obsAIRveYourBusiness
Air Quality Monitoring for Cities

*The project is supported by the EU Competitive and Innovation Framework Programme (CIP)
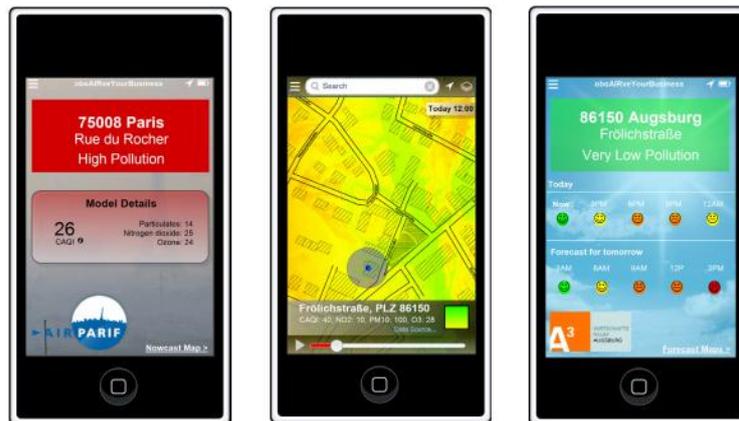and is part of the European Mobility Industries Alliance (EMMIA)*

Localised information and forecast on air quality

A service dedicated to citizens

ObsAIRveYourBusiness Service

An easy-to-use mobile app for citizens and city authorities provides the latest information and forecast on air pollution in the neighbourhood. obsAIRveYourBusiness focuses on building a tailored service resulting in individually adapted mobile apps for cities in Europe. The service delivers easily understandable and **detailed air quality information on street level**. The service translates satellite and in-situ data into usable and individually localized information for citizens about the major air pollutants: ozone (O_3), nitrogen dioxide (NO_2) and particulate matter with a particle diameter of up to 10 µm (PM_{10}). This approach allows for the first time to provide **air quality information with high spatial resolution** through smartphone Apps to citizens.

The service has been already defined and implemented in two model cities: Augsburg and Paris agglomeration. As the target cities are different, two distinct strategies concerning air quality modelling have been applied.

obsAIRveYourBusiness application

obsAIRveYourBusiness is aiming to provide an air quality service for the market: it enables cities, regions and other public stakeholders to start using high resolution data for air quality management within cities and is **looking forward to expand the service** to new regions

The European Commission, Directorate-General (DG) for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) funds this project within the European Mobile & Mobility Industry Alliance (EMMIA) initiative.

ROADSHOWS

The obsAIRveYourBusiness consortium offers the opportunity to present the service in three selected EU cities in the months of September and October 2015

The "model city" experience of Augsburg and Paris will be shown together with service features tailored to the hosting city

Interested local administrations are requested to apply following the rules below, before the 14th of September 2015

The Roadshow

The Roadshow will be a brief and intense occasion for discussing between experts the innovative solutions provided by obsAIRveYourBusiness service, the technological barriers and challenges in accommodating and meeting the needs of different local territories, on the base of the existing local and regional air quality information and forecasting services. The event will involve the experts of the obsAIRveYour Business project team together with municipal and regional representatives, regional and national agencies and public transport managers.

The Roadshow event will provide to the local administrations the full set of information in order to establish an innovative system for air quality information, possibly in addition or in supplementing existing services already in place.

Objectives of the roadshows

➢ Present the applications developed by the obsAIRveYourBusiness project
➢ Present the two strategies implemented in Paris and Augsburg.
➢ Discuss the situation of air quality monitoring/forecasting in the hosting territory
➢ Define the needs for a potential development of the application for the selected city
➢ Start creating a network among key innovative players

Roadshows, lasting in principle half day, will be held during the months of September/October 2015. The three participating cities will be selected between those who have expressed their interest.

Regional and/or municipal administrations interested in hosting obsAIRveYourBusiness are asked to:

➢ Express their interest **before the 14th of September 2015**, sending an email to **info@obsairveyourbusiness.eu** specifying a proposal for dates, a name of a reference person to be contacted including a short presentation of the presence/absence of an air quality monitoring & forecasting service and its use. Also the local stakeholders to be included in the roadshow should be described briefly.
➢ When selected, define in cooperation with the project team the agenda of the Roadshow, involving local speakers and expertise relating to air quality monitoring and forecasting
➢ Invite local participants, key stakeholders from policy makers, academia, and entrepreneurs.
➢ Introduce the administration they represent and their air quality monitoring and forecasting services
➢ Discuss the potential use of the application

The host administration would be expected to take over logistics of providing a proper venue for the roadshow event. Some participation in the costs for catering services, if any, could be provided by the project.
The presentation will be mainly given in English. Possible dialogue interactions can be in German, in French or in Italian. A full translation service (if considered necessary) should be provided by the host.

