
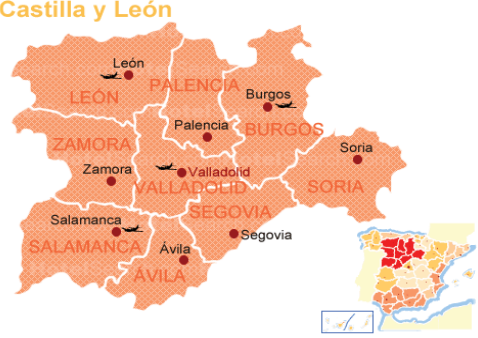


NR.	SECTION	DESCRIPTION
0.	Photographs	
1.	Title of the practice	<i>Transport on Demand in the province of Burgos (P2)</i>
2.	Precise theme/issue tackled by the practice	Public transport service for passengers in rural areas based on previous requests and new information technologies.
3.	Objectives of the practice	To provide a transport service for inhabitants of small isolated villages with poor connections; the aim is to cover mobility needs for access to basic services by maximising existing services.
4.	Location	<p>- Country: Spain</p> <p>- Region or District or Municipality: Autonomous Community of Castilla-Leon, made up of 9 provinces: Ávila, Burgos, León, Palencia, Salamanca, Segovia, Soria, Valladolid and Zamora.</p>  <p>The total surface area of the Community of Castilla-Leon is 94,226 Km², and has 2,557,330 inhabitants, which makes of it one of the largest regions in Europe.</p> <p>The demographic density is 27 inhabitants/km², which makes of it one of the zones of the European Union (115 inhabitants/km²) with lowest population density, as well as the third least populated region in Spain (average 78 inhabitants/km²)</p> <p>What is significant in this case is the large number of centres of population (almost 6,000) grouped into small municipalities, which is greater than any other region in Spain: 2,249 municipalities; only 274 have over 1,000 inhabitants; only 50 have more than 5,000.</p>
5.	Detailed description of the practice	
	Origin:	<p>Most of the population is concentrated in the most important urban nuclei, which are basically provincial capitals, while the large number of small municipalities is a significant factor. The large number of widely scattered municipalities with low, shrinking and aging populations is an important point of contrast.</p> <p>The wide dispersion and low density of the population quite logically has direct effects on the cost of public service provision. A consequence of this it is a large amount of rural traffic that connects in most cases with the capital of the province or region via extremely long itineraries and journeys with a low number of passengers, with a profitability that in many cases reaches deficit levels, which in turn makes them difficult to maintain.</p>

This situation has forced the Regional Government of Castilla-Leon to make sizeable financial investments to guarantee the maintenance of a rural transport system. By way of a specific example, in 2008 over 12 million euros were spent on aid to develop loss-making regular passenger transport services operating on rural itineraries. Public passenger-carrying transport services in Castilla-Leon are currently provided via 150 Autonomous Regular Service Concessionaires (services subject to fixed times and routes) and 95 Special Transport Administrative Authorisations (fixed route services with more flexible conditions). This extensive network makes it possible to provide transport services to practically all the municipalities in the region. However, given the widely scattered nature of the population, there are still small settlements that lack this essential service.

At the same time, it is considered that it is now necessary to adapt the present concession system to new mobility needs that are demanded by society, to guarantee access to basic services such as health, education, culture, tourism and leisure. To achieve these objectives, strategies have been developed to make use of the potential that new information and knowledge technologies provide. Using these premises as a basis, the Development Department of the Regional Government of Castilla-Leon has implemented a new transport management system based on previous requests from citizens, called "Transport on Demand", directed and organised from a "Virtual Transport Centre".

Timescale:

The pilot project was implemented in 2004 in Barco de Ávila, which led to the public tender and subsequent mass extension up to the date of writing.

Bodies involved/implementation:

- Promoter: Development Department of the Regional Government of Castilla-Leon.
- Applicant: Town Councils.
- Another key group are the transport companies bidding for the routes.

Process and detailed content of the practice:

Transport on Demand consists of a system where the service is planned because the user has interacted with the Administration using telephonic and telematics methods. In other words, the service is not established unless there is prior demand for it. This system operates in zones, time scales or types of operation whose existence is not economically justifiable, or in case the creation of a conventional bus service is impossible due to particular characteristics. This system avoids the phenomenon of empty 50-seat buses running through the villages of Castilla-Leon.

Transport on Demand Virtual Centre

The Centre sets out to centralise management of the transport services that cover the most isolated and poorly connected rural areas in the region. The Centre is called the "TRANSPORT ON DEMAND VIRTUAL CENTRE", managed and directed by the Regional Transport Administration.

This project was born with the philosophy of reaching all "important settlements", this being understood as referring to places with four or five people upwards.

Operating the initiative is basically simple but it does require an advanced and complex technology basis for it to work correctly. The system is therefore made up of the following elements:

- Transport on Demand Virtual Centre Exchange, with the following functions:
 - Collection of reservations for transport services.
 - Organisation of journeys: according to reservations the resources are managed.
 - Management of communication between the Centre, the on-board unit and the terminals for provision of information to users.
- On-board unit + driver console, enabling:
 - Data concerning the position every time a stop in the route is reached have to be sent to the Control Centre.
 - Messages received and sent by the driver: warnings, queries, etc.
- User “Information Terminals”, which enable the user to know:
 - Vehicle arrivals at stops on the route (requested by user).
 - Free seats (unreserved until end of route).
 - Incidents on the route (text sent from Control Centre).

