

## **The West-Brabant Initiative: Towards an improvement of accessibility of public transport**

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### **Samenvatting**

De organisatie van het openbaar vervoer in Nederland is versnipperd. Om een 100% toegankelijk systeem voor iedereen te creëren, is nauwe samenwerking tussen alle betrokken partijen van groot belang. Teneinde de kosten voor het CVV te beperken en tegelijkertijd de minder validen zo zelfstandig mogelijk te laten reizen, is een goede toegankelijkheid van het reguliere openbaar vervoer een absolute must. Het West-Brabant initiatief toont aan dat samenwerking kan bijdragen aan een verbetering van de kwaliteit van het openbaar vervoer. Een budget van €7 miljoen zal de komende jaren worden geïnvesteerd om het OV in West-Brabant toegankelijk te maken, de eerste resultaten lijken positief. Diverse projecten hebben de nabijheid en beschikbaarheid van het OV vergroot, bushaltes worden volgens de diverse reglementen en wenkenbladen aangepast en de gehele busvloot zal vervangen worden door 100% toegankelijk materieel. De bereidheid tot samenwerken, significante budgetten en een duidelijke verdeling van de verantwoordelijkheden en taken lijken de belangrijkste drijfveer achter het initiatief. Samenwerking is inderdaad topsport en kan wellicht als een van de belangrijkste succes- en faalfactoren van menig project (zowel in Nederland als daarbuiten) worden beschouwd.

### **Summary**

Public Transport in the Netherlands is organised in a scattered way. To achieve full accessibility of the system, close co-operation among all the parties involved is necessary. In order to lower the costs for on-demand transport and to let impaired people travel independently, accessibility of regular public transport is an absolute must. The West-Brabant Initiative shows that close co-operation can indeed contribute to an improved quality of public transport. €7.0 million will be invested in the coming years for accessibility of public transport, preliminary results seem positive. Projects have start to improve vicinity and availability of the public transport system, bus stops are being adapted according to the latest requirements and the complete bus fleet will be transited to 100% accessible vehicles. Technology plays an important role in the initiative, but is certainly not the most important factor. Willingness by all parties, significant budgets and clear division of responsibilities are the main driving force behind the initiative.

## **1. Introduction**

As the population in the Netherlands ages, the need for facilities for physically or mentally impaired people increases. In 2030 around 35% of the Dutch population will be 55 years or older (25% will be over 65). One of the policy fields of the Dutch government is to improve the accessibility of the public transport system, to enable impaired people to travel independently. For example, by the year 2010, 46% of all bus stops in the Netherlands should be fully accessible. By meeting this goal, 68% of the target group for impaired people would be achieved (KPVV, 2006). Originally, full accessibility by the year 2010 was the initial goal.

Accessibility of public transport can only be achieved by close co-operation among all the parties involved and a strong investment in both infrastructure (among which bus stops), vehicles and travel information. This paper describes the West-Brabant Initiative, which covers a mainly rural area and the cities of Breda, Roosendaal and Bergen op Zoom in the Southwest part of the Netherlands. Here, all local authorities co-operate to improve the accessibility of the public transport system by investing over €7.0 million in the next years. The projects within the initiative show that technology alone is not sufficient to improve accessibility in public transport, but that mutual co-operation among all the responsible parties involved is crucial to achieve a satisfactory level of accessibility of public transport.

## **2. Public and On-Demand Transport in West-Brabant**

The public transport system in West-Brabant consists of:

- a railway system;
- a system of bus lines;
- an on demand system.

The railway connection exists between the larger cities in the area and several bus lines connect the rural villages with the main cities. The main bus lines in the area are presented below (figure 1). Apart from this, a flexible – door to door – on demand system (known as CVV) is put into operation in order to enable mainly impaired or elderly people to travel independently.

The responsibility for public (and on-demand) transport in West-Brabant, like in many other areas in the Netherlands, is scattered. The Ministry of Transport, Public Works and Water

Management and its operator NS (Dutch Railways) are responsible for the railway system. The Province of Brabant is the authority for the bus lines that run through West-Brabant. That means that the authority is responsible for the level of service (frequencies), routes and travel information. There is currently one operator, called BBA that runs all the bus services according to their contract until the beginning of December 2006. A new concession starts and Connexxion will be the new operator for 8 years. The CVV-authority consists of representatives of 18 local governments (and the provincial authority, see figure 2) in West-Brabant. The authority (via the partners) covers the majority of the costs for this transport system, which is directly related to the use of the system (the more users, the more costs). The CVV-system is a system that is operational for 24 hours a day, 7 days per week. Their operator is called PZN (which is related to BBA) and they use (special) taxi-vehicles of local taxi companies to run the CVV-services. The contract of PZN runs until the end of 2008.



