



Reconnecting rural areas
with **Demand-Responsive
Transport**

ABOUT

Since 2014, Padam Mobility has offered digital on-demand Public transport solutions (DRT and Paratransit) **to transform peri-urban and rural territories and bring communities closer together.**

To do this, the company offers a **software suite of smart and flexible solutions** that improve the **impact of mobility policies** in sparsely populated areas for all types of users. **To get users, operators and communities on the move.** This software suite is based on powerful algorithms and artificial intelligence. It includes :



A **Booking interfaces** (mobile app, website) for users and call centres.



A **navigation interface** (mobile app) for drivers.



A **management interface** for operators and Public Transport Authorities.



A **simulation tool** for designing and setting up mobility services.

Public Transport Authorities, operators and private companies trust us to help them **open up territories, optimise the mobility offer** and facilitate its operations, to **accompany them towards operational excellence**, and finally to act in favour of an **environmentally-friendly mobility.**

+470 000 users

transported in 2020, **nearly 1M** users transported since our creation

90 territories

deploy our solutions in France, Europe and around the world

80% passenger pooling rate

on average

3,3 x cheaper

than a conventional fixed-line bus service, according to our clients

33%

of our users previously used private cars, **19%** were on foot or could not move around

4,8/5

average rating given to our services by our users

INTRODUCTION

Transport provision for rural areas in the UK has shrunk over the past half century. From the Beeching cuts to the decline in bus services over more recent history – which is particularly acute in rural areas – there is now a crisis in provision for rural communities.

The challenges of rural mobility are those of smaller populations, distributed unevenly over greater areas (along with jobs and services) and generally connected by lower capacity and less reliable networks.

- 43% of people living in rural England live more than 1 hour away from a hospital by public transport, compared to just 7% of people in urban areas*
- 47% of people living in rural England live more than 30 minutes away from a town centre by public transport, compared to just 5% of people in urban areas*
- People in rural areas travel more kilometres per year than people living in urban areas*

Since its creation, Padam Mobility aims to make smart mobility more efficient, and therefore more accessible, to sparsely populated areas. Taking care of the mobility of the inhabitants of peri-urban and rural areas by offering sustainable shared mobility solutions is a mission to which the company responds on a daily basis by implementing **on-demand transport services (DRT and Paratransit)**. To improve travel for all and facilitate access to services and jobs.

Our solutions have proved their worth in rural areas because they are easily adaptable to local issues and provide relevant answers to the problems encountered by mobility stakeholders in this scale of territory. Because they make it possible to **reduce the cost per trip, by increasing the attractiveness of services and therefore ridership, while at the same time reducing operating costs by minimising empty rides as much as possible**. Also because they can be adapted and integrated into a mobility offer by focusing on the most difficult part: providing a comprehensive service to users who are furthest away from the main routes.

*Countryside Climate Network, 2020

They particularly respond to the challenges of:



Relevance of the mobility offer

- Consideration of local constraints and adapting to the different use cases
- Complementarity with the conventional public transport offer



Quality of service

- Lower operating costs and significant improvement in the performance of DRT and Paratransit services
- Simplification of the tasks of the call centres: faster booking and processing, automatic ride dispatch



User experience and digital transition

- Reduction of booking times
- User empowerment through the introduction of new booking channels (website and mobile app)
- Improved passenger experience: real-time, multi-dates or recurring bookings, reminder notifications, ergonomic interfaces, etc.



Accessibility and sustainability

- Reduction of the carbon footprint and fine particles thanks to itinerary optimisation and ride pooling
- Adaptation to all types of vehicle fleets
- Pooling of DRT and Paratransit services for a universal and 100% accessible offer

