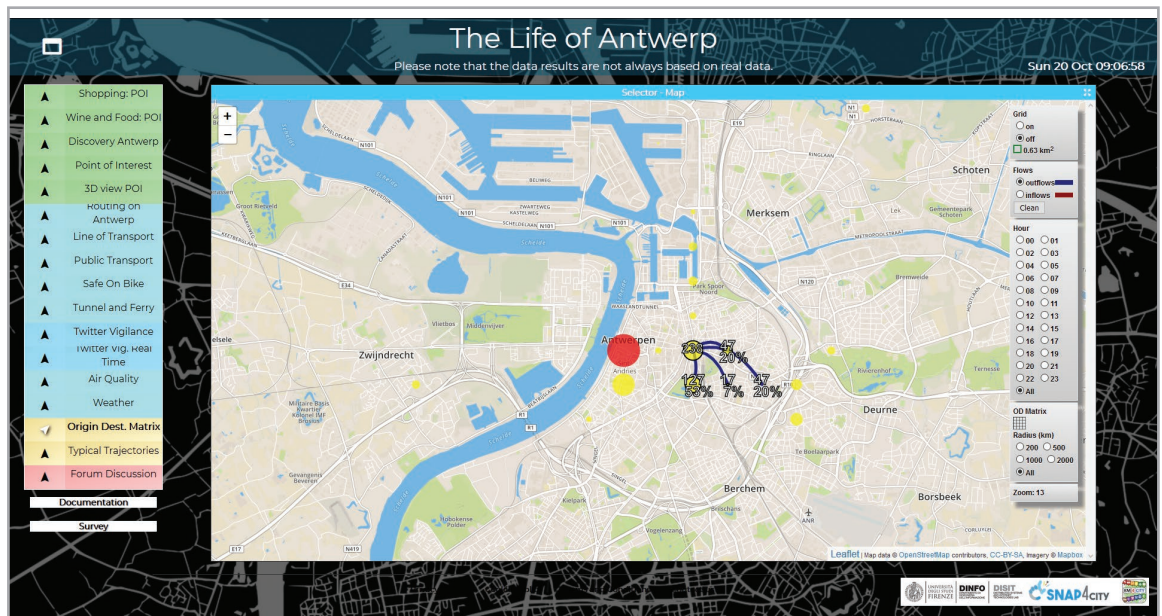
Monitoring Users' Behaviour via Mobile App



