

2.2 Nabogo carpooling (DK)

Nabogo is an **app-based carpooling service** implemented in 30 Danish municipalities as well as in regions in the Netherlands, Sweden and Norway and aiming to encourage people to share car trips when travelling from rural areas to nearby cities



2.2.1 About Vejle, Denmark

<u>Country</u>	<u>Region</u>	<u>Target Area</u>	<u>Population</u>	<u>Population density</u>	<u>Visitors/year</u>
Denmark	Southern Denmark	144 Km ²	113.720 inh (2017).	418 inh./Km ²	762.000 (2019)

The city of Vejle is located in southern Denmark, specifically in the southeast of this region. The city, surrounded by green hills and woods, is located at the end of the fjord of the same name and its name derives from the ancient Danish, in which it meant "ford", precisely because it was built on a crossing of the Vejle river.

As in many other sparsely populated areas in Scandinavia, public transport in the rural parts of Vejle municipality is limited and difficult to maintain.

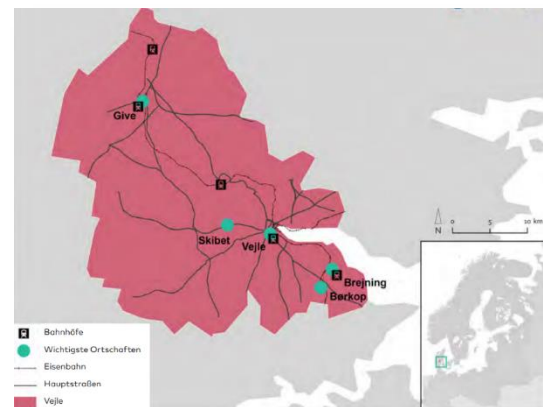


Figure 40 – Vejle mobility network

2.2.2 Description of the Mobility Solution

The mobility solution is a carpool app that was first introduced for the village of Smidstrup-Skærup, which is part of the municipality of Vejle in South Jutland, Denmark.

The long-term goal of Nabogo is to create better mobility options in rural areas, make living there more attractive and reduce the carbon footprint of car use. Nabogo also aims to reduce traffic jams in urban areas and to complement public transport. The app allows people to offer a ride or search for a ride to a specific destination. The mobility solution therefore contributes to offering better mobility options in rural areas. This makes residents more mobile. Additionally, carpooling saves CO₂ and can reduce traffic jams.

Today, Nabogo is implemented in 30 Danish municipalities (out of 98 in total) as well as in regions in the Netherlands, Sweden and Norway. In terms of future developments, Nabogo is undertaking the integration of the ridesharing function with information about public transport services, so that information on a greater number of transport options is available through one app.

Nabogo has three offices in Denmark, one in the Netherlands – and 8 employees plus 7 student assistants.

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Target user groups and needs

The offer is aimed at anyone who wants to travel from Smidstrup-Skærup to e.g. the regional centre of Vejle, 13 km away. Anyone can register in the app and can either offer to share their car or look for a ride. Passengers must be 16 years of age, and drivers must be 18 years of age and have a valid driver’s license.

The main target group are young people without a driving licence who have not had the opportunity to get home from evening activities due to the existing bus service. The offer should also enable young people to do an apprenticeship in their home region or to study there, so that they may even stay there in the long term.

Involved Bodies

The service was led by the Municipality of Vejle, in cooperation with the app developer Nabogo, which owns the intellectual property rights to the solution. The Public Transport Company of Southern Denmark is an associated partner. Smidstrup-Skærup Municipal Council also played a major role in implementing and promoting the app in the region. Various local businesses were contacted and asked to spread information about the service. The local news channel TV Syd also helped spread the word about the solution, both with a special feature and an interview with a local politician.

Mobility services provided/addressed

About 500 people live in the village of Smidstrup-Skærup. The app enables them to organise trips between the village and the surrounding area, including the cities of Vejle, Kolding, Odense and Fredericia. Car owners can register on the app if they are planning trips or regular journeys to nearby urban areas such as Kolding or Odense and are willing to offer a ride to other people in their community. Those who do not own a car can use the app to search for rides to their desired destination. Drivers can pick up passengers at pick-up points located around the Smidstrup-Skærup village area and in nearby towns.

The Nabogo app not only connects drivers and potential passengers, it also allows people to see how their shared car journey can be combined with other public transport such as bus or train journeys. In this way, people can plan their entire journey from home to their destination, combining different modes of transport. Today, drivers receive a small payment for sharing their car journey, based on a fixed rate (€ 0,10 Km), and payments are made through the app. Furthermore, both drivers and passengers get a subsidy from Nabogo for the first 10 km of each ride to make local trips more relevant/attractive.