Figure 1: The main bus-lines in West-Brabant



**Figure 2:** The eighteen municipality's in West-Brabant

Both bus- and CVV transport is subsidised for 50% and 85% respectively. Impaired (and to some extent elderly) people can travel by CVV for the same price as the regular public transport, if they are unable to walk independently for more than 800 meters, or unable to stand for more than five minutes. The tariff system of the CVV transport is the same as the current bus system: passengers pay per zone. The prices are different for 3 target groups:

- Standard travellers (€1,55 per zone);
- People with an indication for so-called Wvg, the Dutch Law of supplies for impaired people (€0,45 per zone, which is the same as for regular public transport);
- Seniors who are 65 years or older (€1,10 per zone).

The lowest tariff isn't valid for trips to medical appointments, work or day-care facilities. In the Netherlands are a lot of others special local transport-facilities for those trips.

More than 50.000 travellers have made 1,2 million trips by CVV in West-Brabant in 2005 ([www.deeltaxi-westbrabant.nl](http://www.deeltaxi-westbrabant.nl), 2006). In the total 'mobility market', the CVV takes in a position between the individual taxi and the regular public transport. Main functions of CVV are:

1. To offer a possibility for impaired people to travel independently.
2. To offer a possibility to travel on low volume connections where currently no public transport exists.

As every trip made by CVV is partly subsidised (with a maximum of 85%, on the contrary to the 50% subsidy of regular public transport), the costs for CVV will be unbearable within the next decade. This is why a taskforce cost reduction has started in 2003 to try to find cheaper alternatives to cut the operational costs of the on demand transport system. The following categories of alternatives were determined:

1. Investment in infrastructure for a better accessibility of regular public transport
2. Purchase of accessible bus fleets and accompanying materials
3. Rethink the criteria for subsidies for impaired people
4. Additional small scale transport and a better connection between regular and on demand public transport.

The regular and on-demand transport in West-Brabant (as well as in the other parts of the Netherlands, perhaps even Europe), together offer 1 system of services that cover the transport needs in the area. Regular public transport focuses more on bundled volumes, whereas CVV is more applicable and efficient for low volumes and thin rural lines. Both transport systems overlap, as is indicated in the figure below (figure 3).

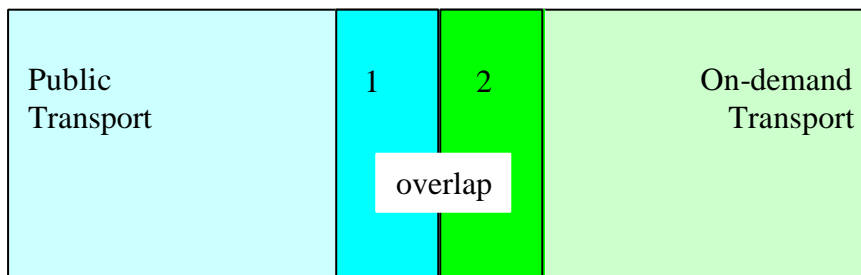


Figure 3: Overlaps between regular and on demand public transport

In the overlapping area, two situations could be possible:

1. Traffic volumes by public transport are too thin to offer a big (yellow) bus
2. Traffic volumes by CVV are too heavy, so could possibly be replaced by a regular bus

The basic assumption is that the overall package can be achieved at minimal costs.

Analyses of the trips made by CVV show that the on-demand service mostly runs on the same routes as the major bus lines in most of the areas, resulting in a situation where, (sometimes)

almost empty, subsidised buses ‘compete’ with the even better subsidised CVV-transport. Due to a lack of accessibility of the regular bus system, impaired and elderly people are more or less forced to use the CVV transport. Whereas the use of the public transport in West-Brabant hardly increased during the last couple of years, the use of the CVV-system seems to subside in its own success. In the end it will be impossible to continue this situation, as the overall subsidies will rather be reduced than increased during the coming years. The figures below show an example of the usage of CVV users in the city of Breda (170.000 inhabitants). Figure 4 gives an indication of trips made with an origin or a destination outside the borders of the municipality. Figure 5 shows the routes of CVV trips made within the city. As one can see, the lines in figure 5 correspond more or less with the public transport lines in figure 1.