Hot Places

Origin Destination Matrices

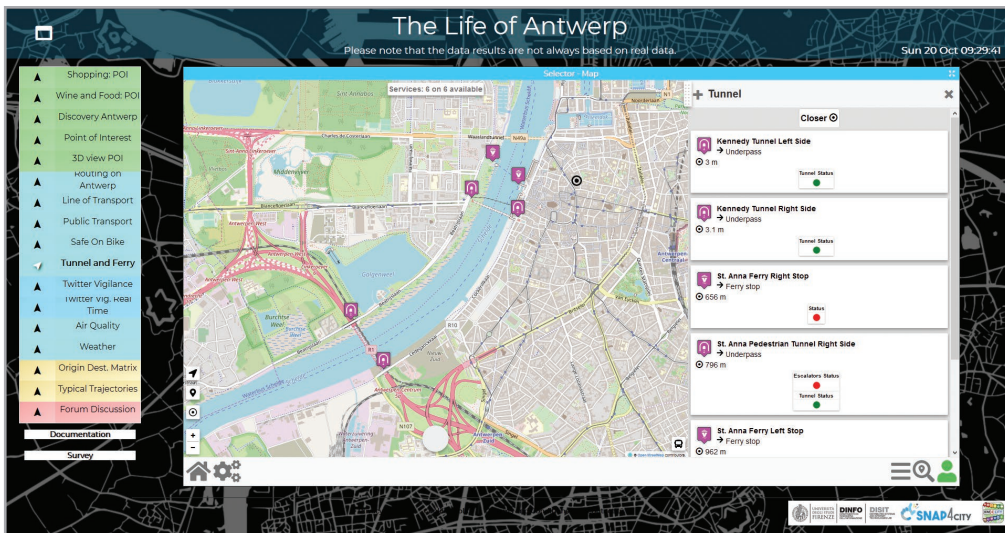
Trajectories



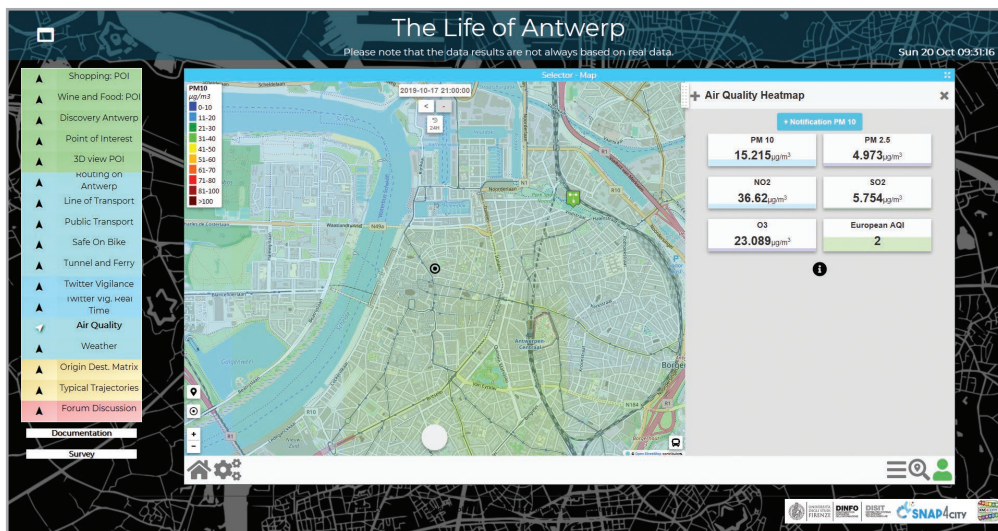
<https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MTcwNg==>

Dashboards are accessible for the Snap4City users belonging to Antwerp Organization. Dashboards provides also overview of environmental data in the city for each our and animations of the day.

The Snap4City has created the Antwerp organization, ingested the data and realized the data analytics, create the mobile App, the MicroApplications and the all the tools needed to create the solution and put in production. Snap4City has been developed in the context of Select4Cities PCP mainly managed by FHV in the context of Helsinki. Snap4City semantically aggregates any kind of data coming from any sources and semantically aggregates them in compliance with the smart city ontology Km4City (<https://www.km4city.org>).



In the figure above the status of the Tunnels and ferry in real time to across the river.



In the snapshot, you can see the values of the environmental data in the selected location and the heatmap chosen. In addition, a view on Antwerp volume of Tweets and their related metrics is also accessible from the same dashboard on which one can identify major events and moods.

The mobile app can be installed from Google Play or Apple Store, the Dashboards are accessible from <https://www.snap4city.org> in the public set. On the dashboards, you can navigate on actual value of environmental data, and you can see the 24H animations of the day.

Smart Tunnel Monitoring Real time Services

Panels with Multiple views for Totems

Other examples and connected scenarios:

- Antwerp List of Services and OnLine Data: <https://www.snap4city.org/363>
- Data Analytics: the cases of Antwerp and Helsinki, and general views: <https://www.snap4city.org/524>
- Dashboard Info: Antwerp Data Overview (Multi Data H2): <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MTQwNw==>
- Dashboard Info: The Life of Antwerp <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MTcwNg==>
- Dashboard Info: Antwerp Business Operator example: <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MTc0NQ==>
- Dashboard Info: Antwerp vs Helsinki comparison <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MTc1Ng==>
- Dashboard Info: Antwerp vs Florence Comparison <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MTc1Nw==>
- PAX Counters in Antwerp: <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MjEwNA==>
- A mobile PAX Counter dashboard in Antwerp: <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MjE2Mw==>
- Monitoring Dashboard of MAS Museum in Antwerp: <https://www.snap4city.org/dashboardSmartCity/view/index.php?iddasboard=MjE4MQ==>
- Solution: using PAX Counters, monitoring museum and events: <https://www.snap4city.org/518>

Extended version accessible from: <https://www.snap4city.org/527>

Contact: <https://www.snap4city.org>

Partners: Select4Cities, DIGIPOLIS, IMEC