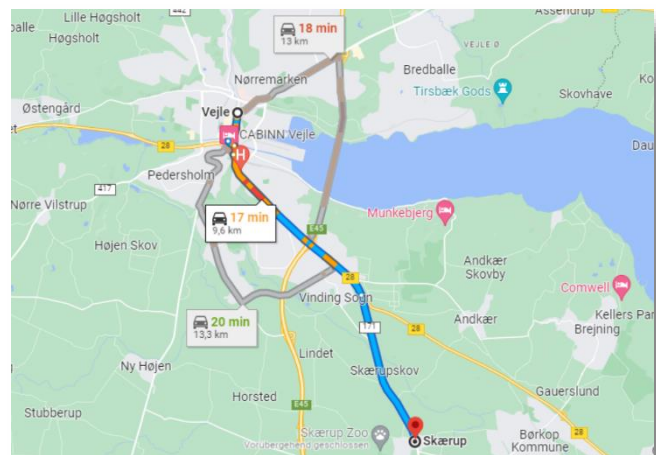


Figure 41 – Road network between Vejle and Smidstrup-Skærup village

At present, Nabogo is in operation in four different countries. According to the app, a total of 2,618,768 km was driven. An average journey takes 38.4 km.

Ridership and other key metrics/results

Nabogo is used by 15.000 users. 90% are Danish citizens. The main users are residents of the area. The biggest user group are young people going to high school (40%). Those are 16- or 17-year-olds without a driver

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license. For Nabogo this is a core group to engage to not buy their own car once they turn 18. Another user group are young professionals who are starting a career, changing jobs, have no kids yet, have low salaries and have lived in cities, therefore they have experience with carpooling, sustainability, navigation and being a passenger. The third user group are women between 40 and 60 who have no kids or kids of school age, have flexibility in their lives, are frustrated about fuel prices and are mostly the owner of the second car in households.

The service of Nabogo was affected by COVID-19 as it didn't have to stop completely, but stopped marketing and expenditure. They concentrated on communication, investment communication and attracting investment instead. The strategy was to be stronger after the pandemic and putting learnings into a new product.

In autumn 2021, Nabogo launched in Sweden and were able to launch at several educational institutions in Denmark, and the launch rate increased throughout 2022. In winter 2022, the service launched in the Netherlands. They started with the core group of young people after the pandemic because of less COVID-19 barriers. The service gives users more options to leave and come back to rural areas as well as a combination with public transport. The trip motivations are access to education, jobs and leisure trips, to get from one village to another, and culture and shopping to cities.

Evaluations in the form of online-questionnaires and interviews are part of the product development. Interviews with workers from LEGO pointed out that they use carpooling as well as their own car. Due to the carpooling offer between Vejle and Billund, the bus line had an increase of 8% in 2022 compared to 2019. This can be compared to the average for bus lines in Denmark which experienced a decrease of 15%.

Supporting technologies

Nabogo has been responsible for the development of the app, of defining the rideshare meeting points in Vejle area and the preparation of marketing material for promoting the solution in Vejle Municipality. Implementation of the ride-sharing pilot in the Vejle municipal area, within the framework of the MAMBA project, proceeded in the following steps:

1. Development of the app
2. Collaboration and consensus building for implementation including meetings with the local council
3. Finalisation of the app
4. Launch and promotion to encourage passengers to use the service
5. Replication in other municipalities

After a successful launch on 9 September 2019, Vejle municipality continued promoting their pilot in the Smidstrup-Skærup village area. Posters advertising the app had been placed in strategic spots around the area, in order to familiarise people with it and encourage them to use it. Furthermore, a clip showcasing the destinations available through the app had been produced and distributed. The timeframe from writing the specification through to the implementation of the service in the local area was around seven months.

The app "Nabogo" (nabo means neighbour in Danish) was launched in 2019 as part of a European project (MAMBA). The goal behind the app is to encourage people to share car trips when travelling from rural areas to nearby cities. Nabogo app is a highly innovative rural ridesharing system, combining the trip planner with the national public transport database. Merging information in one system, about available carpooling and traditional public transport solutions on the selected route, facilitates mobility planning for users and promotes multimodality in rural areas where travel options are scarce. The usability of the app was based on

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existing experience, in-depth discussions with local council members and a survey to understand the specific mobility needs of the local population in detail. The mobile data network in the area is very well developed, so the technical conditions for a digital solution are optimal.

Engagement aspects



Figure 42 – Nabogo advertising

Nabogo is operational in tourism areas, but not used by tourists yet. Users can book only one seat for themselves and not for other adults or children as this would give Nabogo new legal requirements. The requirement for using the service is for drivers to be over 18 years of age, own a valid license and a legal car. Nabogo might use tools to monitor drivers in Denmark soon. The requirements for passengers are to be older than 16, use the app and upload a photo and use the telephone verification.