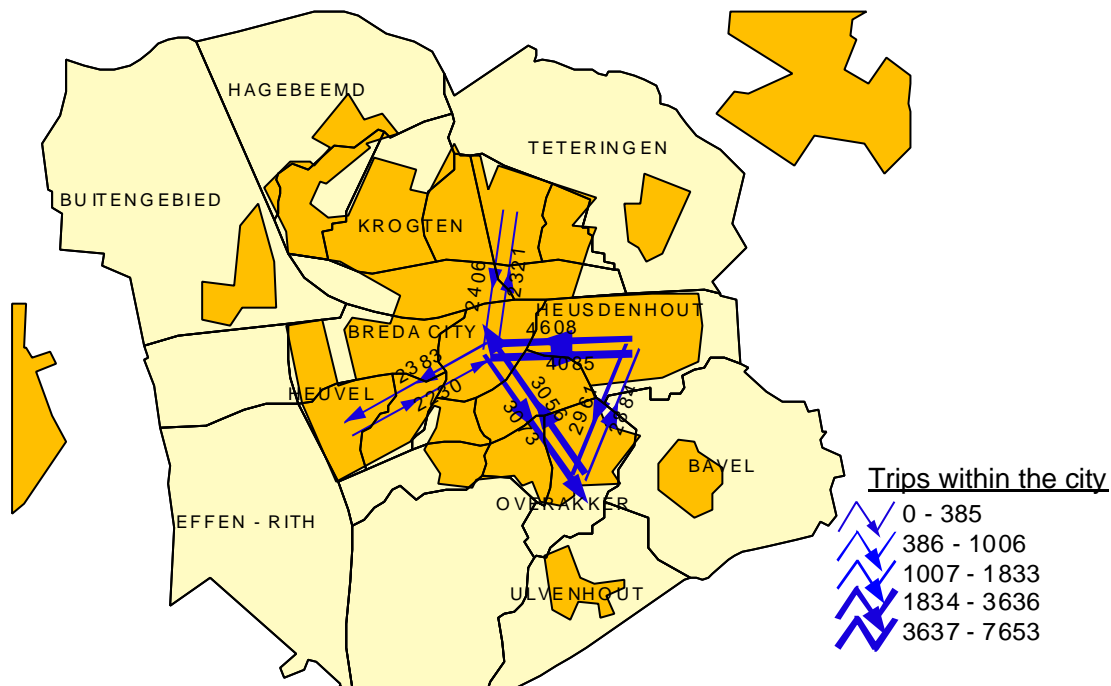
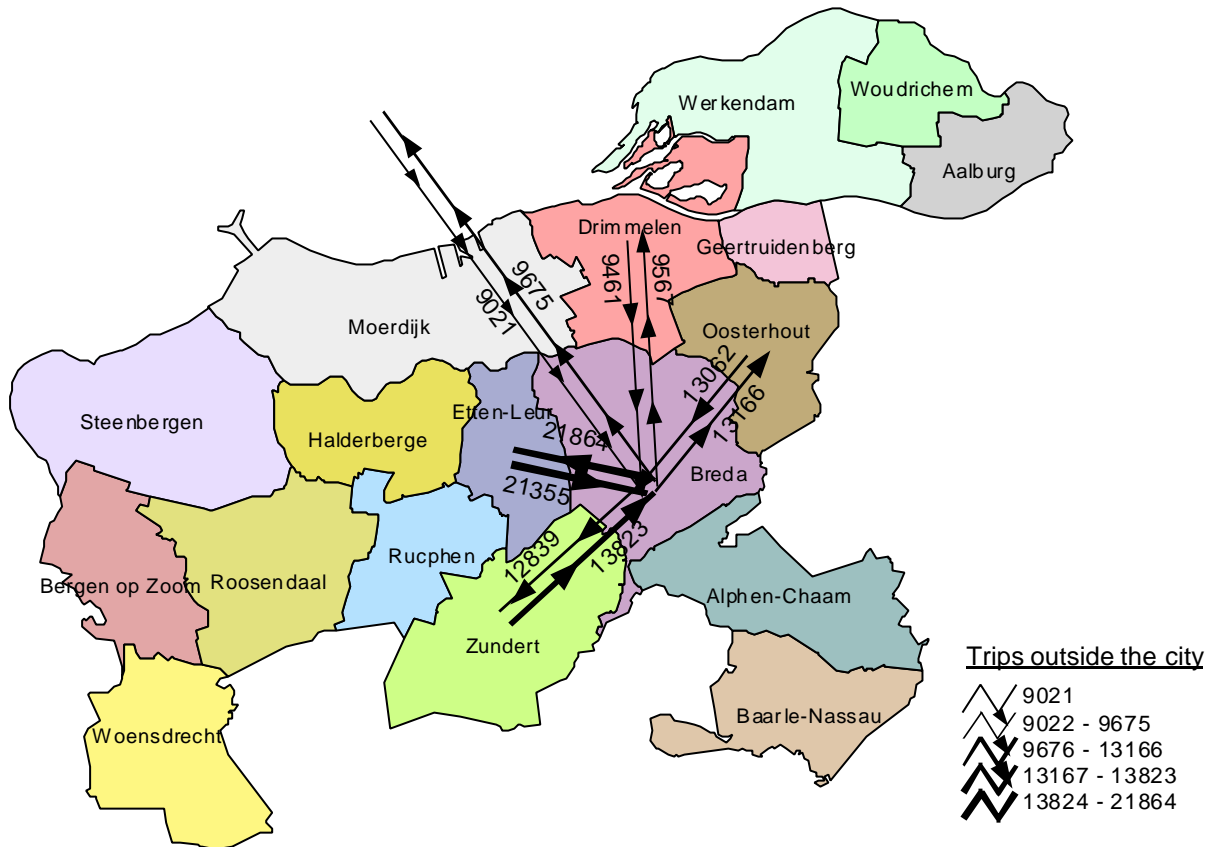