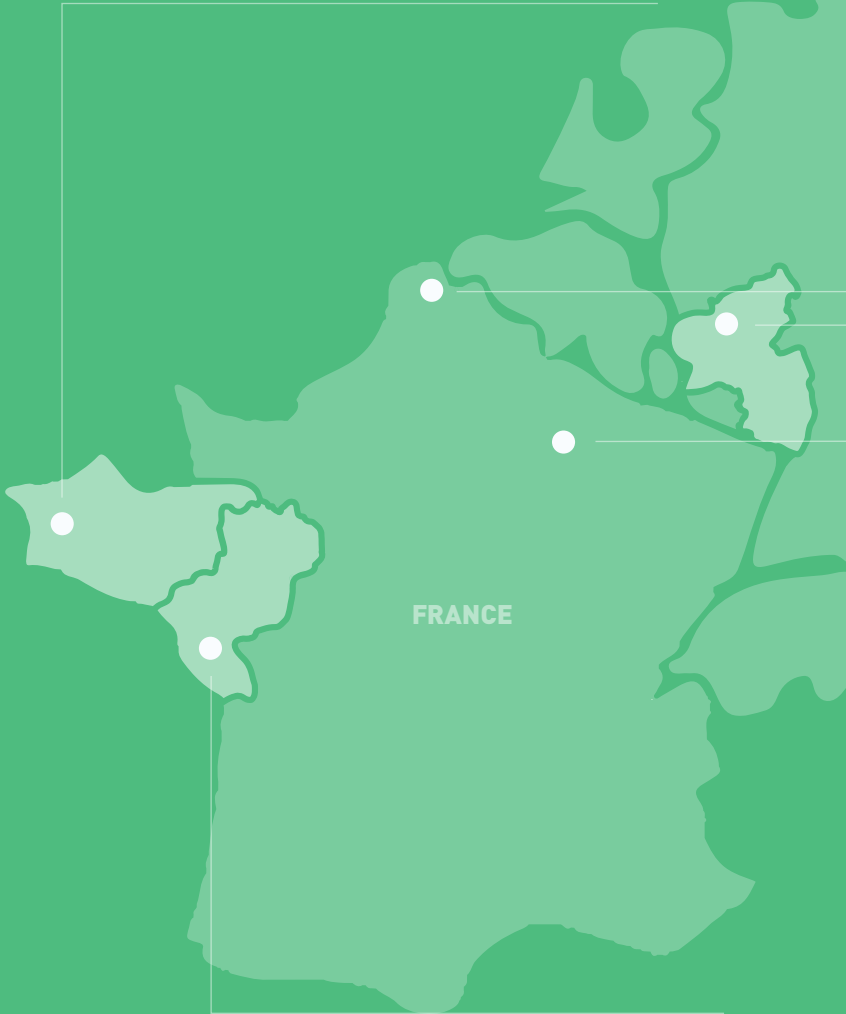
In Châlons-en-Champagne, Saint-Omer, in the Brittany or Pays de la Loire region in France, in the federal state of Rhineland-Palatinate, in Germany, Padam Mobility DRT and Paratransit solutions have been able to adapt to the local constraints and challenges of both the territories and their inhabitants in order to **improve the mobility of rural populations, reduce their dependency on private cars and increase their autonomy in their travels**. Focus on these five success stories.

BREIZHGO
Le réseau de transport public à vélo en Bretagne

BRITTANY REGION

Unify the DRT offer in several rural areas for a better quality of service and user experience

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CHÂLONS-EN-CHAMPAGNE

Responding to accessibility issues in rural areas through universal DRT

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CHÂLONS-EN-CHAMPAGNE

2019
Kéolis
ResaGo



Stops served by the RésaGo DRT service in the Châlons-en Champagne conurbation.

Realisation: Padam Mobility, February 2021
Source: SITAC

KEOLIS



Scan to access to the
service website

CHÂLONS-EN-CHAMPAGNE

Responding to accessibility issues in rural areas through universal DRT

CONTEXT

The Conurbation Community of Châlons-en Champagne (Marne, Grand-Est region, France) is made up of 46 largely rural communes, with an estimated population of 80,000 inhabitants and a population density of around 99 inhabitants/Km².

In November 2019, on the occasion of the renewal of the Public Service Delegation contract between the Conurbation Community of Châlons-en-Champagne and its transport operator Keolis, Padam Mobility was chosen to manage the conurbation's RésaGo on-demand transport services (DRT and Paratransit).

SOLUTIONS PROVIDED

The RésaGo DRT and Paratransit services complement the existing bus service in the conurbation and meet two main use cases:

- **Service of first and last kilometres:** to facilitate travel to and from the Châlons-en-Champagne train station at specific times, particularly when the conventional bus lines are no longer in service.
- **Service activity areas:** to facilitate the travels of working populations in off-peak hours to the areas of Recy, Saint-Martin, Mont-Bernard and the agricultural complex **from 4:00 am to 6:30 am and from 8:00 pm to 10:00 pm.**

Equipped with Padam Mobility technology, the DRT service is made up of a **fleet of 3 vehicles**, operated on **fixed and virtual lines**. The Paratransit service consists of a 9-seater vehicle operated in a **door-to-door configuration**, with **specific pick-up times per user** to guarantee appropriate assistance. Ride bookings are made:



By internet, on a dedicated booking website, accessible 24/7.



By phone, by contacting a call centre, available from 9am to 5pm Monday to Friday and from 10am to 4pm on Saturdays (excluding public holidays).

Users can book their rides:



Up to 1 month in advance



At the latest the day before they travel, before 5 pm,
for a morning trip.



At the latest 2h30 before their ride, for an evening trip.

RESULTS

Since its launch in November 2019, **the ridership of RésaGo services has doubled** and **more than 4,500 rides** have already been made.

“

Résago has enabled us to succeed in our bid for more inclusive and accessible mobility. By pooling a "general public" DRT and a Paratransit service, we offer a 100% universal service that offers everyone the same travel opportunities.

”



Grégoire Bonnat,
Co-founder and CEO, Padam Mobility



WHY PADAM MOBILITY?

There are many reasons why Padam Mobility was chosen to equip the RésaGo services:



Automation of the operations and in particular of the ride dispatch so that manual intervention can be dispensed with.



Flexibility and versatility of the solution which favours access to the service and the empowerment of users in their bookings.

Padam Mobility solutions were chosen in particular for their **ability to gradually increase the use of services on a constant means basis** thanks to the passenger pooling and itineraries optimisation algorithms on which they are based. In addition, they make it possible to introduce at any time and with ease **real-time booking** and to **enhance the user experience** of those services that have historically been subject only to booking in advance.



“

You are a reassuring partner. With Padam Mobility, we know where you're going. We have regular meetings and every step is clear and detailed. The product is simple to use for all stakeholders and is easy to take over.

”



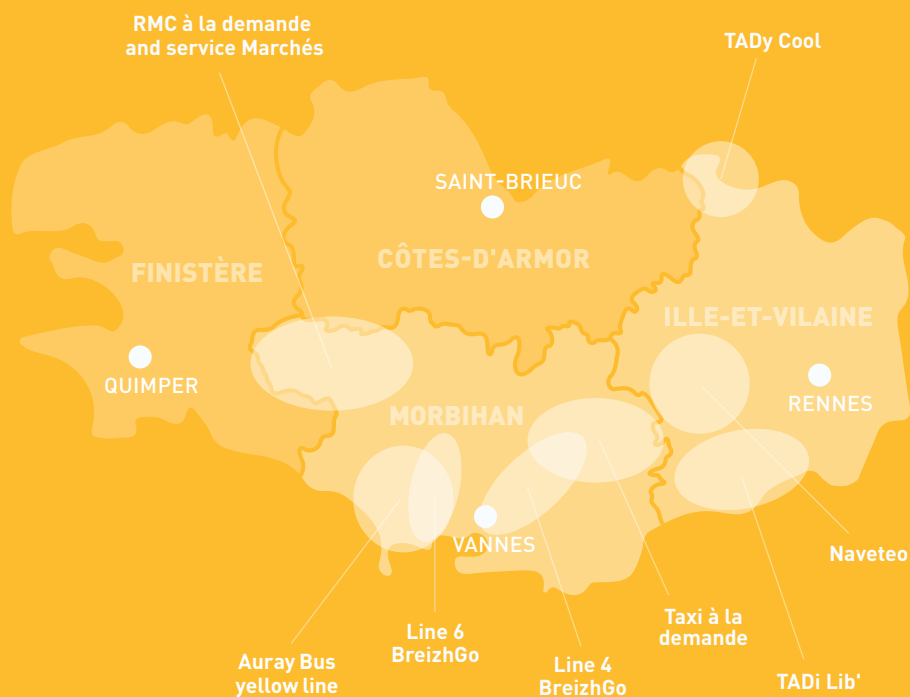
Carole Babel

Director, Keolis Châlons-en-Champagne



BRITTANY

2020
Multiple local operators
BreizhGo
Demand-Responsive Transport



Service areas for the BreizhGo DRT services in the Ille-et-Vilaine and Morbihan departments.

Realisation: Padam Mobility, February 2021
Source BreizhGo



Scan to access to the
service website

BRITTANY REGION

Unify the DRT offer in several rural areas for a better quality of service and user experience

CONTEXT

The Brittany region is the Public Transport Authority for regional and interurban transport in the 4 departments that make it up. It organises, manages and subsidises the public transport offer (train, bus including DRT, boat) under the **Breizhgo** brand for its 4.7 million inhabitants.

Until June 2020, DRT and Paratransit services of the region were managed manually. Several local transport operators were in charge of operating these services. Each one interacted directly with its affiliate operations centre to receive its service missions to be provided.

Motivated by its desire to **unify all of its on-demand transport services** under a single brand name, the Brittany region entrusted Padam Mobility with the implementation of a single **management and booking platform for its DRT and Paratransit services**, developed in partnership with Kisio Digital.

The aim of the platform is to **provide greater clarity and coherence in the regional on-demand mobility offer**, for the benefit of travels in rural areas and in response to a very wide variety of use cases.

SOLUTIONS PROVIDED

Since June 2020, the BreizhGo DRT and Paratransit services have been progressively based on the management and booking platform set up by Padam Mobility and Kisio Digital.

The "multi-territories" architecture of the Padam Mobility solution enables the different DRT and Paratransit services to be managed on the same platform while serving distinct territories and responding to different service designs (feeder, free-floating, door-to-door, virtual lines, etc.). Today, the platform brings together **more than 9 different services and transport operators** serving the departments of Ille-et-Vilaine and Morbihan. The other departments of the region are in the process of being integrated.

The BreizhGo rural DRT and Paratransit services are genuine local public transport services. They complement the regular public transport offer, encouraging the use of public transport for daily trips from municipalities that are not served by public transport (commuting to and from work). In addition, **they facilitate access to everyday services** (shops, markets, medical centres, town halls, job centres, etc.), strengthening mobility and social links in the area, particularly for isolated and/or elderly people, or people without means of transport.



IN THE ILLE-ET-VILAINE DEPARTMENT

- **TADy Cool:** with a fleet of 6 vehicles, the service enables users to reach from their homes 14 stops within the Côtes d'Emeraude Conurbation Community (9 municipalities, 31,000 inhabitants, 271 inhabitants/km²) or a regular BreizhGo line for a destination outside the Community.
- **Naveteo:** with a fleet of 8 vehicles, the service enables residents to travel from their homes to one of the 18 municipalities of the Vallons de Haute-Bretagne Conurbation Community area (44,000 inhabitants, 87 inhab/Km²) or to reach a bus stop of the BreizhGo network.
- **Tadi Lib':** with a fleet of 5 vehicles, the service covers the 20 municipalities of Bretagne Porte de Loire Conurbation Community (32,000 inhabitants, 70 inhab/Km²) for trips from home to predefined stops throughout the community.



IN THE MORBIHAN DEPARTMENT

- **Auray Bus yellow line:** with a fleet of 2 vehicles, the service serves the municipalities of the Auray Quiberon Terre Atlantique conurbation (24 municipalities, 87,000 inhabitants, 166 inhab/Km²).

- **RMC à la Demande and Service Marchés:** with a fleet of 3 vehicles, this DRT service has been set up to serve the markets of the Roi Morvan Conurbation Community territory (21 municipalities, 25,000 inhabitants, 32 inhab/Km²).
- **Taxi à la Demande:** with a fleet of 3 vehicles, the service serves the Conurbation Community territory of de l'Oust à Brocéliande (26 municipalities, 39,000 inhabitants, 61 inhab/Km²).
- **BreizhGo line 4 and 6:** on-demand extended service of lines 4 (Ploërmel – Malestroit – Vannes) and 6 (Baden - Le Bono - Plougoumelen - Auray).

Access to the BreizhGo DRT services is currently possible by **phone booking**. Booking via the **mobile app** or on the internet via a **booking website** will be effective in a second step.

BreizhGo DRT services are complemented by Paratransit services equipped with adapted vehicles, some of which are shared with DRT services. Seats for wheelchair users are available in each of these shared vehicles.

RESULTS

Taken together, the BreizhGo DRT and Paratransit services account for **more than 8,100 rides** since the first service launch in June 2020.

WHY PADAM MOBILITY?

Several reasons motivated the adoption of Padam Mobility technology:



The **optimisation of itineraries and passenger pooling within vehicles** made possible by Padam Mobility algorithms.



The possibility of **maintaining door-to-door and door-to-point** service operations, including serving points of interest, such as train stations.

The flexibility and versatility of the SaaS mode on which the Padam Mobility solution is based guarantee its continuous and quick improvement according to the needs of the community, operators and users. The Padam Mobility solution has been distinguished in particular by its ability to :

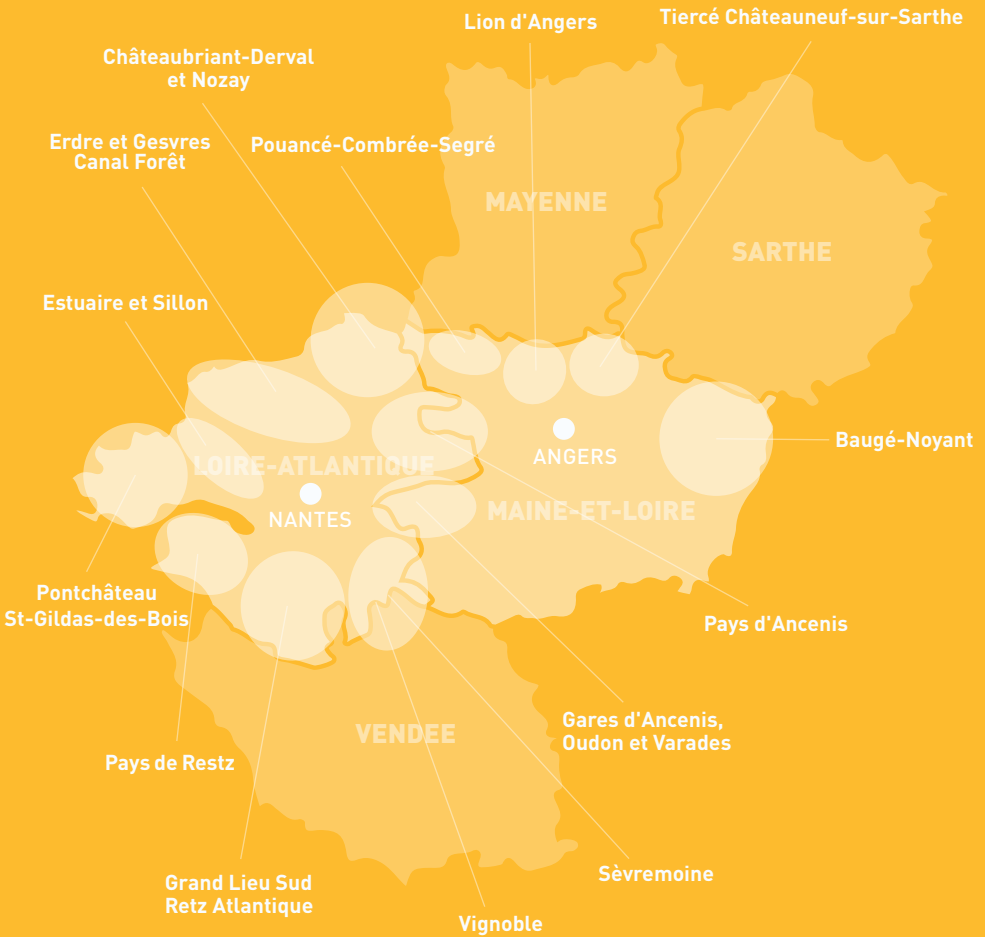
- **Ensure connections of the users' DRT rides with trains** at defined timetables.
- **Provide specific information on each PRM*** for an adapted **service** thanks to the custom fields associated with the user profiles.
- **Easily provide users with new booking channels** such as the booking website or the mobile app.

*People with Reduced Mobility



PAYS DE LA LOIRE

2020
Multiple local operators
Aleop à la Demande



Service areas of the Aleop à la Demande DRT services in the Maine-et-Loire and Loire Atlantique departments.

Realisation: Padam Mobility, February 2021
Source: Aleop Pays de la Loire



PAYS DE LA LOIRE REGION

**Homogenise and modernise
the various DRT services in
low-density areas for a more
relevant and clearer offer**

CONTEXT

The Pays de la Loire Region, in the west of France, is made up of 5 departments and has a population of over 3.7 million inhabitants and a surface area of 32,082 km². While the population density of its capital, Nantes, is over 1,200 people per km², its metropolitan area is much less dense and the region's departments include large rural areas dotted with small urban centres and villages. The population density of the regional territory is around 118 inhabitants/km².

Since January 2017, the Pays de la Loire region has been in charge of the interurban transport networks of all its departments: from bus and train services to maritime links. These networks have been supplemented by numerous local Demand-Responsive Transport services (DRT) in areas with low demand.

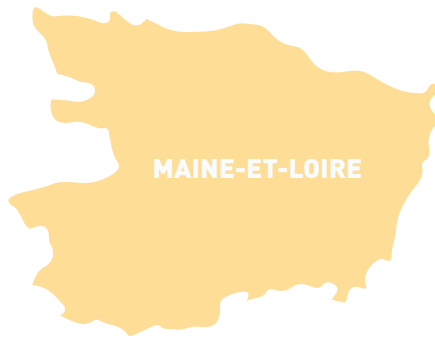
Conceived as true local services, **they enable users, seniors or non-motorised, to get more easily to the main equipment and services clusters as well as to the stops of the regular transport networks.**

The Pays de la Loire region has chosen Padam Mobility to harmonise its global on-demand transport offer:

- **To gradually develop the different departments DRT offers towards a more legible and unified offer on a regional scale under the brand name Aléop à la Demande.**
- **To progressively modernise the existing DRT services** both in terms of service designs and the booking tools made available to users.

SOLUTIONS PROVIDED

Since August 2020, Padam Mobility has been gradually combining the various department DRT services in the Pays de la Loire region to create a **single management and booking platform**. While the services in the Maine-et-Loire department are already based on Padam Mobility technology, the services in the Loire Atlantique department are in the process of being integrated.



Characteristics of the Maine-et-Loire DRT services before their migration to the Padam Mobility platform :

- 6 mobility pools
- +2 vehicles per pool, i.e. +20 vehicles in total
- 10,000 bookings per year
- Operations subcontracted to local operators
- Service design: stop-to-stop with feeder service towards service hubs
- Continuous service available throughout the day
- Booking by phone only, through a call centre



Characteristics of the Loire Atlantique DRT services before their migration to the Padam Mobility platform :

- 8 mobility pools
- Between 60,000 and 100,000 bookings per year

- Operations subcontracted to local operators
- Service design: door-to-door
- Service only available at certain times
- Booking by phone only, through a call centre

While the configuration of these first two services remains unchanged for the time being, adjustments and optimisations will be made in a second phase, in particular following various experimentations with features specific to dynamic DRT.

RESULTS

The Maine-et-Loire Aleop à la Demande DRT service has recorded almost **8300 rides** since its migration to the Padam Mobility platform in August 2020 for an average of **200 unique passengers** per month.

“

Today on the Maine-et-Loire DRT services, the Padam Mobility platform automatically selects the appropriate vehicles for the booked rides and optimises the itineraries and users' bookings. It facilitates the booking process for around ten call centres. It will eventually make it possible to ensure connections with fixed line services such as the train, particularly at peak hour. This will ensure DRT services do not replace trips that could be made on fixed lines.

”



Ziad Khoury,
Co-founder and COO, Padam Mobility



WHAT NEXT ?

The single management and booking platform will eventually simplify the overall management of **32 different DRT and Paratransit** services throughout the Pays de la Loire region:



responding to several line configurations (feeder, free-floating, door-to-door, stop-to-stop, virtual lines, etc.).



operated by around twenty transport operators spread over several mobility pools and departments.



based on a fleet of +85 vehicles, some of which are electric, first step towards the decarbonisation of rural transport.



accessible by internet through a booking website available 24 hours a day in addition to the current phone booking. A dedicated app will be launched in September 2021. It will make it possible to attract new user profiles, more comfortable with digital tools and more autonomous in their bookings.

As more Mobility as a Service (MaaS) solutions are deployed in the region, the Padam Mobility platform will be able to be easily integrated into them and used to optimise travels so that they meet the needs of rural users and make optimum use of the network.



SAINT OMER

2019
Autocars Schoonaert
Mouveo TAD



Service stop and area of the **Mouveo TAD DRT** service in Saint-Omer and its conurbation.

Realisation: Padam Mobility, February 2021

Source: Mouvéo



Scan to access to the
service website

SAINT OMER

**Modernise the existing
DRT service and guarantee
access to mobility for all
in rural areas**

CONTEXT

The Conurbation Community of Pays de Saint-Omer (Pas-de-Calais, Hauts-de-France region, France) has had a DRT service called Mouvéo TAD for several years. The Community wanted to **modernise and extend its network in order to adapt to the challenges of its territory**, which is mainly made up of rural and peri-urban municipalities with 105,000 inhabitants and a population density of 194 inhabitants/km².

In this context, Padam Mobility was selected to deploy its solution, in collaboration with Autocars Schoonaert, the local transport operator.

SOLUTIONS PROVIDED

Since September 2019 and the deployment of Padam Mobility technology, the operation of the Mouvéo TAD network has been modernised and is now based on itinerary and booking optimisation algorithms, using artificial intelligence. These algorithms also make it possible to **optimise the allocation of resources** (vehicles and drivers) and to **automate a large part of operations** to improve service quality.

With a fleet of 5 vehicles, all of which are PMR accessible, the service now operates in a **free-floating configuration** and serves peri-urban and rural areas grouped into 6 major zones, as well as notable points of interest such as the Saint-Omer train station, the clinic, the hospital, the shopping centre and the Painleve business park.

The service allows "stop-to-stop" and "door-to-door" bookings for People with Reduced Mobility. In fact, a Paratransit service is included in the Mouvéo TAD offer, which aims to provide a universal service guaranteeing access to mobility for all, even the most vulnerable, throughout the conurbation.

Mouvéo TAD is currently accessible every day from 7am to 7pm (except Sundays and public holidays) by **phone booking only**. The call centre can be reached from Monday to Friday from 8am to 6pm. Users can book their rides at the latest the day before they travel.

Real-time booking and a dedicated **booking website** are currently being set up and will be available beginning of 2021.

RESULTS

Mouvéo TAD has recorded more **than 7600 rides** since its switch to the Padam Mobility solution. It registers an average of **100 unique passengers** per month.



RHINELAND-PALATINATE

Rethinking DRT to meet the challenges of mobility and digitalisation in rural areas

CONTEXT

To enhance the attractiveness of local public transport, a leading German public transport corporation has been restructuring its transport offer, particularly around Mobility as a Service (MaaS), for several years. Faced with a multitude of economic and environmental challenges, this restructuring of the transport offer has involved **rethinking the brick of Demand-Responsive Transport and adapting it to local conditions.**

It is in this context Padam Mobility was selected to deploy its DRT solution in Rhineland-Palatinate, a rural land in south-western Germany, located between Frankfurt and Bonn. Composed of more than 2,000 small to very small municipalities for approximately 1.2 million inhabitants, the density per inhabitant of this area is around 206 inhabitants/Km², below the national average (232 inhab/Km²).

The lack of infrastructure is considered to be one of the main reasons for the demographic decline that has been observed in this region for several years.

In collaboration with its German technology partner Hacon, **Padam Mobility has set up a Demand-Responsive mobility solution that combines efficiency and flexibility to meet the needs for modernisation and digitalisation of the DRT offer in this rural area.**

SOLUTIONS IMPLEMENTED

Since September 2020, Ahrweiler (70 municipalities, 129,500 inhabitants, 449 inhab/Km²) has been served by the **new DRT network**. The expansion of the service into other areas is already planned, making the network one of the largest rural DRT services in Germany, with a targeted fleet size, run by subcontractors, of about 130 vehicles.

