

## 3.2 BARshare car sharing (DE)

BARshare is a corporate e-car and e-bike sharing service with a vehicle fleet of 43 e-cars and six e-bikes available to Barnim administrations, companies and institutions, but also to citizens outside office hours



### 3.2.1 About Barnim, Germany

Country	Region	Target Area	Population	Population density	Visitors/year
Germany	Barnim	1.494 km <sup>2</sup>	182.760	122 inh./km <sup>2</sup>	1.6 million overnight stays

Barnim is a rural area in Brandenburg (Germany) stretching from the Oder River (eastern border) to the outskirts of Berlin. Barnim region is characterised by the presence of numerous forests and large lakes, hosting several rare wild animals.

The neighbouring city of Berlin has a diverse and increasingly better infrastructure with public transport services, e-scooter, bike and car sharing, as well as a growing network of bike paths. However, the rural area of the Barnim district faces inherent infrastructural challenges: great distances, few public transport services due to the sparse population, and a significant number of private cars – all making the development of sustainable, future-oriented mobility options more difficult.

### 3.2.2 Description of the Mobility Solution

BARshare is a station-based e-car sharing service for business and private use available in the Barnim district. The station locations are in Ahrensfelde, Bernau, Biesenthal, Blumberg, Britz, Eberswalde, Melchow, Oderberg, Panketal, Wandlitz and Werneuchen. BARshare was introduced in June 2019 by Barnimer company (transport operator) with the goal of the Barnim district to replace their fleets with a climate-friendly sharing fleet. This goal was based on a political decision of the district council in 2015, referred to the zero-emission strategy of Barnim from 2008 indicating that 100% electric mobility should rely on renewable energies that could be generated at regional level and used for the operation of the fleet.



Figure 53 – BARshare e-cars fleet

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### Target user groups and needs

The vehicles procured for this purpose in 2019 are available not only to Barnim administrations, companies and institutions, but also to citizens outside office hours. Thus, tourists and guests can also access the BARshare fleet after a one-time simple registration and book them for trips. Through this shared use approach, called the "main user co-user principle" by the BARshare service, many people in Barnim can simultaneously access a common e-fleet and thus jointly contribute to saving CO<sub>2</sub>, reducing parking space, using existing vehicles efficiently and testing e-mobility as a partial step of the transport turnaround in the Barnim. Co-users are locals or tourists.

### Involved Bodies

Barnimer Energiebeteiligungsgesellschaft GmbH as a subsidiary of Kreiswerke Barnim GmbH is the operator and responsible for the implementation of the BARshare service. Services provided internally are planning, procurement, marketing, customer service and accounting. Services contracted externally are cleaning and maintenance, as well as the app and carsharing hardware. In fact, besides Kreiswerke Barnim GmbH and Barnimer Energiebeteiligungsgesellschaft GmbH, the Eberswalde-based company Autodienst Marx is responsible for the maintenance of the e-fleet, regular cleaning of the vehicles (about every two weeks) as well as for vehicles repairs. It is constantly on duty with an employee specifically responsible for BARshare. A regionally based electric company has already been able to install many charging stations for the electric vehicles of the station-based e-car sharing.

All BARshare vehicles are powered 100% with green electricity from the Barnimer energy supplier Stadtwerke Bernau. The partnership between Stadtwerke Bernau and Kreiswerke Barnim, which also cooperates with the regional brand Barnim Energie and the public e-mobility charging network Barnim with two other regional offers in the field of energy supply, offers the possibility to let regionally generated electricity flow into the operation of the charging infrastructure necessary for BARshare and thus also to pay attention to regional cycles in the drive technology. Kreiswerke Barnim cooperates with the local tourism information to validate driver licenses.

### Mobility services provided/addressed

The vehicle fleet consists of 43 e-cars and six e-bikes. After one-time registration at [www.barshare.de](http://www.barshare.de) or via the free BARshare app, interested private individuals in possession of a valid driver's license can also book BARshare for rides and trips at all BARshare locations. Free interim charging of BARshare vehicles is possible at the charging stations of the e-mobility charging network Barnim ([www.ladenetz-barnim.de](http://www.ladenetz-barnim.de)) in addition to the home stations.

The use of BARshare is also possible outside the Barnim, but requires the self-organization of the users, who must inquire in advance about charging options of external providers and the associated payment modalities. Thanks to the charging cooperation between Kreiswerke Barnim and Bürger Energiegenossenschaft Inselwerke eG, BARshare users can recharge their batteries free of charge at the public charging stations of Inselwerke on the Baltic Sea Island of Usedom.

The trips are very different: the main users mostly travel from their company to the region, while among the co-users there are various travel occasions such as leisure trips or relocations. In part, the offer can convince locals to get rid of their own car.

The price and tariff model for BARshare users consists of an hourly rate and a flat rate per kilometre, depending on the vehicle model. In addition, a daily rate is offered. BARshare main users pay a fixed monthly

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amount depending on the user hours per week. The contracted main user has an all-inclusive package that includes cleaning, maintenance and servicing of the vehicles, insurance (partial and comprehensive), a digital logbook and the fleet booking system. Beyond the main and shared use, there is the possibility to share BARshare vehicles as a company or commercial institution.