Figure 4: CVV usage with an origin or destination inside the municipality of Breda





**Figure 5:** O/D trips by CVV outside the municipality

The basic assumption for the West-Brabant Initiative is that an improved accessibility of the regular public transport will result in a lower demand for CVV and thus lower overall subsidies. This means that the CVV system can be kept for the people who really need personal help and door to door transportation. At the same time, a numerous part of the impaired people can use the regular, better accessible, public transport.

### 3. The West-Brabant Initiative

The main aim of the initiative is to improve the overall accessibility of the regular public transport system in the area. Between 2000 and 2004, not all the national subsidies for CVV were used for the operation of the system in West-Brabant. Together, the eighteen participants reserved more than €7.0 million. In a covenant it is agreed to invest this budget in improving the accessibility of the regular public transport. Improvement of accessibility means that the participants implement measures that result in:

1. improved physical accessibility, among which vicinity of public transport, accessibility of bus-stops, accessibility of buses.

2. improved mental accessibility, which means an improvement of information-supply about the public transport system.

Vicinity of public transport means that in principal there is a bus stop within 800 meters from the majority of homes and destinations of impaired and elderly people. This will result in projects for new bus stops, movement of bus stops, changed routes of bus-lines or even experiments with completely new bus-lines.

Accessibility of bus stops means that the bus stop itself is designed and built in an accessible way. A special guideline was produced for West-Brabant (BTB, 2004), to determine the specifications for accessible bus stops in various categories, mainly depending on the amount of waiting passengers. It has been agreed that in every settlement at least one fully accessible bus stop will be constructed, where both regular public transport and CVV can stop.

Accessibility of buses means purchase and usage of vehicles that enable impaired and the elderly people to get on and off the bus independently. Technology plays an important role for the improvement of buses:

- The bus ‘kneels’ to let people get in easier.
- Ringline for people with hearing problems.
- Facilities for visually impaired people.
- Automatic board to close the gap between the bus and the platform.

Mental accessibility is about improved information about buses. Again, technology is important:

- Information on your mobile phone (cell phone) about the next bus stop;
- Up-to-date information on the internet;
- Hand-held travel managers for pedestrians.

Finally, it has been agreed that an improved accessibility of public transport is not only beneficial for impaired people, but also increases the quality level of travelling by public transport for all passengers (e.g. passengers with shopping bags or prams for babies).

## **Projects in the initiative**

The initiative started in 2004 and has resulted in a number of projects that have been started. First of all, some study activities were undertaken, but in the framework for the initiative it was explicitly mentioned that study costs should be kept low. In parallel to the studies, actions for an improved vicinity (and availability) of public transport and an improved accessibility of bus stops were started.