When the idea of an innovative carpool solution came up, some residents expressed concerns that it would undermine the continuity of remaining bus services to and from the village. These comments were taken seriously - the combination of the carpool solution with the National Travel Planner ensured (and was perceived by local people to ensure) that existing bus services were not jeopardised. A key quality is not the comfort of the

vehicles as they consider a car as a seat in public transportation. Passengers usually travel short distances, so they accept to ride in every kind of car and brands do not matter. The speed of booking and payment is a key quality. In new areas, campaign vouchers of 10 or 20 euros are given to users for their account to try out carpooling, so payment is not a barrier for using the service. The result is that people use the app afterwards and upload many euros. A useful feature is that drivers receive their money in the app as well, people can be both a driver and a passenger. Users get paid out every month or at a time that they choose.

Experience is that sufficient time and energy should be invested in a comprehensive and detailed agreement with all third-party solution providers to avoid negotiations and changes during the project. Experience also shows that ideally there should be a person on the ground as an ambassador for the project to ensure that the solution remains central even after the project has ended. Nabogo is ambitious to be the number one preferred partner for carpooling with public transport in Denmark, Norway, Sweden and the Netherlands. They are looking at comparable countries within the EU and UK to enter the market.

2.2.3 Timelines and Milestones

<p>Milestone no. 1: September 2019: Launch of the offer</p>
<p><i>The lead time for the project was seven months. It included writing the specification, the development and finalisation of the app as well as the collaboration and consensus building for implementation. They launched the offer successfully on 9 September 2019 and started promoting the app in the region of Vejle.</i></p>



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**Milestone no. 2:** Summer 2021: App launch version 2.0

The national travel planner was integrated in the app – and the other way around. Also payment with public transportation was integrated

2.2.4 Long-term assessment

Success, Durability and Expansion

The people in the village of Smidstrup-Skærup form a close-knit community characterised by a strong sense of community. This is an important asset for a carpooling system, which inevitably depends on a high level of mutual trust. After the first successful pilot, the app is now available in 26 municipalities in Denmark, in Sweden, Norway, Belgium and the Netherlands, and there are plans to roll it out in other countries. Nabogo depends on people's willingness to sign up to the app and share their journeys. To anchor the app in local contexts and achieve widespread use, Nabogo always builds close partnerships with municipal and regional authorities, public transport providers, the education sector and village communities and businesses. These partners help to inform the population about the new possibility of commuting and travelling together. There are three carpooling apps in Denmark, but Nabogo is the biggest when it comes to usage (users and carpools).

Nabogo has so far managed to launch in five different countries. Its mission towards 2025 is to become firmly rooted in the European market by creating a fundamental change in everyday transport, especially in rural areas. Nabogo is paying back the investments already after two or three years.

Funding and Financing

The MAMBA pilot project co-financed the development of the Nabogo app, as Vejle received funding for the project. MAMBA contributed € 89.499 to the development cost of the digital platform and app. This figure equates to approximately one third of the development cost of the digital service, providing match-funding alongside Nabogo's own investment and support provided through national funding. A smaller budget of € 5.000 made available through MAMBA supported implementation and marketing of the service in the local area, such as the face-to-face promotion at the supermarket.

Capital costs result from finalising the app, analysing the local geography, putting in the digital meeting points and mobilising partners like schools and companies.

Operating costs are rather low. The drivers are paid out regularly. The ridesharing service has been based on a business model where the municipality supports the ongoing financial costs of operating the digital platform. This represents a good value approach to providing a mobility solution, as much of the investment was made during the development of the digital platform and operating costs are limited. In comparison to alternative approaches, such as a subscription fee or usage fee for drivers and/or passengers, this approach also has the benefit of not creating a cost disincentive/barrier to usage of the service.

Why is it considered a Good Practice?

The Vejle pilot demonstrates well how a ridesharing/carpooling platform can be put in place, in a very cost-effective way, in order to broaden the mobility options available to the residents of rural settlements. Proper integration with the public transport offer, in terms of presenting both ride-share and bus services in digital journey planners, is being put forward to give greater choice to service users.

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2.2.5 Transferability considerations

CONTEXT PECULIARITIES	TRANSFERABILITY CONDITIONS
<p>The mobility solution is very well transferable to other rural areas, as the availability of cars is usually very high there. Especially immobile groups can benefit from the offer. The fact that the project is easily transferable to other regions is confirmed by the fact that there are already several local agreements with regions and public transport agencies in different countries.</p>	<p>In the start-up phase, the development and completion of the app is relevant. In addition, the cooperation between the app developer and the municipality must work. During implementation, advertising is very relevant in order to make many people aware of the offer and encourage them to use it. A prerequisite is that the mobile data network in the area needs to be very well developed.</p>
DIFFICULTIES ENCOUNTERED/WEAKNESS	LESSONS LEARNT
<p>How successful the project is, depends on the cooperation of the stakeholders and the promotion. As the investment was made during the development of the digital platform and operating costs are limited, the offer is also easy to implement in new regions.</p>	<p>For the local initiators, the project is a success, because it has been very well received in Vejle and they have already expanded it to several regions. In general, it is important that Nabogo handles the operations from A-Z; app development, customer service, local partnerships, campaigns, evaluations and press.</p>

Main data sources

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