



PART 1 : BASIC DATA

Title of the experience: Águeda Sm@rt City Lab	
Name of the city/region: Municipality of Águeda	
Country: Portugal	
Institution presenting the candidacy: Municipality of Águeda	
Start date of the experience: April 2018	
End date of the experience: April 2021	
Type of candidacy	New experience
Type of experience	Workshop/meeting for diagnosis, monitoring, etc.
	Citizen initiative
Objective of the experience	Community empowerment
	To increase citizen's rights in terms of political participation
	To improve the effectiveness and efficiency of the mechanisms of participatory democracy
	To improve the quality of public decision-making through the mechanisms of participatory democracy
Territorial area	Neighbourhood
Thematic area	Governance
	Education
	Transport
	Urban management
	Environment and/or urban agriculture
	New social movements and associationism
	Housing
	Local development
	Training/learning
	Economy and/or finances

PART 2: DESCRIPTION OF THE EXPERIENCE

Objectives

Main objective of the innovative experience:

The Águeda Sm@rt City Lab aims to be the genesis of a less polluting, more innovative, sustainable, inclusive and resilient city / community, with a better quality of life for citizens. It is aligned with the UN Sustainable Development Goals. Transversal to all thematic areas (mobility, energy, buildings, circular economy and environment), a space for interpretation and dynamization of the Laboratory will be implemented, open to the community, in which citizens identify the problems/needs and will be able to know (and test) the technologies implemented in their territory as well as having information on the ways of participating in the activities carried out in this context.

How have you achieved this objective?

With the implementation of the measures mentioned in the various operations of the project. With feedback from companies, universities, institutions and citizens. With smart metering initiatives.

To what extent has this objective been achieved?

A Plan was developed for the dissemination and exploitation of the results of Águeda Sm@rt City Lab that includes a set of measures that will be taken during the project, so that the objectives defined within the scope of the Implementation Plan can be met and thus achieve the expected impact of the Laboratory.

The monitoring and evaluation mechanisms identify critical factors that conditioned or enhanced the implementation of the work plan and the respective results, with emphasis on detecting deviations in execution in relation to the expected objectives and impacts, difficulties and constraints associated with the same deviations to make adjustments to achieve the set objectives.

After implementing most of the measures, the objectives will be achieved. Due to the coronavirus pandemic,, some measures were suspended and are being rescheduled. Still, it is expected that the project directly or indirectly reaches commerce in the area, more than 20 suppliers, reach 352 buildings, 600 families, about 1950 people and 3,000 students.



ÁGUEDA SM@RT CITY LAB
Laboratório Vivo para a Descarbonização

Câmara Municipal de Águeda | Célia Laranjeira



Dimensions of the experience

Which is the most innovative aspect of the experience?

The implementation of the Águeda Sm@rt City Lab is based on the concept and model of open innovation, improvement in the efficiency of public services, co-creation and active participation of all citizens, companies and institutions, aiming at responding to urban challenges related to decarbonization, in thematic areas of mobility, energy, buildings, circular economy and environment.

The Municipality of Águeda has always been concerned with its citizens and the environment, but this is the first time a project aiming at the decarbonization of the city centre is implemented. The technologies, in association with the consequent changes in consumption habits and appropriation by the population and local communities, allow for very significant gains in energy and environmental efficiency in buildings, public spaces, urban services and transport. One of the main purposes of this project is that Águeda Sm@rt City Lab becomes an aggregating space for the various initiatives promoted by the municipality and partner entities in the field of decarbonisation and therefore creating a system for disseminating the results achieved, enhancing the progressive behavioral change of all community.

The city that creates the problems must also create the solutions. It is intended that the city of Águeda can be the stage of building local solutions to major global problems, in a logic of interaction between municipalities, universities, R&D centres, companies, entrepreneurs and citizens. The participants and the community can access [real-time information on the ongoing of the projects and results](#).

This project is an [innovative approach](#) to the achievement of the UN Sustainable development Goals 2030.

To what extent is the procedure transferable?

The project can be replicated and transferred with success during and after its implementation in any other city, neighborhood or street. Other institutions can access to the elements of the project on the Municipality of Águeda website, or visiting the Águeda Sm@rt City headquarters (located in historic city center) or by direct contact with the Municipality (Environment and Sustainability Division). The city was already invited to present the project and results achieved in different forums: e.g. by the Portuguese Fund for Environment, another by the organization of Smart City Tour exposition.

Why do you consider that the experience is feasible?

The Municipality of Águeda is a reference in the Portuguese Public Administration for sustainable development, innovative and competitive territory, socially cohesive and culturally active with a status of excellence with repercussions at national and international level, in line with a historic tradition as a municipality with a strong industrial and entrepreneurial inclination. It is considered a tourist, leisure destination and a place where it is good to live, work and learn.