Ridership and other key metrics/results

BARshare represents an offer for everyone who is over 18 years old and has a driver's license. There are a total of 800 corporate users and 2.300 private users. 400 are active users, meaning they have already taken at least one ride this year.

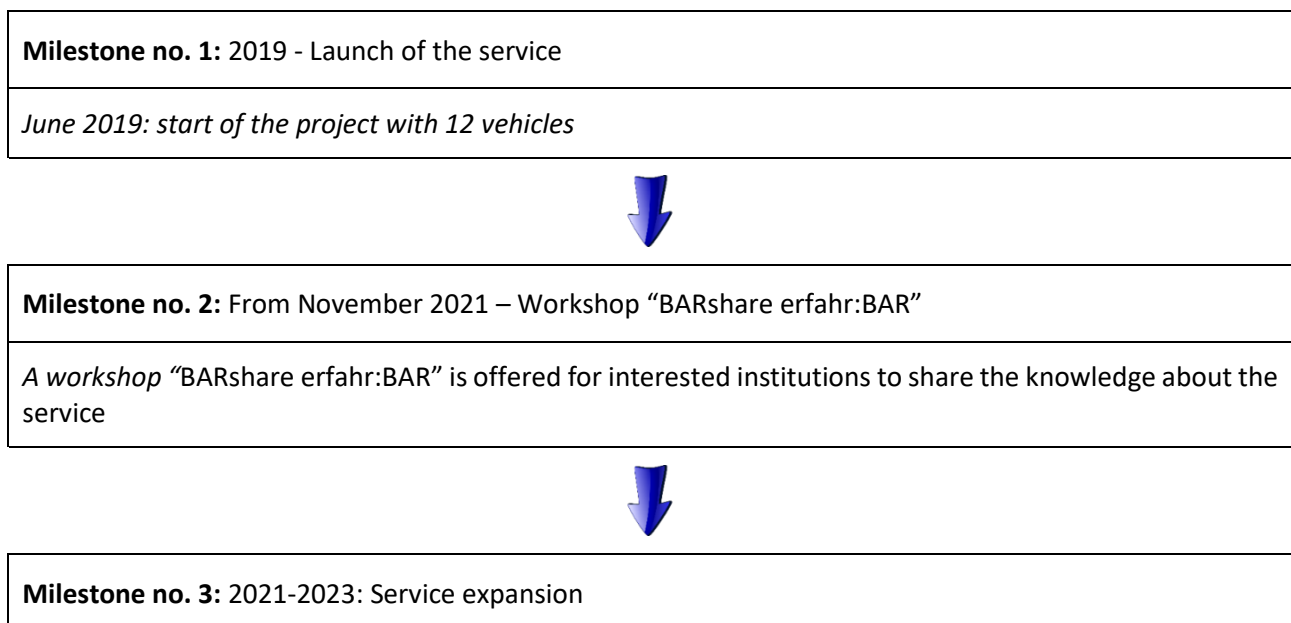
There was no drop or decline during the COVID-19 pandemic, as private users relied more on personal transportation anyway. There were fewer service trips per se, however, partners were still required by the contracts to pay their monthly fare. One change that affected all users was compliance with specified hygiene measures.

Supporting technologies

To use the offer, users must register once in the app and can then book a vehicle, which has to be returned to the first location. Payment also works via the app. It also contains an overview of charging stations in the region. Quality features of the offer are the digital aspect, the availability of different vehicle models, as well as customer service and ease of use. The app allows users to provide feedback after making a booking.

The technical provision of the web-based booking platform and the BARshare app is carried out by the partner Digital Mobility Solutions GmbH (MOQO) based in Aachen. MOQO also ensures accessibility for emergencies (e.g. vehicle cannot be opened, delayed return) via a 24/7 service hotline. In addition to the district, the establishment and operation of the BARshare mobility station Werneuchen was also supported by the bike sharing service provider velocity mobility as well as the cargo bike provider "Business auf Rädern" to optimally bundle existing competencies in the field of micro mobility/sharing/electric bike sharing.

### 3.2.3 Timelines and Milestones



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*In this period, there was a significant development of the service's capabilities. In particular, in 2023 the electric fleet in sharing amounts to 43 e-cars and 6 e-bikes.*

### 3.2.4 Long-term assessment

#### Success, Durability and Expansion

The offer continues to run and is regularly expanded. For the commissioning of new BARshare and BARshare BIKE locations in Barnim, it is always necessary to check the possible utilization and financial viability of the individual locations to set up the mobility offer efficiently and sustainably not only from an economic, but also from an ecological and social point of view. The offer is attracting interest from other companies. Therefore, a workshop format for interested institutions, "BARshare erfahr: BAR", has also been offered since November 2021.