Operational layout

Making use of these elements, the operational cycle develops as follows: the future passenger contacts the Transport on Demand Virtual Centre via a free telephone call.

In the Centre - where all the calls from users demanding the transport service are received- a transport operator manages the request so that it is assigned a specific vehicle that must then go through the zone requesting the service.

The locations having the service are provided with information panels connected to the Virtual Centre, which provide residents with information about the situation of the bus in the route and any other incident that might occur.

To transmit this information, the vehicles providing the service have an on-board unit notifying the arrival times for each scheduled stop. The system guarantees that the passenger travelling in the rural environment is appropriately attended.

Legal framework:

- 1) Provisional authorisation (art. 72 of Law 30/1992 on the Legal Regime of Public Administrations).
 - Facilitates the immediate implementation of the service.
 - Prior meeting with Local Governments and Organisations.
 - Prior agreement with concessionaires.
 - Resolution.
- 2) Service signalling: panels and information posters.

	<p>3) Public presentation.</p> <p>4) Information for user: Information leaflet mailed to all homes in each location.</p> <p>5) Definitive authorisation: Modification of legal titles (normal procedure):</p> <ul style="list-style-type: none"> • Public information • Concessionaire Hearing <p>6) Pleadings by Local Governments.</p> <p>7) Report from the Transport Council.</p> <p>8) Incorporation of special concessions/authorisations.</p> <p><u>Financial framework:</u></p> <p>The service has currently 685 routes in operation in the 9 provinces of Castilla León; investment of over 15 million euros from the Development Department of the Regional Government. Leon is the province that receives the greatest part of this financing, taking 37% of the Regional Government budget given over to transport.</p> <p>On the other hand, provinces such as Zamora receive just the 12%. Because of its geographical situation and particular characteristics, Leon is one of the high priority zones for Transport on Demand program; this is one of the most ambitious initiatives within the Development Department budget:</p> <ul style="list-style-type: none"> • It is configured as a public service obligation. • The greater part is financed by the Administration. • The user only pays 1 euro, universal price. • It involves on-going analysis of the economic-financial balance of the concession or authorisation. • Cost: ±16,000.000 € <ul style="list-style-type: none"> - Investment (system, technology): ±8,000.000 € - Annual operating cost: ±8,000.000 € <p><u>Use degree (%): users/total population:</u></p> <p>The Transport on Demand service implemented throughout the Region of Castilla-Leon has reached the figure of one million users. It currently provides service to a total of 3.108 population centres and benefits 935.507 residents of Castilla-Leon. The user profile consists of 66.69% women and 63.64% over 65 years old. Users give a score of 4.75 out of 5 when asked to assess the “Transport on Demand” service in general, along with 4.79 for vehicle comfort.</p>
<p>6.</p>	<p>Evaluation</p> <p><u>Possible demonstrated results (through indicators):</u></p> <p>In 2011, only 85,830 journeys were carried out of the 212,536 possible journeys to be done using regular services. In other words, with Transport on Demand the 59.62% of conventional journeys were saved, which means that 126,706 journeys did not take place with empty vehicles throughout the region.</p>

	<p>This means that, in comparison to regular services, Transport on Demand produce savings of 1,920.41 litres of fuel. The ecological benefits are estimated in terms of the saved fuel avoiding atmospheric emissions of over 5,000 tons* of CO₂, which gives an idea as to the extent to which Transport on Demand means Green Transport.</p> <p>* <i>Diesel vehicle emissions are estimated at 2.65 kg. /litre of fuel in ideal combustion conditions.</i></p> <p><u>Possible success factors:</u></p> <p>The success of the experience can be summarised in the following points:</p> <ul style="list-style-type: none"> ❖ Benefits for the user: <ul style="list-style-type: none"> - Transport service available - when it is demanded- in most locations in the region. - Certainty of service provision. - Speed of service, only making the necessary stops. - Real time information on arrivals via the information panels at the stops. ❖ Benefits for the transport operator: <ul style="list-style-type: none"> - Reduction of operational costs, more optimal routes according to demand. - Increase in number of passengers thanks to service improvements. - Improvement of image towards users and Administration. ❖ Benefits to Administration: <ul style="list-style-type: none"> - Analytical tool for provision of a quality service. - Greater control over the transport operators. - Application of results to other transport routes in the region. <p><u>Difficulties encountered:</u></p> <p>The application of savings during the last year in accordance with austerity measures in force. Transport on demand undergoing a reduction of up to 50% of services from 1st August 2012 and the price of tickets increasing from 1 to 2 euros as a result of the imminent reduction in a 30% of the aid the Regional Government was currently providing to loss-making lines.</p>	
7.	<p>Lessons learnt from the practice</p>	<p>The importance of optimising resources when the critical mass is not wide/big enough to make the services profitable <i>per se</i>.</p> <p>The difficulties of socio-economic contexts as the present Spanish one for provision of continuity to services highly dependent on governmental co-financing.</p>
8.	<p>Contact Information</p>	<p>Ángeles García Sanz GMV Transport and Mobility www.gmv.com magarcia@gmv.com</p>