

3.3 beÁgueda Bikesharing (PT)

beÁgueda is an **electric bikesharing system** implemented in Águeda, a small municipality in Central Portugal. The system is composed by 16 bike-sharing stations and 45 bicycles situated in the city of Águeda and in 9 other villages along the Vouga river.

Good territorial coverage 	Sustained ridership growth 	Long-term durability
--------------------------------------	---------------------------------------	---------------------------------

3.3.1 About Águeda, Portugal

Country	Region	Target Area	Population	Population density	Visitors/year
Portugal	Aveiro	335,27 km ²	46.131	138 inh./km ²	63.690 Overnight stays - 2022

Águeda is a municipality integrated in the Aveiro Region, situated in Central Portugal. After a long period of resident population growth, since the census of population 2001 the population has been declining, especially in the rural areas. According to the last Census 2021, the population of the municipality was around 46.000 inhabitants, 70% of them living in suburban or rural parishes and 30% in the city. Águeda’s economy is dominated by the manufacturing sector, which represents more than 50% of the available jobs in the municipality. In particular, Águeda is traditionally famous for its lighting, metallurgy, and two-wheel industry. In 2001, 37% of Portugal’s motorcycle and bicycle manufacturers were based in the municipality while the main bicycle manufacturer in Águeda was a supplier of Paris’s Velib scheme, a large-scale public bicycle sharing system in Paris. The tourist sector is also an important contributor for the local economy. Águeda has several museums, cultural, natural, and gastronomic heritage which attract many visitors throughout the year. Each year in July, Águeda projects itself to the world through the AgitÁgueda – Art festival. The event attracts an average of 10.000 people daily, reaching around 240.000 people in total.

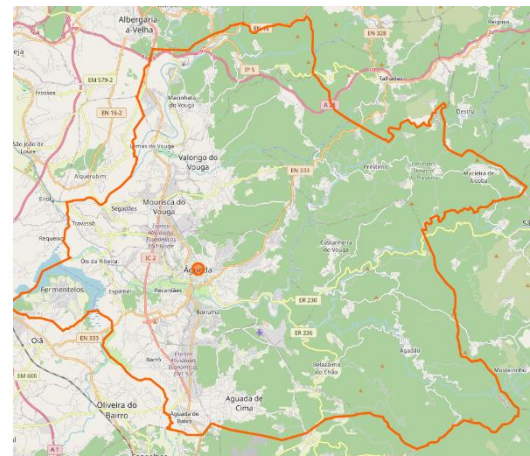


Figure 54 – Águeda position in the Aveiro Region context

3.3.2 Description of the Mobility Solution

The electric bikesharing system “beÁgueda” is implemented in Águeda, a small town with around 13.000 people living in the urban area and the rest living in suburban and rural parishes. The public transport routes have a low frequency, mainly from the surrounding rural areas to the city, causing mobility constraints, which reflects in the excessive car dependency. The destinations of the trips are mostly to the workplace or school, with the car being used by 81% and the bicycle only by 2%.

Coordinated by:

In cooperation with:

Supported by the:



European Commission



This mobility solution benefited the rural areas where the bike-sharing system was implemented, being an innovation in terms of area coverage.

The aim of this demonstrator is to promote the use of sustainable shared mobility solutions i.e. e-bike to the rural areas around the city of Águeda complementing the existing train routes, especially for young people/students who need to reach school on a daily basis. In a nutshell, Águeda's demonstrator overarching objective is to leverage the existent electric bike sharing system "beÁgueda" to extend it to the rural areas and use it to complement the existing train routes, especially for young people/students who need to reach school daily.

Target user groups and needs

Students are the main target group for this demonstrator, being the most receptive population to new experiences and behaviours - especially the student population that lives in the surrounding area and commutes to the city of Águeda to attend the high school or the university.

Involved Bodies

Be Águeda started operating in the city of Águeda in 2011, with one parking location and 10 electric bicycles supervised by a monitoring and management system. The service implementation was promoted by the municipality and financed by Mais Centro (National Strategic Reference Framework -QREN - 2007/2013, European Union).

More recently, in 2020 / 2021, the beÁgueda project entered its 3rd phase through the implementation of the European project SMARTA 2. In this phase, the project was joined by the Parishes of Travassô and Óis da Ribeira; Union of the Parishes of Recardães and Espinhel; Union of the parishes of Trofa, Segadães and Lamas do Vouga; and Parish of Valongo do Vouga and Parish of Macinhata do Vouga.

The other relevant stakeholders participating in the awareness sessions and in the promotion of mobility activities were two high schools situated in Águeda, as well as the Aveiro University, the Portuguese Institute of Employment and Training, and Ciclaveiro, an association that promotes cycling as a means of transport. ABIMOTA, National Association of Two-Wheeled, Hardware, Furniture and Related Industries, has professional qualification for technical support and testing of new solutions.

Mobility services provided/addressed

The BeAgueda project was first implemented in 2011 and has been expanded since then. Currently, the bike-sharing scheme has 16 bike-sharing stations and 45 bicycles situated in the city of Agueda and 9 other villages along the Vouga river. The stations are situated in central places within the city of Agueda and in the rural parishes (tourist office, parish and municipal council, among others).

Águeda aims to improve the connectivity of the rural parishes with the city centre, and especially with schools, thus enabling students who live in rural areas to easily reach the railway service, which will further connect them to their schools. During the first phase of the beÁgueda implementation (2011 – 2017), 6000 trips were made with shared. Since 2017, beÁgueda service is also available through an App that can be downloaded from the Google Play Store.

Ridership and other key metrics/results

The demand has been rising over the years. As a result of the intention of SMARTA 2 demonstrator on promoting multimodality with the Vouga Railway line, the main origins and destinations are the train stations

Coordinated by:



In cooperation with:



Supported by the:





and the schools. There is also an increasing demand from workers of the industrial parks around the Agueda city centre, which are still not served by beÁgueda.

A registration is required before using the service. Online registration is a possibility, but it may be necessary to travel to the competent services of Águeda Municipality to validate the user data and to make the payment. Once registered, the beÁgueda APP allow the users to manage the account and use the system by their own.

Supporting technologies

The beÁgueda service is available through an App that can be downloaded from the Google Play Store and bicycles are equipped with built-in GPS. Furthermore, the bikesharing has a monitoring and management system.

Engagement aspects

The stakeholder's engagement aimed to be ensured through interviews, conferences, workshops, and the service website. The communication and citizen participation plans were designed to engage the target groups (students, parents, and local communities as a whole) through the spreading of leaflets, TV channel interviews, video reports and open forums for citizen participation.

Although there is a general perception that beÁgueda has been a successful service, no customer satisfaction surveys or focus groups with users' categories and associations have been conducted by the municipality.

In the beginning, the parish councils created obstacles to the implementation of the project, but today they are requiring more bicycles and stations to be deployed in their territories. Other rural parishes are also requesting the service to be implemented in their territory.

Coordinated by:



In cooperation with:

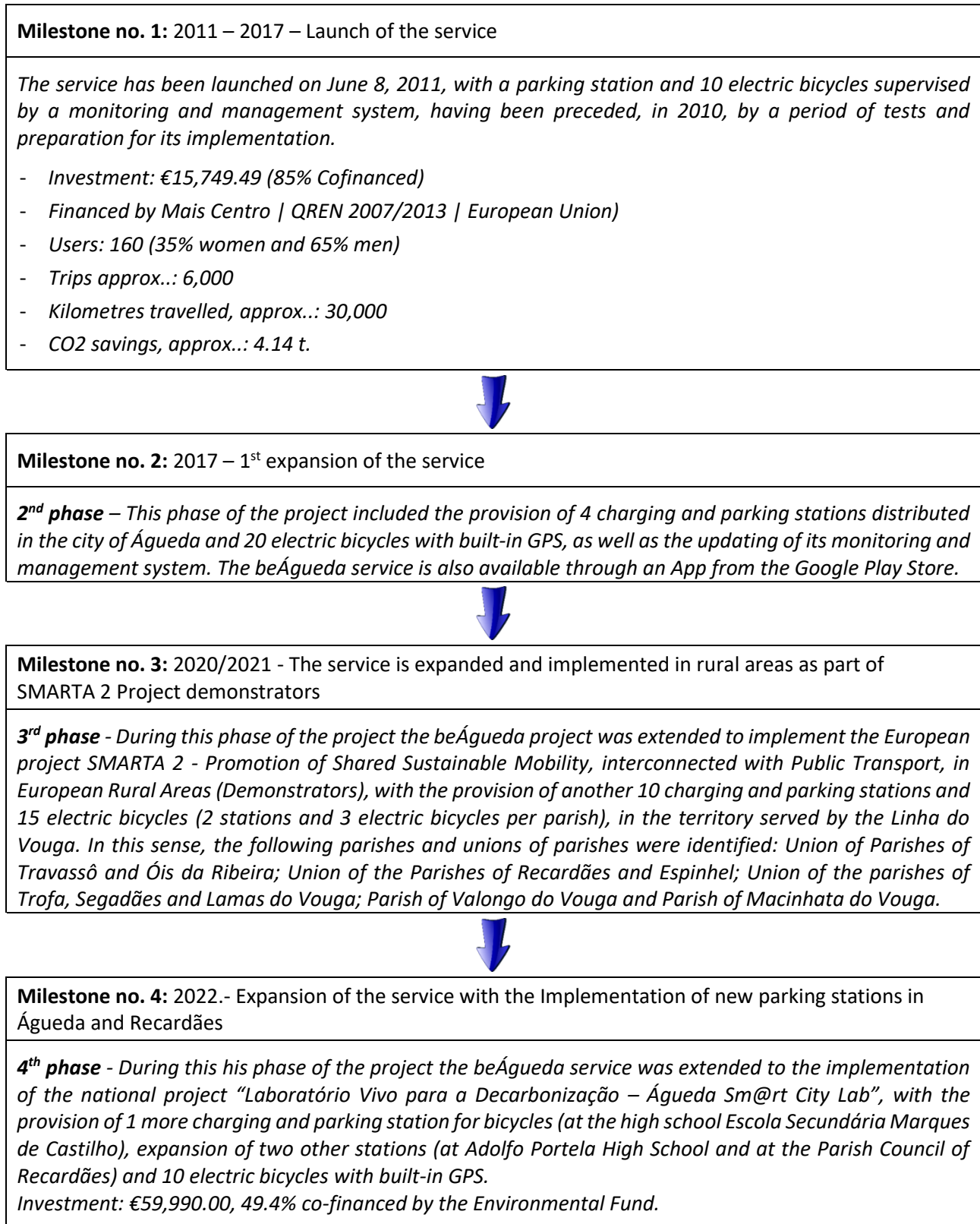


Supported by the:





3.3.3 Timelines and Milestones



Coordinated by:

In cooperation with:

Supported by the:



3.3.4 Long-term assessment

Success, Durability and Expansion

The service is still ongoing and has been constantly expanded since its creation in 2011.

At first, the system was implemented only in city of Águeda, but it has been continuously upgraded over time. In 2020/2021, as part of the SMARTA2 demonstrator, the system was implemented in several rural parishes which was a significant upgrade of the bike-sharing system. The service has served as inspiration to other municipalities especially in Portugal, but also in Galicia (Spain).

Águeda has been contacted by these municipalities to provide their expertise on the bike-sharing system, and know-how on specific issues. Further expansions to other areas require a higher level of organization, which will increase operating and maintenance costs, that are all covered by the municipality. The service is highly dependent on external funds to further expand.

Funding and financing

Costs of the service and Business Model: the latest expansion of the service in 2022 cost a total of €59,990.00, of which 49.4% was co-financed by the Environmental Fund.

Operating and maintenance costs: there is a person full-time allocated to maintenance and operational activities, which represents around 30.000€ of annual budget covered by. The IT services are outsourced to a private company. Until now, all beÁgueda implementations have been funded by European or National funds. Maintenance and operating costs are covered by the municipality. Águeda is looking for a public /private partnership for the next upgrade of the bike-sharing system. The service will be free of charge until 31st December 2023. At this moment, there are no revenues.

Why is it considered a good practice?

The service is still ongoing and has been constantly expanded and upgraded since its creation in 2011. It connects the rural parishes/area with the city centre of Águeda, allowing the integration with the railway service. It provides a suitable transport mode to students living in rural areas to easily reach schools in Águeda, encouraging the practice of healthier and more environmentally sustainable behaviors, reducing CO₂ emissions (≈138 g/km), contributing to a city that is more friendly to the citizen and the environment. Furthermore, the strategic locations of the bicycle-sharing stations situated in central places within the city of Águeda and in the rural parishes is an added value.

Coordinated by:



In cooperation with:



Supported by the:



3.3.5 Transferability considerations

CONTEXT PECULIARITIES	TRANSFERABILITY CONDITIONS
<p>The existence of cycling infrastructure and safety perceptiveness (especially to the youngest).</p>	<p>The implemented mobility solution can be transferred and easily adapted to different areas considering the following:</p> <ul style="list-style-type: none"> - Bike sharing solutions should be considered as a key element of the overall mobility in a city by relevant authorities, in order to be prioritised and integrated – thus, not in competition – with other PT services. - Detailed definition of the support conditions and organisation aspects (PPP collaboration, competition or collaboration with PT services and PT operators) - Need to have a detailed feasibility study defining the business model in terms of “real” cost for the authority for the implementation of the bike sharing service(s)/scheme(s)
DIFFICULTIES ENCOUNTERED/WEAKNESS	LESSONS LEARNT
<p>Conditionality/dependency on some other activity, project, event, etc. Financial difficulties encountered in maintaining active the service. All operating and maintenance costs are in fact sustained by the Municipality High dependence on external funds for further expansions Possible difficulties about the user’s registration.</p>	<ul style="list-style-type: none"> - The support of private sponsors could guarantee the upkeep of the service and become a new funding model. - large-scale information and awareness campaign are necessary to promote the uptake of sharing mobility modes

References for further details

beÁgueda Website: <https://www.cm-agueda.pt/viver/ambiente-e-sustentabilidade/sustentabilidade/mobilidade-suave/beagueda>

Main data sources

SMARTA 2 documentation Good practices catalogue : <https://ruralsharedmobility.eu/good-practices/>

Coordinated by:

In cooperation with:

Supported by the:

