my SMART Life

An European urban transition project towards more sustainable cities through innovative solutions, in the fields of mobility, energy and digital.

Smart City

Global project

Coordination: Cartif
European grant: 18 M€
30 partners, 6 countries
Period: Dec.2016 - Nov.2021
Demonstrators: Nantes, Hamburg, Helsinki

@mysmartlife_EU
https://mysmartlife.eu/

Nantes demonstrator site

Coordination: Nantes Métropole
European grant: 4,5 M€
10 partners

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Energy

Action leader
Cerema

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Monitoring (data collection) for the evaluation of actions

The evaluation of the actions implemented within the framework of the project is an **important step**. It allows the European Commission and the actors involved in the project **to assess the impacts of the actions** they have contributed to co-financing.

To this end, **a monitoring & data collection system** was set up for each action. This monitoring system is coordinated at the consortium level by CARTIF. Its local application involves Cerema and Nantes Métropole, as well as the leaders of each action. The entire evaluation process is the subject of several reports (D2.1, D2.18, D.5.1, 5.2, 5.3, D5.4, D5.5). Written in English, they are available at https://mysmartlife.eu/publications-media/public-deliverables

► OBJECTIVES

› Collecting data to build evaluation indicators, to assess the impact of each action to enable its evaluation.

› Ensure reliable, durable and consistent data collection across the consortium.

› Supply Nantes Métropole's Urban Data Platform with monitoring data, where they are consolidated into a comprehensive evaluation dashboard.

► IMPLEMENTATION

CHALLENGE

As a demonstration project, the mySMARTLife project aims at experimenting in real conditions, urban innovations in the fields of mobility and energy by taking advantage of the opportunities offered by ICT and digital technology.

Before being generalized, these innovations have to be evaluated in order to verify that they deliver the expected results. It is also necessary to verify the conditions under which these actions can be replicated at a larger scale. This evaluation requires the collection of a large amount of data, which must be collected according to reliable protocols to be used properly. This is the purpose of the monitoring phase.

SOLUTIONS

Monitoring constitutes one of the steps in the evaluation process. This is the subject of a specific work package (WP5), which covers the evaluation of all the demonstration cities (Nantes, Hamburg, Helsinki).

Prior to the monitoring phase, i.e. the data collection phase itself, evaluation indicators (or KPIs for "Key Performance Indicators") were defined for each action (around ten or so). This made it possible to agree among consortium members on the calculation formulas, but also on the data to be collected through monitoring.

The data collected are of various kinds, depending on the objectives and technical constraints specific to each action. They can be data on temperature, energy production or consumption, distance travelled, frequentation, etc. Their collection frequency is also very heterogeneous (from a 10-minute frequency to biannually depending on the case).

This data can come from sensors, meters, probes... Others come from surveys, questionnaires and even, in some cases, readings (invoices for example).
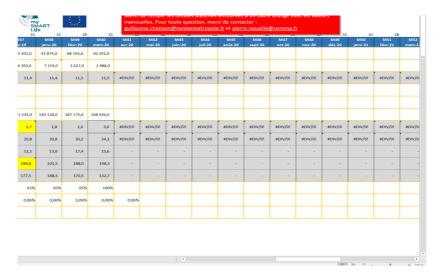
The collection of this data is the responsibility of each leader of action. These data flow into monitoring tables developed for each action, from which the evaluation indicators (KPIs) are automatically calculated. In accordance with European Union requirements, data collection must be spread over a period of at least two full years for each action.
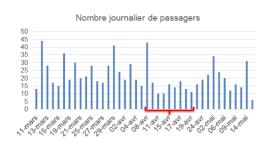
When it is possible, monitoring data is directly integrated into Nantes Métropole's Urban Data Platform through APIs. Otherwise, monitoring data and KPIs are stored in these shared tables, which then are automatically integrated into the Urban Data Platform.

In addition, an analysis of the data collected is launched every 6 months under the aegis of CARTIF to ensure its quality and completeness.
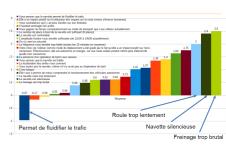
► BENEFITS

› A formalized data collection and processing method for a rigorous evaluation of the actions implemented within the framework of the mySMARTLife project.

› Data collection mechanisms adapted to each action and consistent across the consortium.

› The creation of a reliable corpus of data and measures, which is securely archived for each action.

› A means of providing the Urban Data Platform with urban data, and a potential opening towards open data for future complementary uses.

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