This format was developed in 2021 in response to high demand from other municipalities, municipal utilities, carriers and institutions outside the Barnim district and aims to provide practical knowledge in a 2.5-day event, from conceptualization, costing, vehicle procurement, the necessary technical infrastructure to operation, customer service and marketing and public relations. The knowledge input and exchange provided here is intended to facilitate the step for other institutions to develop and introduce comparable or similar mobility offerings based on e-mobility and/or sharing themselves.

Challenges during the establishment were on the one hand that at the time of the introduction there was no comparable example of e-car sharing in rural areas in Brandenburg or the new federal states of Germany, on the other hand there were prejudices of the citizens towards e-mobility and sharing concepts. The personnel and financial costs should also not be underestimated, as many resources had to be made available for ongoing operations. In addition, due to the new offer, long-term and persistent measures are necessary to reach people sustainably.

#### Funding and financing

**Capital costs:** The launch of BARshare and the creation of the necessary infrastructure in 2019 is thanks to extensive funding, without which the project could not have been initiated and established in its size. The European Union provided €23.750 in funding for the concept of implementing climate-friendly e-carsharing as a service in the Barnim district to reduce CO<sub>2</sub> emissions, as well as € 98.400 for 22 electric vehicles with associated charging infrastructure. The overall share of funding was around 40%.

**Operating costs:** Include costs for personnel, maintenance, cleaning, etc. Monthly costs of €600 to €700 per vehicle can be expected. Services provided internally are planning, procurement, marketing, customer service and accounting. Services contracted externally are cleaning and maintenance, as well as the app and carsharing hardware.

Profit is not the focus, because the offer should exist in the long term to represent a safe offer for the users. Revenue is drawn firstly from the main users, who pay a monthly amount. The majority of BARshare locations are in the immediate vicinity of an institution that uses the vehicles located on site as part of a main user group, thus ensuring the basic utilization of these and covering a share of the operating costs for the respective location. The additional revenue generated by private users even makes some sites economically viable at present.

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For the future, it is planned to not expand further on a large scale, but only when requests come in, to maintain and optimize the quality of the offer. Customer satisfaction is seen as an important goal.

Why is it considered a good practice?

BARshare was introduced with the goal of the Barnim district to replace Barnimer company fleets with a climate-friendly sharing fleet. The co-user approach and related additional revenue generated by private users makes some sites economically viable at present. The sharing of the experience and knowledge about the service through specific workshops (one per year) “BARshare erfahr:BAR” facilitates the implementation of a similar solution from other institutions.

### 3.2.5 Transferability considerations

<b>CONTEXT PECULIARITIES</b>	<b>TRANSFERABILITY CONDITIONS</b>
<p>The rural area of the Barnim district faces its own infrastructural challenges: great distances, few public transport services due to the sparse population, as well as high levels of use of private cars that make the development of sustainable, future-oriented mobility options very challenging.</p>	<p>The sharing electric vehicle system can be transferable to areas where the regional administration and the inhabitants are committed to achieving environmental improvement by acting in a vast area such as daily mobility. To implement this mobility solution it is necessary to:</p> <ul style="list-style-type: none"> <li>- check the possible utilization and financial viability of the individual location to set up the mobility offer efficiently and sustainably not only from an economic, but also from an ecological and social point of view</li> <li>- assess the public and private companies which are co-located and related potential users for the service</li> <li>- identify a company who can take the leadership of the service, (e.g., a company already present in the area working on the energy sectors</li> <li>- design and develop a web and app platform to book the service and secure funding for its implementation</li> </ul>
<b>DIFFICULTIES ENCOUNTERED/WEAKNESS</b>	<b>LESSONS LEARNT</b>
<p>Challenges during the establishment of the service were:</p> <ul style="list-style-type: none"> <li>- at the time of the introduction there was no comparable example of e-car sharing in rural areas in Brandenburg or the new federal states of Germany;</li> <li>- presence of prejudices of the citizens towards e-mobility and sharing concepts;</li> </ul>	<p>All BARshare vehicles are powered 100% electrically with green electricity from the Barnimer energy supplier Stadtwerke Bernau. The partnership between Stadtwerke Bernau and Kreiswerke Barnim, which also cooperate with the regional brand BARNIM ENERGIE and the public e-mobility charging network Barnim with two other regional offers in the field of energy supply, offers the possibility to let regionally generated electricity flow into the operation of the charging infrastructure necessary for BARshare and thus</p>

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<p>- the personnel and financial costs should also not be underestimated, as many resources had to be made available for ongoing operations.</p>	<p>also to pay attention to regional cycles in the drive technology.</p>
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**Main data sources**

- Kreiswerke Barnim GmbH, 2022. Available at: <https://www.kreiswerke-barnim.de/mediathek/presseinformationen>
- Online-Interview with Saskia Schartow, BARshare project management, June 2023.
- Photo: Bundesinstitut für Bau-, Stadt- und Raumforschung, n.d. Available at: <https://www.mobilikon.de/praxisbeispiel/barshare-kommunales-e-carsharing-angebot-im-landkreis-barnim>

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