### Studies

- Inventory of all bus stops in the region, all together there are approximately 1300 bus stops in West-Brabant. At the beginning it was unclear for a number of bus stops what their status was in terms of responsibility (which municipality) and level of service (sheltered, unsheltered, etc.)
- Prioritisation of bus stops to determine which ones should be tackled first to achieve the goal that is set by the national government (46% of the bus stops reach out to 68% of the target group). Two principals were followed: 1) all main bus lines (five in total) will be integrally adapted, and 2) every settlement in the region has 1 fully accessible bus stop. The number of waiting travellers and the vicinity of facilities for elderly and impaired people were used as two main indicators to determine the bus stops and the actions that were needed.
- The provincial authority co-ordinates the purchase of uniform materials, so that all bus stops meet the requirements for a corporate identity and materials can be purchased at lower cost levels. A special working group has determined the corporate identity.

### Vicinity actions

- The municipalities of Moerdijk and Etten-Leur have experimented with local bus services in addition to the regular public transport. Both experiments seem to have resulted in lower traffic volumes for CVV in the municipality and therefore contribute to a lower overall cost level, although that the exact interdependency between the experiment and the CVV trips cannot be determined. Another positive result is that both experiments have been taken up in the standard frequencies of the regular public transport.
- The city of Roosendaal has started a long-term experiment with lower tariffs for public transport during late night shopping and weekends (Euro ticket). This action is being evaluated at the time of writing this article.

### Improvement of bus stops

A number of municipalities have adapted some bus stops according to the guidelines that were set (BTB, 2004). Adaptation means amongst others: to raise the height of the platform to 18 cm to enable a flat entry in the bus, to make ramps between the platform and the connecting infrastructure, to make shelters, to make guided lines for visually impaired people, etc. At the moment more than 50 bus stops have been adapted, the majority has still to come.



*High platforms at bus stops*



*Guided lines for the visually impaired*

### Improvement of buses

The new contract between the provincial authority and the public transport operator requires a 100% accessible bus fleet in West-Brabant. An intelligent bus contributes for a very large part to a full accessible public transport.



*An exact match between bus and platform*



*An automatic board is a must in every bus*

### Mental accessibility

Finally, the Province of Noord-Brabant works on experiments to improve the travel information about the bus system.

## **4. Experiences and outlook**

The initiative started in 2004 and has an initial deadline of 2007. This means that in four years time, the complete budget should have been invested. As the preparation and synchronisation of the actions needed significant time and effort, projects will continue to be executed also after 2007. To use a comparison, the ship is now moving and it will not stop until it has reached its goal. The mechanism of co-operation is now starting to work more fluently, so more and more bus stops and surrounding projects will be tackled in the coming years. Some specific experiences and tips coming from the initiative so far are:

- It is desirable to have one co-ordinator for the public transport, instead of a lot of parties. The fragmented approach has led to big confusion and a situation where nobody is responsible for the system as a whole. At the beginning of the initiative, an external co-ordinator was contracted to start-up the whole procedure.
- The fact that someone was pulling and pushing the initiative has certainly contributed to form the team. This was needed, because realisation of a good accessible public transport depends on an exact co-operation of all parties involved. Accessible bus stops are of no use if there is no accessible bus or if there are no travellers due to a lack of information. It is sometimes said that accessibility of public transport is a binary process: either you have full accessibility (1) or none (0). There is nothing in between.
- Accessible bus stops (well designed and with good information about buses) make the public transport system being appreciated and an integral part of public space.
- A good inventory of all the facilities and the level of accessibility at bus stops is important for a good project start. It is not always clear for all actors who is responsible for which part of a bus stop.
- When improving the provision of information, keep it simple. It is tempting to introduce advanced computer systems, but in a rural area it is already difficult enough to introduce a simple, ease, clear and correct information to supply.

— Technology alone is by far not enough to achieve a full accessibility of public transport. Despite great technological improvements, there is still a long way to go to make the complete chain strong and reliable.

Finally, in theory it seems easy to adapt busses and their bus stops to the requirements that make them accessible for everyone. In practice, it is very complex. There are lots of challenges; like insufficient public space for a wheelchair or drivers that damage their busses at the accessible bus stops. A complete accessible public transport needs time. The West-Brabant Initiative is one of the important Dutch steps and close co-operation among all parties involved is a prerequisite for success. Co-operation is indeed top-class sport.

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