The city also has an important background in political commitment and action towards a more sustainable development (Águeda was one of the first municipalities to subscribe the



Covenant of Mayors for climate and energy commitment), and also in community empowerment and participation. From the Local Agenda 21 to the participatory budgeting, Águeda’s community participation and actions are successes.

This project and experience is feasible because it combines all of the referred motivations and aspects: R&D, industrial innovative solutions, political commitment and citizen participation and involvement. It is possible to co-create more innovative, sustainable, inclusive and resilient cities, with a view to improve the quality of life of our citizens and communities, solving people’s daily problems and needs. These solutions foster the decarbonisation of the cities, through the implementation of technological solutions adapted to each need/case and increase efficiency while reducing energy consumption.

How has the experience been coordinated with other actors and processes?

The governance model and organizational structure of Águeda Sm@rt City Lab integrates three articulated levels with defined responsibilities: Coordinating Nucleus (Municipal Executive), Implementation Nucleus (participating entities) and Management Team.

The management team of the Águeda Sm@rt City is constituted by elements from the Environment and Sustainability Division (coordination - with technical skills in the thematic areas for decarbonisation), Division of Administrative Modernization, Quality, Audit, Funding and Partnerships, Division of Information Technology and Maintenance Division.

Several work sessions were held with companies and knowledge centres, as providers of technological solutions, services and relevant knowledge for the pursuit of the objectives defined for the LVpD (Laboratório Vivo para a Descarbonização) and operationalization of the proposed measures.

Several work sessions were held with companies and knowledge centres; awareness-raising actions have already been carried out in schools and planned social gatherings; public participation meetings open to all citizens, publications, thematic debates, several studies and environmental and social intervention actions.

What has been the level of co-responsibility?

In terms of involvement, co-creation and appropriation of new technologies implemented in the scope of the Laboratory by the population, it is worth highlighting the holding of clarification and brainstorming sessions on each technological proposal / solution, its operation and impact. In this way, citizens can play the role of co-creators, making contributions according to the needs detected and their experience as users of the Laboratory, obtaining a degree of knowledge that will allow the appropriation of new technologies during and after the implementation period.

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Which evaluation and accountability mechanisms were used?

The monitoring plan of Águeda Sm@rt City Lab aims, through the management team, at ensuring the efficient implementation of activities / operations as well as following and monitoring its implementation progress. In this context, in order to detect critical points in the implementation of the Águeda Sm@rt City Lab and introduce the necessary corrective measures, the following mechanisms for monitoring and assessing the responsibility of the management team were defined (technical follow-up and monitoring meetings, coordination meetings and results presentation).

Continuous monitoring of the indicators established to assess the impact of the Laboratory after the implementation period (second half of 2020).

Dissemination of information about the laboratory through social networks, [website](#) and LVpD newsletter, sustainability tips in local newspapers, sustainability manual during the coronavirus pandemic and sessions with the community, among others. Development of a single data aggregation and management platform with a view to a transversal and centralized management of information from the various [intelligent systems](#) installed in the Laboratory area, as well as other data related to the behavioral change of the population. The platform informs and supports the decision since the crossing of the different data will allow the Municipality of Águeda to implement measures and concerted actions with the current situation of this area of the city. This platform should centralise the monitoring system for the implementation of Águeda Sm@rt City Lab, namely the data of entry, processing and dissemination of the expected results.



Other results achieved are already at the service of the community: new electric vehicle charging stations installed (two), volumetric level sensors are being tested in ecopoints, a waste compactor implemented in the municipal market for paper / cardboard. Also an intelligent irrigation management system installed in the historical municipal gardens. Greenhouse gas emission reducers were installed in 21 vehicles of the municipal fleet (which allow a reduction of emissions by up to 80% and consumption by up to 30%). The public lighting of 3 streets and a square has been changed to 59 LED lighting with smart regulation system, installation of the solar photovoltaic self-consumption system in the parking lot next to the Águeda Volunteer Firefighters building, with the energy being used by the electric vehicle charging station and the surplus to be used by the Firefighters. Acquisition and installation of one bank with solar panels and USB ports for charging mobile devices. Two interactive multimedia panels were installed, accessible to everyone regardless of their physical or cognitive





limitations (Tomi for all), that promote the project initiatives as well as other relevant information to the citizens. An "EcoEvent initiative" was implemented, complying with certain environmental sustainability requirements and, within the scope of mobility, a train made a circuit around the city, allowing visitors and tourists to use this means of transport to get to know the city at the expense of individual transport. Installation of GEM (Global Energy Meter) in commercial establishments and housing.

Development of an app to register behaviors / challenges to the community - interconnected with the installation of GEM in commercial establishments and housing (under development). Acquisition of an electric van to implement an electric shuttle in the city of Águeda. Elaboration of a savings manual for citizens. In schools the action "more sustainably, less carbon", promoted the active participation of 250 young people, with the identification of new ideas to implement and reduce carbon emissions.

Annexes:

[Águeda Sm@rt City Lab](#)

[Manual de poupança](#)

[Video](#)