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Public Transport Tendering in the Netherlands

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Why look at franchising in the Netherlands?

Outside the three largest cities all local public transport in the Netherlands is now subject to franchising by local transport authorities. Indeed many areas are now on their second round of franchising. A wide variety of approaches have been taken to franchising – however all remain within the basic tenants of transport planning in the Netherlands. These include a strong commitment to integrated public transport networks and ticketing as part of a wider suite of policies that favour the bicycle and the integration of land use and transport planning.

As such in many ways the Netherlands has acted as a laboratory for different approaches to the franchising of integrated public transport networks – from which others can learn. The diversity of franchising environments – from deep rural to mega conurbations – also provides a series of useful parallels for local transport authorities from which to learn.

The context

The Netherlands has a population density similar to England, although a third of the population is concentrated in the *Randstad* where the challenges of traffic growth and congestion are particularly acute. Responsibility for local transport provision is devolved to the appropriate tier of regional and local government. Funding is centrally distributed rather than locally raised but local transport authorities have significant freedoms to determine how that funding is spent in line with local priorities.

Key features of local transport in the Netherlands are:

- A very strong commitment to integrated public transport networks and inter-connecting hierarchies of public transport

services supported by integrated fares

- High levels of bicycle use and provision and a very strong cycling culture
- A land use planning system that promotes linkages with transport planning
- Free public transport for Dutch students
- Outside the largest cities extensive experience of the franchising of local public transport networks by local transport authorities
- Experimentation in the pooling of social, health care, education and public transport budgets and services
- A number of franchises have included local rail and bus networks in the same contract

Approaches to regional franchising

Local transport authorities have adopted and implemented a wide range of formats for franchising ranging from conventional highly specified franchises, to franchises which set objectives (rather than specify service details) and which utilise sophisticated incentive regimes to encourage operator innovation to reward hierarchies of objectives (such as patronage growth).

These different formats bring with them their own challenges and tensions.

This includes:

- Managing the transition to radically new service patterns that franchises can introduce



Passengers alighting at Nijmegen train and bus station.

- Dealing with the implications of external shocks for the economics of franchises (such as economic downturns or industrial unrest)
- Finding the right balance between encouraging private sector innovation (rather than passive contract compliance), protecting minimum standards (without ossifying transport networks) and realising the public sector's legitimate social, environmental, and economic objectives for its local public transport network (but in a way that provides good value)
- Ensuring adequate levels of competition for franchises
- Trade-offs between the sophistication of incentive regimes and the ability of the market to respond to that complexity
- The lack of uniformity of approach to franchising can also be a challenge for bidders and for evaluating the success and failures of so many different variations on the franchising theme
- Ensuring that lessons are learnt by local transport authorities from the diversity of approaches being taken (this is now being formalised through a nationwide project)

Over time there seems to be a trend towards greater specification of service detail in franchises by local transport authorities. This is in response to perceived risks and uncertainties involved in franchises which are based more on objectives than detailed specification of services. However, new approaches are still being developed – including greater co-development of franchises between operators and franchising authority.

The outcomes and benefits for passengers and local transport authorities

The experience of franchising of local transport services in the Netherlands is characterised by:

- Significant investment in vehicles leading to a modern bus fleet meeting high emission and accessibility standards
- Significant enhancements in service levels and the overall local public transport offer
- Though there are tensions between the local and national, and operators and authorities, integration remains a key feature
- Patronage data is not sufficiently robust to allow for a sophisticated analysis of impacts but the data suggests that local bus patronage remains stable
- Substantial improvements in labour productivity
- Falling costs of provision
- Rising levels of customer satisfaction
- High degree of fares integration but greater specification of local fares offers and all within the overall context of fares rising above inflation
- Formal role for passenger groups in franchise development and changes

There has also been significant innovation and diversity in approaches to franchising – including franchising of whole networks (rail and bus) and integration of social, disabled and educational transport with mainstream public transport. Combining local bus and rail networks in a single franchise has resulted in efficiencies and a greater focus on integration. Pooling of social, disabled, education and mainstream public transport can offer the public a comprehensive door-to-door service which is integrated with the wider mainstream public transport network, whilst at the same time bringing about efficiencies and providing the right vehicles for both the general and specialist markets served. At the same time there are tensions between the needs of different groups using such services, as well as cost issues, which is one reason why this option has not been universally adopted.





The new Sprinter trains from the NS are gradually replacing rolling stock from the 1960's.

The Netherlands

- *Significant challenges on traffic growth and congestion particularly in the Randstad*
- *Responsibility for local public transport networks devolved to locally appropriate tier of government. Funding for transport centrally distributed but with major freedoms for local transport authorities to determine their own transport priorities*
- *High levels of bicycle use and provision – and very strong cycling culture*
- *Land use planning system that seeks to promote linkages with transport planning*
- *Free public transport for Dutch students*
- *Significant experimentation at a local level of the pooling of social, healthcare, education and public transport budgets and services*

The western half of the Netherlands is characterised by a poly-centric urban structure with Amsterdam, Rotterdam, The Hague and Utrecht forming the main conurbation known as *Randstad* (or edge city). This area has a population of approximately 7 million inhabitants which is almost half of the 16.6 million inhabitants of the country, and has an average population density of about 1.000 inh./km². The Netherlands as a whole has an average population density similar to that of England.

	Netherlands	England	United Kingdom
<i>Inhabitants (in millions)</i>	16.5	51	61
<i>Size (km²)</i>	41,528	130,395	243,610
<i>Density (inh./km²)</i>	397	391	250

Source: Office for National Statistics (UK), CBS (NL)

There are three levels of government in the Netherlands:

- National government: State
- Regional government: Provinces, City Regions
- Local government: Municipalities

The Netherlands is divided into twelve provinces, which are responsible for land-use planning, public transport, infrastructure (roads, bus stops), health policy and recreation, within policy boundaries prescribed by national government. The provinces also oversee the policy and finances of municipalities and water boards (*waterschappen*, one of the oldest types of local government in the world). There are some provincial taxes but national government covers most of the budgetary needs of the provinces through transfers from national funds.

The 458 municipalities have various responsibilities such as education, spatial planning, and local infrastructure (roads, bus stops), this within policy limits prescribed by national and provincial governments. The municipalities have some local taxes but again national government provides most of their funding.

The City Regions (*stadsregio*) are compulsory municipal co-operations in the urban areas of Amsterdam, Rotterdam, The Hague, Utrecht, Rotterdam, Eindhoven, Arnhem/Nijmegen and Hengelo/Enschede. These public bodies are responsible for several policy areas that would otherwise be covered by the province, such as land-use planning, public transport, infrastructure funding (though not maintenance), but also economic affairs,

and housing and youth welfare. Their budget comes mostly from national government with a smaller proportion coming from the municipalities.

Public transport authorities and funding

Regular public transport

As a result of this allocation of responsibilities between the various levels of government, eighteen regional authorities are responsible for public transport in the Netherlands, eleven of them are provinces and are seven City Regions. Their responsibilities include both bus services and some regional train services operated on branch lines of the national train network. The State is, as 19th public transport authority, responsible for national rail services, including both intercity services and local train services operating alongside those services.

Local authorities have only very limited taxation powers in the Netherlands. Funding for public transport services comes directly from the ministry of transport and is allocated to the regional transport authorities according to specific apportionment criteria.

Since 2005 funding for public transport services became part of a wide transport-dedicated financial transfer from central government to the transport authorities (*Brede Doeluitkering*, BDU). Since then, local authorities have the freedom to allocate funding as they see fit between public transport and infrastructure (roads, public transport infrastructure, bike lanes, etc).

On rare occasions local government (or even chambers of commerce, businesses, etc.) provide funding for specific local public transport services such as additional peak hour operation of shuttle services between a railway station and a peripheral industrial area. These services and their funding represent a minute part of overall funding for transport.

School transport

Most Dutch higher education students benefit from free public transport. This system was introduced in 1991 as a commercial contract between the Ministry of Education and the transport operators, replacing former travel allowances to the students. This contract amounts to about € 300 million in 2009.

	Authority	Type	Modal responsibilities
1	Groningen / Drenthe	Cooperation of two provinces	Bus, train
2	Fryslân	Province	Bus, train
3	Overijssel	Province	Bus, train
4	Twente	City region	Bus, train
5	Gelderland	Province	Bus, train
6	Arnhem - Nijmegen	City region	Bus, train
7	Flevoland	Province	Bus
8	Utrecht	Province	Bus
9	Utrecht (city)	City region	Bus and tram
10	North Holland	Province	Bus
11	Amsterdam	City region	Bus, tram and metro
12	South Holland	Province	Bus (and regional tram in 2015)
13	Haaglanden	City region	Bus, tram
14	Rotterdam	City region	Bus, tram and metro
15	Zeeland	Province	Bus
16	Brabant	Province	Bus
17	Eindhoven	City Region	Bus
18	Limburg	Province	Bus, train

The free travel scheme does not include high school students; however, all persons under the age of 18 enjoy reductions on tickets and passes.

Only specific groups of pupils qualify for dedicated schools transport in the Netherlands. These are only provided to pupils who cannot make use of schools in their own neighbourhood (up to 6 km) for religious reasons or because they need special (health) care, and also for those who live in areas where there are no schools in the neighbourhood. These bus services are usually not integrated with regular public transport and the funding source is also separate.

Note that some school transport provision falls within mainstream public transport funding. This includes conventional public transport with special marketing for pupils / students (i.e. where schedules are aligned with school hours, or with specific brand names, etc) and regular routes with additional bus trips for pupils / students at peak hours. A number of initiatives have been introduced to improve provision, combine services or reduce costs. An example of this is the *Collegeliner* developed by Arriva in the province of Fryslân to reduce the overcrowding of some train and bus services at peak hours. Students avoid having to transfer and this also reduces the peak loading on the regular services. Sometimes special contractual arrangements are also made between the public transport authority and the operator where the usage of the school lines is reevaluated yearly by the operator. For example, for some routes in the Province of Gelderland if the cost-coverage drops under 50%, the concession holder has to work with high schools along this route to create an additional marketing plan to raise ridership but the line can be discontinued if this does not lead to sufficient

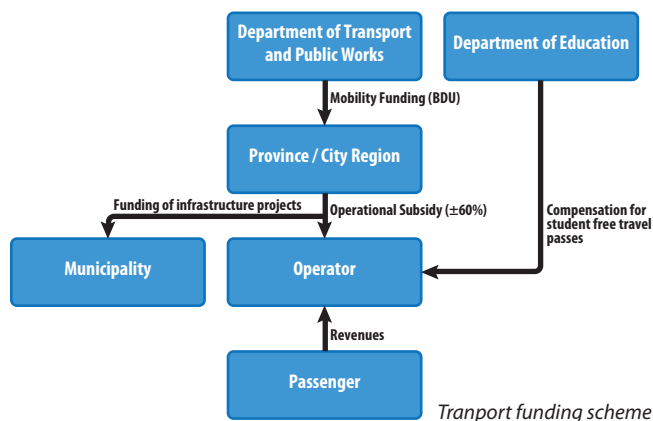


improvements. In some cases the authority exempts buses serving schools from meeting the general fleet age requirements and environmental standards.

Special transport services

The Social Support Act (*Wet Maatschappelijke Ondersteuning*, WMO) aims to allow the elderly and the disabled to live independently at home and take part in society for as long as possible. The Dutch government allocates general funds to municipalities out of which they also provide for the needs of their inhabitants fulfilling the WMO-criteria. The Ministry of Health, Welfare and Sports provides for an equivalent national mobility system.

The municipalities provide equipment or services (such as





A regiotaxi in Limburg

domestic support, special toilets, wheel chairs etc.) but also dedicated door-to-door transport as part of their WMO-services. People falling in specific categories can make use of these services. These WMO transport facilities are usually taxi or minibus services that have to be ordered one hour ahead.

Sometimes these services may also be used by regular public transport users. In such cases, the public transport authority allocates part of the public transport budget to the municipalities responsible for those WMO-services as compensation for the transportation of these passengers (for instance the passenger pays €1,75 per zone, which is above the usual public transport fare, and the transport authority adds €3,25 in transfer to the municipality to cover the costs).

The solutions adopted by the various transport authorities vary quite a bit, all according to local circumstances and priorities. For example, the Province of South Holland abolished some regular public transport services in favour of a larger integration

with WMO transport, resulting in a balance of about 50% regular public transport users in its WMO services.

Another example is the rural province of Fryslân where regular bus services to the smallest villages were replaced with demand-responsive services. The operator has subcontracted these services to local taxi companies which also operate the local WMO-services, resulting in a higher efficiency (same vehicles can be used for both services).

On the contrary, the rural Province of Zeeland investigated the possibilities to further integrate various transport services (regular, demand-responsive, people with disabilities, pupils) but came to the conclusion that the difference of needs between the potential users was too large to allow for an effective integration in the interest of the various target groups due to the simultaneity of the transport needs even if savings could be reached in the overhead costs of the booking systems.

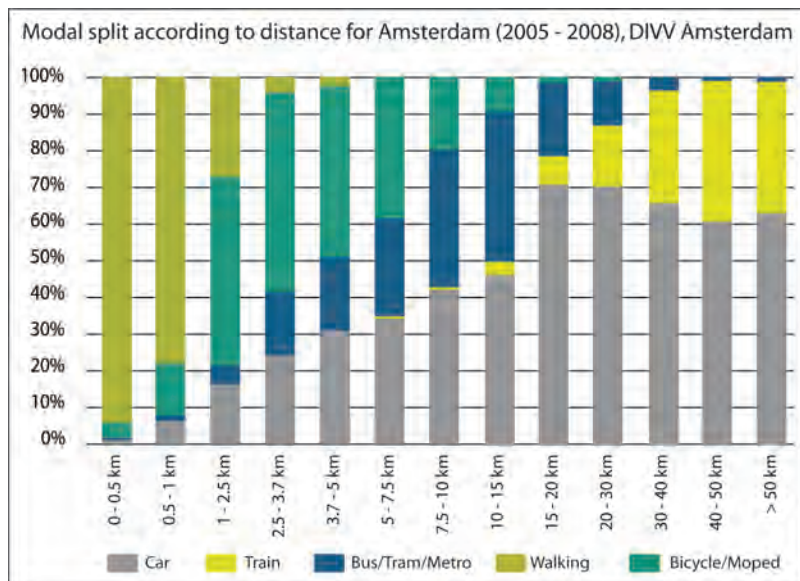
Demand responsive regular public transport services open as WMO transport services are usually branded as *RegioTaxi*, a national brand developed to clarify the supply of these various regional demand responsive services. In general, though, the usage of WMO transport services by its target groups receives priority and most authorities discourage its usage as a means of public transport for the general public due to its higher costs compared to regular services. The general balance between regular WMO users and other passengers using the WMO services is therefore usually 85% - 15%.

Bicycles

The Dutch transport scene is of course characterised by the major role played by the bicycle, which is the primary mode for

70% of Dutch people cycle on a regular basis, either for recreative or commuting purposes, making cycling a main competitor to local public transport.





Source: KiM (2009), Mobiliteitsbalans

distances up to 5 kilometres. A dense bike lane network is usually available within cities as well as between cities and villages. The bike is also not regarded as a poor man's transportation mode and is used by all levels of society. A challenge is the lower bicycle usage amongst immigrants.

Cycling is a common form of transport in the Netherlands for short-distance trips (shopping, school trips, commuting and recreation) and it represents a substantial share of short distance travel in urban areas, a market that would be covered to a significant degree by public transport in other countries.



Houten is a new town in the vicinity of Utrecht which now has 43,000 inhabitants. The railway station and the shopping centre form the core of the city, around which a large office and facility area (sports, medical, etc) are situated. The residential areas are situated around the centre with a decreasing housing density. From the centre a star-shaped bicycle and pedestrian network branches out into direct routes to the residential areas. Everywhere can still, however, be reached by car, though car traffic must use the ring road to get from one residential neighbourhood to another, or to the centre. Thus in many instances walking or cycling is more attractive and quicker. The result in Houten is that there is relatively more walking and particularly more cycling, than in comparable centres. [Cycling in the Netherlands 2009, Fietsberaad]

The relationship between bike and public transport is ambivalent as they are main competitors within cities for short distance trips. On the other hand bikes can function as a feeder for the railways and for buses in rural areas. That role is stimulated by creating large parking lots for thousands of bikes near railway stations or near bus stops at the edge of a village.

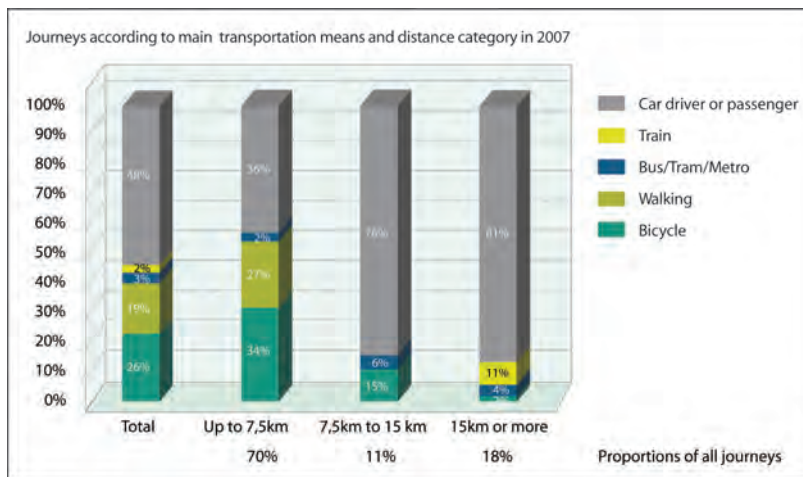
An interesting development is the substantial growth of bicycle hire in recent years, mainly through OV-fiets, a subsidiary of the Dutch Railways. Through this scheme it is now possible to hire a bike or electric scooter at a station and other locations in major cities. The system is relatively cheap costing €2,85 for 20 hours plus a yearly €9,50 subscription fee and very easy to use: subscribers use a personal pass and in less than a minute they are ready to cycle.

Mobility policies

The road network of the Netherlands is very dense and most major cities are connected to the motorway system. This system is very congested during peak hours – not only in the Randstad area. The government has tried to address this issue for many years including through proposals for a kilometre-based road charging scheme. However this proposal has been postponed and possibly cancelled, all depending on the policies of the next government. However major cities, such as Amsterdam and Utrecht, are still considering the introduction of regional variants of this system.

It is useful to give a brief historical perspective on the Dutch car mobility policy to understand the shifts that have taken place. Around the turn of the century the Netherlands saw a major shift in mobility policies on both the national and regional level. In the 90s the mobility policy of the Department of Transport – as formulated in 1988 White Paper – aimed at creating a modal shift from car usage towards public transport and bicycle usage. This modal shift was considered desirable from both economic (reducing congestion) as well as environmental perspectives. However, this modal shift was not realised: despite efforts to the contrary, car usage increased by 45 % between 1986 and 2001. This also meant that both the economic and environmental goals were not met: congestion kept increasing and the desired CO₂ reduction was not realized (CO₂ emissions from traffic increased by 40 % between 1986 and 1997) [Source: Social Economic Council (2001), Advice about the National Traffic and Transport Plan].

These disappointing results led to a shift in policies. The 1988 plan was, with hindsight, considered too ambitious; it was felt that policy makers had had too much faith in the extent in which society could be influenced by such policies. This resulted in a new White Paper on mobility: the National Traffic and Transport Plan 2001 – 2020 (NVVP), adopted in 2000. The NVVP follows a more pragmatic strategy to reduce congestion and to promote sustainability and safety. The policy no longer aims to reduce car use, but instead seeks to reduce the negative impacts.



Source: AVV (2007), *Mobiliteitsonderzoek (Mobility Study) Nederland*

Mobility choices of citizens and the private sector are to be respected, but they may now be presented with the bill for any costs that arise from negative effects of their mobility choices. This explains why road pricing is considered to be the most desirable instrument in the new policy. However, road pricing has since been the topic of fierce political debate, and so far no concrete decision has been taken on introducing it.

Other policy instruments include making the best use of existing road and rail capacity – and only if there is no realistic alternative – building new roads and railways.

The Dutch railway service is arguably one of the best in Europe, providing high frequencies on much of the network with at least two trains per hour on all routes and at least four intercity services and four local services in the *Randstad* area. Plans have recently been developed to introduce 6 intercity services and 4 or 6 local services on main corridors and a heavy rail investment programme has been announced to facilitate this growth. Not surprisingly: the modal share of railways is relatively high in the Netherlands: 9.7 % of all land passenger kilometres are made by train, compared to 6.8 % in the UK or 7.3 % in the entire EU [Source: Eurostat (2008)].

Urban planning in the Netherlands is generally considered as the best means of reducing the need for travelling by car. The Netherlands has a rather strict urban planning policy, aiming at relatively compact suburbs with good provisions for bicycles and urban transport. Large suburban shopping malls hardly exist in the Netherlands except for small neighbourhood-oriented super-markets.

The 90s saw the introduction of large, so-called 'Vinex' suburbs next to many large cities, named after the title of White paper published by the ministry responsible for land-use planning. These suburbs were designed in such a way that bus and bicycles traffic has the most direct connections to the city centre, whereas car

traffic often has a longer route. In addition, some of the larger Vinex-areas also have a station on the national rail network and / or tram and light rail connections. However, this policy alone could not completely stop urban sprawl and a high car usage in the new suburbs. Even though many new residential areas are situated as close to the city centre as possible, distances to the city centre are still often rather long for bicycles usage. In addition, these new urban areas suffer from the fact that many new traffic streams are not directed towards the city centre anymore but towards surrounding urban areas. The proximity of the new suburbs to motorways and the increasingly sprawling office areas on the outer edges to towns contribute to this effect. Many suburban and rural areas are therefore still conducive to a high private car modal share due to rather low housing densities in these areas, long distances to public transport stops, and an insufficient realisation of the aim of providing public transport services from day one to the first residents of new urban areas. Now that the Vinex-areas are almost finished, policies regarding spatial planning have shifted more towards intra-city development, rather than the creation of new suburbs. At the same time, responsibilities regarding urban planning have shifted from national and provincial level to the municipalities. The effects of this shift remain to be seen.

A relatively new element in the national mobility policy is mobility management, where the national government works together with regional authorities as well as the private sector to make mobility – especially commuting – more flexible, in order to decrease the negative effects of congestion. A Taskforce Mobility Management has been in place since 2008, aiming for a reduction of 5 % of car kilometres in rush hours. One of the most important measures which is introduced in various companies is a 'mobility budget' for employees, from which all work-related journeys can be paid, regardless of modality. This means that for each individual journey employees can choose how they want to travel, instead of being bound to either a lease car or public transport pass. Other measures include flexible working hours and, stimulating working from home.



The tram line 25/26 connects Vinex-area 'IJburg' with the centre of Amsterdam.



HTM is one of the three remaining publicly-owned passenger transport operators in the Netherlands.

Public transport services in the Netherlands

- *Highly integrated public transport network with hierarchies of interconnecting services*
- *Nationwide 'strippenkaart' zonal fares system being converted to single smartcard system giving passengers access to entire public transport network with one card*
- *One number, one website provides national public transport information service for passengers*
- *Modern, low emission bus fleet*
- *Franchising of regional local bus and rail services well established*

Public Transport Operators

The market for public transport that is subject to competitive tendering is mainly in the hands of four large operators:

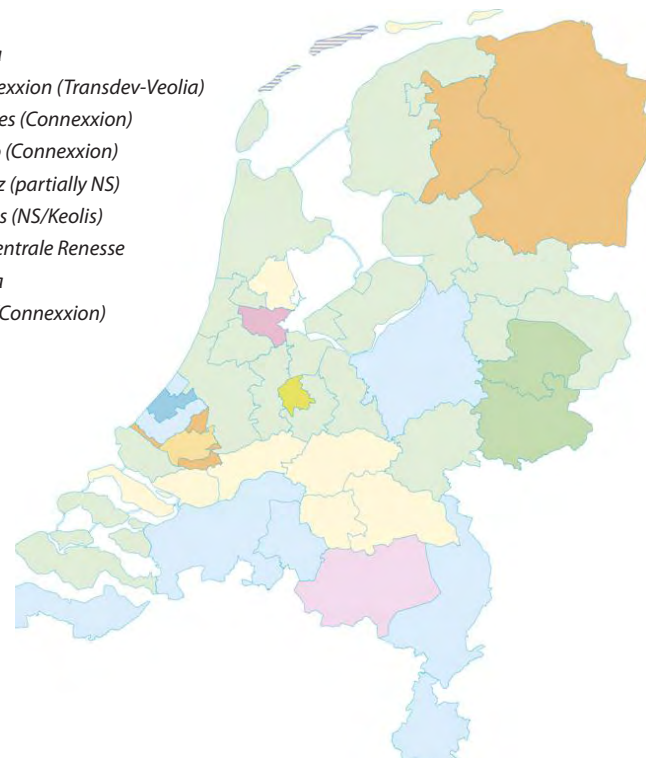
- Connexxion (owned by Transdev) evolved out of VSN, the former state-owned holding company which owned most regional bus and minor urban operations. VSN was forced to sell some its operations in order to facilitate the introduction of competitive tendering in the Netherlands. The remaining part became Connexxion, not to be confused with the former French public transport operator Connex, now Veolia. In October 2007 Connexxion was sold to the French company Transdev, which has recently merged with Veolia Transport, another French company. Connexxion also owns the former VSN-company Hermes and the former municipal bus companies Novio (in Nijmegen, now operating under the name 'Breg') and GVU (in Utrecht).
- Veolia started operating in the Netherlands when it took over BBA, the regional VSN bus company in the southern province of North-Brabant. In December 2006 BBA lost its 'home territory' of Brabant in a competitive tendering process. However, in the same year it won the tender of the entire neighbouring province of Limburg, making this the largest area that Veolia operates. The French holding company of Veolia Transport subsequently recently merged with Transdev.
- Arriva entered the Dutch market when it took over two former VSN bus companies in the North of the Netherlands. Its territory extended when it won several concessions in various parts of the Netherlands, including the concession for all regional rail lines in the North of the country. In recent years, however, Arriva's market share has been decreasing after it lost some of its largest franchises. Recently Arriva was taken over by the German national railway company DB.
- Qbuzz is a new Dutch bus company, founded and partly owned by two former directors of Connexxion. The Dutch national railways (NS) is the other main shareholder (owning 49%). Qbuzz won its first concessions in 2008 in the northern province of Fryslân, and another one in the Rotterdam area. In 2009, it won one of the largest Dutch concessions in the northern provinces of Groningen and Drenthe.

The international merger of Veolia Transport and Transdev, together with the acquisition of Arriva by DB will obviously have its consequence on the shape of this market in the near future.

There are several smaller operators alongside the main four companies:

- Syntus is owned by the Dutch national railways (NS) and the French company Keolis (part of the French national railway SNCF group). It started prior to the Passenger Transport Act 2000 as a joint-venture between NS and a regional bus operator of the VSN-groep (Oostnet). Syntus resulted from an earlier regional project that aimed at better integrating the operations of buses and trains in this area. Recently, Syntus lost its home territory when the Achterhoek area was tendered for the first time; much to the dismay of many political and passenger organizations who saw Syntus as 'their' regional company. Syntus will continue to operate, however, as it recently won two concessions in the neighbouring Veluwe and Overijssel area.
- RegioNS is a small company fully owned by the NS. It was created in order to participate in regional railway lines tenders. It currently operates one short railway line (Zutphen – Apeldoorn), but has since lost the last tender of this line and will probably cease to exist in the near future.
- TCR is a small private company whose main business is running taxis and tourist transport in the beach holiday resort area

- Arriva
- Connexxion (Transdev-Veolia)
- Hermes (Connexxion)
- Novio (Connexxion)
- Qbuzz (partially NS)
- Syntus (NS/Keolis)
- Taxicentrale Renesse
- Veolia
- GVU (Connexxion)
- GVB
- HTM
- RET



of Renesse (South Holland). It has won only one small public transport concession on the small island of Vlieland in the North of the Netherlands, these operations are carried out in cooperation with Arriva. Arriva and Veolia have also sub-contracted some of their services to TCR, both coaches operating longer-distance routes and some minibuss operations.

Operator	Owned by	Modalities
Arriva	Arriva-Deutsche Bahn (D)	• Bus (multiple areas) • Regional rail (multiple lines) • Ferry (Rotterdam area; co-operation with Doeksen)
Connexxion (incl. Hermes / Novio / GVV)	Transdev-Veolia (F)	• Bus (several areas) • Regional rail (Amersfoort – Ede) • Light rail (Utrecht) • Ferry (Amsterdam – Velsen)
Veolia Transport	Veolia Environnement – Transdev (F)	• