



Better connecting urban centres and peri-urban areas with **Demand Responsive Transport (DRT)**

ABOUT

Since 2014, Padam Mobility offers digital on-demand Public transport solutions (DRT and Paratransit) to **reconnect peri-urban and rural areas and bring communities closer together**.

To do this, Padam Mobility provides 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 :



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.

Transport authorities, operators, private companies and consulting firms trust us to **open up territories and bring communities closer together**, to optimise the mobility offer and facilitate its operations, to accompany them towards **operational excellence**, and finally to act in favour of **environmentally-friendly mobility**.

+470 000 users

transported in 2020, **more than 1M** users transported since our creation

90 territories

deploy our solutions in France, Europe, Asia and North America

80% pooling rate

in average

3,3 x less expensive

than a similar offer if operated by fixed lines

33%

of our users were previously using private cars, **19%** were walking or unable to get around

4,8/5

average rate given to our services by our users

INTRODUCTION

In the UK, population groups dependent on public transport in peri-urban areas often have difficulty accessing essential activities and services such as work, education and health care. Despite increasing urbanisation, huge areas of cities are still not fully accessible by public transport. Even in the London area, with the most advanced network of public transport in the UK, nearly **40% of the inhabitants live more than one kilometre from a public transportation stop**¹. Outside London, transport is even more car dependent, and reducing the carbon footprint of transport is increasingly urgent, as is ensuring community resilience through equitable access to jobs, education and services.

Household expenditure on transport and fuel, long commuting times, car congestion, pollution, difficult access to services and jobs: as the challenges faced by peri-urban areas and their inhabitants accumulate, **it is becoming urgent to rethink mobility on these territories.**

Since its creation, Padam Mobility aims to make more efficient, and therefore more accessible, mobility in sparsely populated areas. Providing mobility for people living in peri-urban areas by offering sustainable shared mobility solutions is Padam Mobility's mission. Its solutions, **Demand Responsive Transport services (DRT and paratransit)**, improve travel for all and facilitate access to services and jobs.

Our solutions have proven their reliability in peri-urban areas because they are easily adapted to local circumstances and provide appropriate answers to the problems encountered by mobility stakeholders on that territory's scale. By **reducing the cost per trip, they increase the attractiveness of services and therefore ridership - while reducing operating costs by minimizing empty trips.** They adapt and integrate into a mobility offer by focusing on the most difficult part: serving users away from key corridors.

In Lille, Strasbourg, Villefranche-sur-Saône and Sophia-Antipolis in France, Padam Mobility's DRT and Paratransit solutions have been able to adapt to the local constraints and challenges of both the territories and their inhabitants **to improve their mobility, reduce their dependence on private cars and increase their autonomy in their travels.** Focus on these four success stories.

¹People near transit, ITPD, 2016

Padam Mobility's **Demand Responsive Transport** (DRT and paratransit) solutions address the following issues :



Relevance of the mobility offer

- Consideration of local constraints and adaptation to the various use cases.
- Complementarity with the conventional public transport offer.



Quality of service

- Lower operating costs and significantly improved performance of DRT and paratransit.
- Easier call center tasks: faster booking and processing, automatic assignment.



User experience and digital transition

- Reduced booking delays.
- Empowering users through new booking channels (booking website and mobile application).
- Improved traveler experience: real-time, multi-date or recurring bookings, reminder notifications, ergonomic and accessible interfaces.



Accessibility and sustainability

- Reduced carbon footprint by optimising itineraries and ride pooling.
- Adaptation to all types of vehicle fleets.
- Pooling of DRT and paratransit services for a universal and fully accessible on-demand offer.