The dissemination material such as the agenda, brochure and roll up is provided by the project consortium in collaboration with the hosting city

Some options for the tailoring of the service are presented in the next two pages,

Tailored Service for the customer

The project offers the use of the know-how and the service infrastructure for stakeholders who aim to disseminate information on local air quality. Due to the modularity of the infrastructure the services cover a wide range and are offered in a customized way. The service consists of several building blocks that all together ensure the delivery of air quality data for urban areas. The blocks are commonly grouped as:

- **obsAIRveYB Backend:** the platform includes data collection system, forecast data and modelling tools.

- **obsAIRve Front-end:** the mobile application tool is designed and developed to visualize the information related to AQ in a mobile environment.

We are ready to explore the applicability of the ObsAIRveYourBusiness solution with potential users in deeper detail. As a starting point, some options are presented on the following.

Option 1 – Data analysis service – Feasibility study

Task	Providing data analysis
Description	This task includes data scouting evaluating the available information and data (real time traffic data, air quality data, meteo data, etc.); A preliminary analysis of data integration into the model-chain will follow in order to evaluate the feasibility of the service. The outcome of this task provides results on NO2, ozone and PM10 via WCS interface.
Time	The analysis will last almost 1 man-month
Estimated effort	i) Data analysis: 1 data analyst ii) Modelling integration: 1 system analyst

Option 2 – Back-end System Development

Task	Back-end System Development
Description	Following the preliminary data analysis by checking the appropriateness of the information to be included into the model, data will be integrated into the back-end platform. The platform includes the database management system and the application layer. The application layer includes several modules for data import, data validation, processing and storing as well as data provision by standardised geospatial services. This task also requires periodical overall **maintenance** of the system. Maintenance is required for every IT system and ensures the long-term functionality as well as the stability and reliability of the system. During the software development process of obsAIRveYourBusiness, the system has to be expanded to include the chosen model as additional sources for **data import**. This service can be provided together with the Mobile App (front-end system) or with a simple web interface offered from the developers in order to manage, select and report the results of the model elaborations.
Time	The analysis will last almost 3-5 man-months
Estimated effort	i) Data analysis: 1 data analyst ii) Modelling integration: 2 system analysts

Option 3 – Front-end System Development

Task	Front-end System – Customized App Development
Description	The communication of air quality measurement is viewed through the mobile application system developed within the obsAIRveYourBusiness Project. Each participating city or region acquires the app that provides an individually tailored branding. This includes the logo of the city, the splash screen and the background images. The app also supports different languages and therefore is able to present the AQ information for each city in the respective language.
Time	The analysis will last almost 3 man-month
Estimated effort	i) Data analysis: 1 data analyst ii) Modelling integration: 2 system analysts

Option 4 – Maintenance of the service

Task	Maintenance of the backend service and mobile applications
Frequency	Maintenance is required continuously during the project, starting after service development phase for at least 3-5 years time.
Estimated effort	Our current experience with similar projects is ca. 20% / year of the overall budget and covers bug fixing and 2nd level support.

Option 5 – Know how modelling service

Task	Consultancy on the modelling implementation and adaptation
Description	Know-how and methodology to apply urban models (e.g. ADMS-URBAN) with high resolution in cities can be provided.

Option 6 – Integration of the obsAIRveYourBusiness into existing services

Task	Consultancy on the modelling implementation and adaptation
Description	obsAIRveYourBusiness service can be absorbed in similar facilities used in other applications. There are other services available that offer alerts or information to special groups.

The efforts and costs of support for a new platform, deployment in an additional application distribution platform or development of new functionalities can be estimated upon request on a case by case basis.

In addition to the previously mentioned tasks, some general tasks are required for developing and maintaining the service. These are applicable for the service backend as well as for the mobile apps.

Contacts

For any question or points of clarification please contact the ObsAIRveYourBusiness team

info@obsairveyourbusiness.eu