The service is operated in a **fixed-line configuration** with **fixed timetables**. Trips are only triggered when a booking has been made. Users have three booking channels at their disposal: a **mobile application**, a **booking website** and a **phone number** for ride booking through the call centre.

“

Together with Hacon, we have implemented a pioneering project and significantly improved the customer experience.

”



Grégoire Bonnat,
Co-founder and CEO, Padam Mobility

“

In order to achieve a high level of acceptance among the population, on-demand offers must control the whole spectre from fully flexible services to regular services. The new app-solution now facilitates access to flexible and reliable mobility options.

”



Thomas Wolf, CEO of Hacon

RESULTS



3,572 rides made since service launch



1,070 bookings made on the application



4.7/5 average service rate according to users



Up to 90% pooling rate

WHY PADAM MOBILITY ?

There are several reasons for adopting Padam Mobility technology:

- The simple and flexible service operation with fixed lines and fixed timetables.
- The efficiency of the algorithms that optimise vehicles' itineraries and loading
- The partnership with Hacon, which facilitated the integration of the DRT solution into the overall local mobility offer following a Mobility as a Service (MaaS) logic.

“

Our cooperation is a win-win situation, as a high-quality service is created for the users, which at the same time saves operating costs and has a positive impact on the overall traffic situation and the environment.

”



Sven Steinbeck, Business Development Manager
at Hacon

“

A compelling aspect of the service is its inclusivity, as it addresses the needs of different groups of people, especially those who do not have easy access to mobility options, such as people with reduced mobility. The service allows people to indicate directly when booking whether a wheelchair space is needed. In addition, the different booking options cover the preferences of all age groups; young people are used to make bookings via the app, while older people usually prefer to talk to a "real" person.

”



Gerd Overbeck, Lead New Mobility Services
at Hacon

CONCLUSION

From Châlons-en-Champagne to Saint-Omer, through Brittany, the Pays de la Loire in France or the federal state of Rhineland-Palatinate in Germany, transport operators and public authorities have jointly decided to encourage **a smart and flexible alternative mobility**, based for the most part on innovative management platforms. Thanks to on-demand transport services (DRT and Paratransit), **new ways of managing and guaranteeing access to a more inclusive and sustainable mobility** have been put in place. These means allow a **gradual transition towards carbon-free travels, reduce the impact of private cars and improve access to employment and service areas**.

The implementation of dynamic DRT and Paratransit smart solutions guarantees operators and local authorities immediate benefits:



Increased ridership and lower operating costs per trip thanks to a better user experience and the introduction of new booking channels that address wider user groups (young people, seniors, commuters, occasional users). As an example, DRT services triple their ridership on average once equipped with Padam Mobility technology.



Optimisation of resources by grouping services on a single platform to maximise service use. These platforms can also be adapted to any type of vehicle and user group while ensuring optimal allocation of resources and optimised service management.

The potential and new use cases that these on-demand transport services make it possible to apprehend open up new perspectives:

Rethinking the mobility offer as a whole

- While regular public transport is viable with a minimum of demand density, smart DRT and Paratransit services can be set up to connect to regular public transport networks, thereby increasing ridership rather than competing with them.
- In the light of the development of Mobility as a Service solutions (MaaS), DRT and Paratransit represent one of the rural mobility options that help to improve the overall coverage of a territory and seamless travels.

Adapting quickly and at no extra cost to the new use cases that have emerged as a result of the health crisis.

- The dynamic DRT and Paratransit services make it possible to set up **smart health transport services in rural areas** dedicated to the most vulnerable to serve health care or vaccination centres, to relieve congestion or to supplement regular lines in compliance with health measures.
- At a time when the health crisis is highlighting all the limits of living in an urban environment, the inhabitants of metropolises are migrating to rural areas where the living environment is more pleasant. These newcomers, who very often do not have a car (or even a driving licence), bring with them **new expectations and requirements in terms of access to a reactive mobility that adapts to their lifestyles.**



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