STRASBOURG

Facilitating travel within the periphery and to the centre

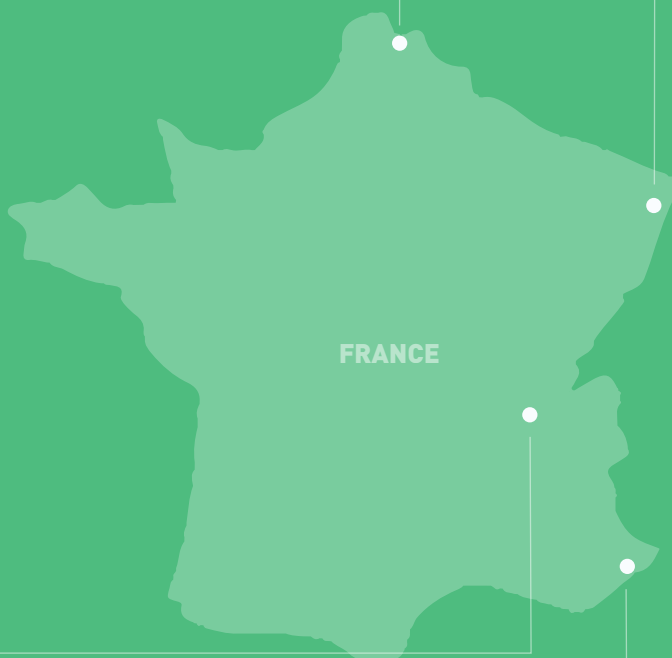
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LILLE

Bringing the peri-urban territories closer to the urban centre

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VILLEFRANCHE S/ SAÔNE

Digitaliser et optimiser son service de TàD périurbain

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SOPHIA-ANTIPOLIS

Meeting mobility needs while contributing to the digital transformation of the territory

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STRASBOURG, FRANCE

2019
CTS, Antoni
Flex'Hop



Realisation: Padam Mobility, May 2021
Source: Flex'hop



STRASBOURG

Facilitating travel within the periphery and to the centre

CONTEXT

With its large peri-urban area and very dense business district, Strasbourg Eurometropolis wanted to offer its citizens an effective mobility solution to meet the challenges of its territory: to bring the populations in the periphery closer together and to allow working people to make their commuting rides with the greatest ease.

Because it is an environmentally friendly mode of travel that is smarter, more flexible, pooled, optimized and shared, Demand-Responsive Transport has emerged as a relevant mobility solution to the various challenges faced by the Eurometropolis. In 2019, Padam Mobility was selected to deploy a DRT service in an initially defined area: Flex'Hop Z1.

Equipped with a fleet of 6 fully electric vehicles, the service was first tested with the operator Antoni in 13 rural and peri-urban municipalities in the western and south-western perimeter of the Eurometropole. **The service is appealing: 1,300 to 1,400 users are benefiting from it every week.** In March 2021, Flex'Hop Z1 became Flex'Hop and is now available in 25 municipalities. **With 20 vehicles, operated this time by Keolis Strasbourg, more than 270 stops are served and more than 4,000 possible itineraries are offered.**

SOLUTION PROVIDED

Flex'Hop's DRT service **strengthens the CTS's peri-urban transportation offer.** Its feeder configuration **connects out-lying municipalities to mainline transport services** such as trains, tramways and interurban bus lines. Flex'Hop also makes it possible to optimise resources and itineraries and to **offer ergonomic, intuitive and user-friendly booking tools:** a mobile application, a booking website, and a call centre (for booking by phone).

The service operates 7 days a week, from 5.am to midnight and bookings can be made from 30 minutes to 15 days before departure.

RESULTS

More than **105 000 rides** have been made since the launch of Flex'Hop. Up to **15 000 rides** are made each month thanks to more than **4 000 itinerary possibilities.**

WHY PADAM MOBILITY ?

The Strasbourg Eurometropolis has trusted Padam Mobility's DRT solutions for several reasons:

- **Flexibility of its SaaS software**, which allows a quick and efficient evolution of the service according to the needs of the territory and the users.
- **Quality of service offered to the users and the operator** convinced the Eurometropolis to renew Padam Mobility solutions for the extension of the service to the rest of the municipalities of the territory.

“

This new innovative service will offer a flexible, fast and environmentally friendly service that will meet the mobility needs of residents and employees in the less densely populated areas of the agglomeration, enabling access to areas close to the city that are currently difficult to reach by the conventional bus network.

”



Robert Herrmann,
President of the Strasbourg Eurometropolis



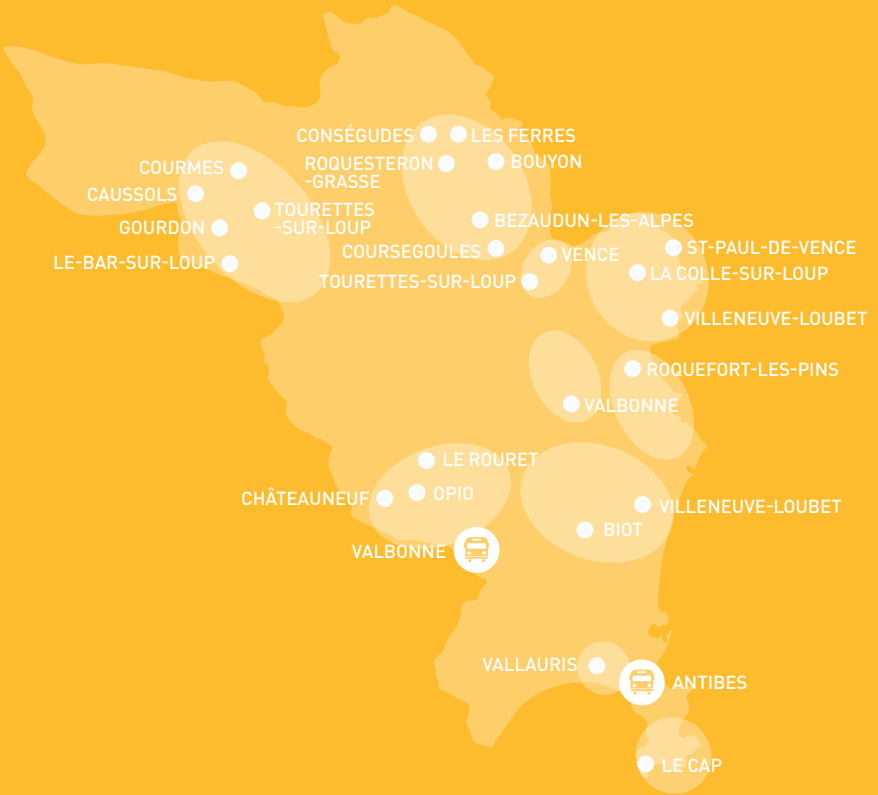


SOPHIA-ANTIPOLIS, FRANCE

2019

Envibus

Icìlà



Bus station



DRT Icìlà service areas

Realisation: Padam Mobility, February 2020

Source: Envibus



SOPHIA-ANTIPOLIS

Meeting mobility needs while contributing to the digital transformation of the territory

CONTEXT

The Sophia Antipolis Urban Community (CASA), located near Nice, hosts the largest technology park in France. The agglomeration is composed of 21 municipalities. It includes nearly 2,500 companies and more than 68,000 jobs in an area of 24 km². Improving daily mobility for all user profiles is a crucial issue for the CASA. Since 2019, the Urban Community has been deploying a Demand-Responsive Transport service to meet the numerous mobility needs in its peri-urban areas. The CASA, wishing to contribute at the same time to the digital transformation of its territory, has evaluated the Padam Mobility DRT solutions as the most appropriate to meet this challenge.

SOLUTIONS PROVIDED

The Demand-Responsive Transport service, called Icilà, was initially tested in two zones with 12 vehicles. **The users were mainly young people attending school in the region and people working in the Sophia-Antipolis technology park.** A third zone (Antibes-Vallorès) should be deployed in the next few months.

The service is operated by the local transport operator Envia. It is designed following a feeder service configuration **to efficiently connect the less well-served areas to the urban public transportation network.** Users can book their ride from 10 days to 2 hours before departure, via the usual interfaces deployed by Padam Mobility: a mobile application and a booking website. The service is available Monday to Friday from 6:30.am to 7.pm and Saturday from 9.am to 12.pm and 2.pm to 5:30.pm.

An interface for the call centre makes it easier for teleoperators to take bookings by phone, while a management interface allows the operator to manage and monitor all aspects of the service in real-time: bookings, users' feedbacks, vehicles, driver shifts, lines, etc. A marketing feature even allows the operator to communicate instantly with all users by sending specific notifications that are particularly useful to communicate on an incident, a promotional offer or a practical information such as the operating hours.

Given the success of the Icilà DRT service, the CASA is considering the implementation of several innovations on the regular lines of its bus network. In particular, the introduction of a non-competition principle with its conventional network's fixed lines is being studied.

RESULTS

The Icilà service records **up to 7,500 rides per month**. In total, more than **109,000 rides** have been made since its launch, with an average rating of 4.8/5 by users.

WHY PADAM MOBILITY ?

The Sophia Antipolis Urban Community (CASA) has selected Padam Mobility for its:

- **Ergonomic and intuitive user booking interfaces**, which allow quick access and easy booking management.
- **Effective itinerary optimisation and passenger pooling algorithms**, which make it possible to manage increasingly large flows of people and improve the service, regardless of the number of users transported, the size of the territory or the mobility needs to be addressed.
- **Ability to automate operations and in particular the assignment of rides** without any manual intervention, thus meeting the challenge of digitising and modernising mobility services in the Urban Community.

“

Since the main users of the Sophia Antipolis DRT are young people in middle and high school, Padam Mobility will facilitate and simplify the booking of these passengers who are used to smartphone technology.

”



Thierry Occelli,
Sophia Antipolis Urban Community (CASA)





LILLE, FRANCE

2019
Keolis (Lille)
Ilévia réservation



Tren station



Railway lines (metro, train, tram)



DRT Ilévia réservation service areas

Realisation: Padam Mobility, February 2021

Source: Keolis Lille



LILLE

Bringing the peri-urban territories closer to the urban centre

CONTEXT

Ilévia Reservation DRT service was born from the desire of the European Metropolis of Lille (MEL):

- **to connect its peri-urban territories with its centre** by developing a real mobility package,
- **to optimise cost** by transforming certain unprofitable but essential fixed bus lines into on-demand lines.

Since January 2019 and in partnership with Keolis Lille, Padam Mobility has been deploying its DRT solutions **to connect 73 peri-urban municipalities of the Lille Metropolis to the rest of its public transport network.**

SOLUTIONS PROVIDED

The Ilevia Reservation DRT service is operated by Keolis Lille and is based on multiple configurations to **meet the different needs and uses encountered by all commuters and territories of the MEL during the day and evening**. 21 virtual lines spread over all the municipalities of the Metropolis are available alongside traditional network lines and offer a feeder solution to key transport stops such as the Tourcoing city-centre metro stop.

Users have access to the service from Monday to Sunday from 6.30.am to 12.30.am via the interfaces usually deployed by Padam Mobility: a user application or a booking website. Bookings by phone are also possible via a call centre at least one hour before departure.

In addition, as part of a Mobility-as-a-Service (MaaS) logic, the service is integrated into the trip planner of the Illévia application developed by Kisio Digital. **The aim is to enable every user in the Lille area to plan a journey by any means of transport in a single step and thus seamlessly reach his/her destination**. The integration of DRT to the trip planner allows the user looking for a ride in the Ilevia app to directly access the search page of the Ilevia Reservation app. His/her origin and destination search fields are automatically filled in. All he/she has to do then is to choose and confirm his/her ride.

RESULTS

The use of the Ilevia Reservation DRT service has exceeded all expectations: nearly 20,000 bookings were recorded in 2019, while the MEL was expecting 3,000!

More than **78,800 rides** have been made since the launch of the service which registers up to **4,200 rides** per month and an average rating of 4.9/5 by users.

WHY PADAM MOBILITY ?

Padam Mobility's DRT solutions have convinced the European Metropolis of Lille for the following reasons:

- **The efficient algorithms on which they are based:** which offer the possibility of booking for several dates, in advance or at the last minute, thus giving users more freedom in their travel.
- **The guarantee to serve the stops of the structuring network at specific times:** which allows users to move around smoothly, even when interconnected with a fixed mode of transport.
- **Their flexibility:** which allows new service configurations and almost instantaneous adjustments.
- **Their ability to be easily integrated into a mobility package and in a Mobility-as-a-Service (MaaS) logic:** a key issue for the MEL, which aspires to become a model in this area at a European level.

“

The idea is simple: we guarantee a departure at least every hour from every town in the metropolis. Users can book one hour in advance instead of half a day in advance.

”



Gilles Fargier,
General Manager de Keolis Lille

“

It is crucial that our solutions and interfaces are compatible with MaaS. For our clients, this is a fundamental advantage that allows them to make their transport offer more visible and easily understandable.

”



Ziad Khoury,
Co-founder and COO Padam Mobility





VILLEFRANCHE-SUR-SAÔNE, FRANCE

2019
Keolis
Résalib



Train station



DRT line served by the RésaLib service

Realisation: Padam Mobility, May 2021

Source: Résalib



VILLEFRANCHE S/ SAÔNE

Digitalisation and optimisation of peri-urban DRT services

CONTEXT

The SYTRAL is the Public Transport Authority for the Lyon metropolitan area and the Rhône department. Since 2019 the Villefranche-sur-Saône agglomeration has had a Demand- Responsive Transport service (Réalib) operated by Keolis (formerly CarPostal) to serve its peri-urban areas. **The service is fully integrated into the urban public transport network, Libellule.** Given its success and to increase its efficiency, the SYTRAL decided in 2019 to digitalise it and to entrust its optimisation to Padam Mobility.

SOLUTIONS PROVIDED

The Résalib service is configured to serve the stops of the territory's structuring transport network. Three vehicles spread over four lines (1 zonal line and 3 virtual lines) make it possible to reach the Villefranche-sur-Saône train station from the outskirts of the city.

The Résalib A line allows users to travel to all the stops on the line at the time they want, without any constraints. The Résalib B, E and F lines are virtual lines that serve the entire agglomeration. They are operated following established itineraries and theoretical timetables.

Users have access to the service from Monday to Sunday from 1.p.m to 11.p.m via the interfaces usually deployed by Padam Mobility: a user application or a booking website. Booking by phone is also possible through a call centre.

RESULTS

Résalib has recorded **16,000 rides** since its launch and is experiencing up to **1,400 rides** per month with a pooling rate of up to **80%**.

WHY PADAM MOBILITY ?

The SYTRAL has chosen Padam Mobility for the following reasons:

- **The interconnection of its DRT solutions with the existing transport network**, to complement it without competing with it.
- **The flexibility of its solutions**, which allow the simultaneous management of different service configurations, constraints and use cases (cohabitation of fixed line and virtual line, consideration of specific timetables, DRT and Paratransit mutualisation).
- **Ergonomic and intuitive interfaces** that guarantee a seamless user experience and quick booking

In addition, Padam Mobility convinced Keolis with its **expertise in public transport and the quality of its Customer & Operations support**, which enabled it to quickly position itself as a true trust partner.



CONCLUSION

In Lille, Sophia-Antipolis, Strasbourg and Villefranche-sur-Saône, transport operators and public authorities have jointly decided to **encourage smart and flexible alternative mobility solutions, based on innovative on-demand services**. Thanks to DRT, new means of **providing access to a more inclusive and sustainable mobility** have been implemented. Means that allow a gradual transition towards more virtuous travels, **reduce the use of the private car and contribute to the redesign of a polycentric and local peri-urban area**. Where access to services and jobs is not conditional on owning a car or having to travel through the centre.

DRT ensures that both operators and the community will benefit from immediate advantages:



Increased ridership and lower operating costs per ride thanks to an improved user experience and the introduction of new booking channels, which allows targeting broader groups of users (youth, seniors, commuters, occasional users). *Once equipped with Padam Mobility technology, DRT services triple their ridership on average.*



Reducing the use of private cars, congestion and pollution. DRT is not only a relevant alternative to the private car (in terms of cost, travel time, freedom from parking constraints, etc.), it also offers a more virtuous way to travel. *In Strasbourg, Padam Mobility's DRT has made it possible for households to do without their second car.*



The possibilities and use cases created by Demand-Responsive Transport open up several perspectives:

- While conventional public transport is sustainable with a minimum of demand density, **smart DRT services can connect to conventional public transport networks, thus increasing their ridership rather than competing with them.**
- DRT makes it possible to **provide concrete alternatives to the private car in peri-urban areas** with constant population growth. The population living in these areas has **new expectations and demands in terms of access to local and reactive mobility that adapts to their lifestyles**, which tend to be less dependent on large urban centres. In this sense, **DRT has a role to play in enabling territories to adapt quickly to new urban changes.**

In the context of developing service-based mobility offers (MaaS: Mobility-as-a-Service), the peri-urban area raises key issues: seamless mobility offers and a better connection between territories. On these two points, DRT is a key lever both in terms of the travel possibilities it offers and its **potential for integration with the other players in the mobility ecosystem and beyond** (passenger information, ticketing, route calculator, personal services or services for the disabled, etc.)



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