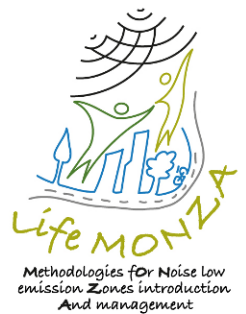




Proceedings of LIFE MONZA PROJECT FINAL EVENT

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App description and operation

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Abstract

In August 2019, the Municipality of Monza entrusted Wonderlab srl, an innovative startup in Salerno, with the realization of the Life Monza project app.

The software provides to acquire information on the activities of Life Monza, use the Pedibus service for children in the Libertà district, collect the Green Points that reward healthy behaviours and the use of good practices in relation to responsible and sustainable mobility.

The app, available both for Android and iOS, represents an important tool to stimulate the involvement of citizens (the so-called "bottom-up" measures) in the activities of their Municipality and in the acquisition of eco-friendly lifestyles.

1. Introduction

Life Monza is a European project, coordinated by ISPRA, aimed at introducing an easily replicable methodology for the identification and management of a Low Noise Emission Zone (Noise LEZ).

The city of Monza, in collaboration with the University of Florence and Vie en.ro.se Ingegneria srl, has identified a location in the municipal territory (the Libertà district) to be transformed into a LEZ area. A LEZ area is an urban area subject to traffic restrictions and low noise emissions, through specific measures concerning the road infrastructure (top-down actions) and the involvement of the population (bottom-up actions), encouraging the adoption of lifestyles linked to the improvement of health and air quality.

The bottom-up actions include the creation of an app, which is a collector of information and communications related to the project, as a support tool for project's initiatives and as a system of awareness-raising on sustainable mobilization and improvement of air quality.

The realization of the app of Life Monza was entrusted to Wonderlab srl, an innovative startup from Salerno, that won the Call for Proposals promoted by the Municipality of Monza in August 2019.

The company that will implement the app operates in all areas of technological innovation, with particular reference to the development of web and mobile software, video games and digital entertainment solutions, augmented reality and virtual reality systems, artificial intelligence projects and/or big data processing, multimedia content creation, social and web TV campaigns, cloud management and process dematerialization platforms.

2. The Life Monza project App

The realization of the Life Monza project App is based on the principles of software engineering, with the following main phases: requirements analysis, design, development and testing, release, testing and commissioning, go-live, maintenance, management and assistance.

All the activities are carried out in close cooperation with the Municipality of Monza in order to agree with choices and operational strategies and have been conducted in compliance with the directives and guidelines for the implementation of information systems for Public Administrations.

In particular, the design has been based on the arrangement of graphic prototypes (wireframe) that allowed to determine the graphic model of the software and define the functionalities and interaction systems of the users before proceeding with the actual development, optimizing the time and ensuring the achievement of expected objectives and quality standards.

Overall, the app can be represented as a set of four macro-areas of action:

- Information Section, which contains the documentation functionalities on the Life Monza project. It is possible to visualize data related to general information, objectives and results, the history of the acoustic monitoring of the Libertà district.
- Pedibus Section, which allows parents to book the stops for their children and check that the route to school has not presented any kind of problems.
- Green Points Section, where you can start collecting points that reward sustainable mobility choices within the pilot district

- User Section, which allows you to check/update your data and view the balance of collected green points

Since the services supported by the app include the participation of children (within the "**Pedibus**" project) and the monitoring of actions that, through geolocation lead to certain rewards ("**Green Points**"), particular attention has been paid to the respect of privacy and personal data protection. The aim of the project is to encourage healthy lifestyles, not to monitor people's behaviour and, therefore, it is important to specify that all information is managed exclusively for the specific purposes of the functionalities and no storage is made over time of data relating to the location of people or children's activities. This latter category is not expected to be among users of the app, as access to Pedibus services is allowed by adult parents. For the authentication to the app, it was decided to use the tax code in order to ensure the uniqueness of each profile as well as the immediate age control of the subject.

The system is provided with a web application that acts as a Control Panel for the City of Monza, through which you can check the proper functioning of the app, authorize users with relevant roles (e.g. Pedibus volunteers), view reports and statistics on the use of the software.

The app certainly represents a model that is strictly referred to the Libertà district of Monza and designed to operate within the reference perimeter. As envisaged by the project objectives, the software is designed with a view to great scalability, so it is sufficient to redefine the area of interest and the repository of access to monitoring data for expanding the area or applying the logic of the project in a different location.

The platform is also developed to be fully compatible with Android and iOS devices, ensuring maximum effectiveness with the latest versions of operating systems.



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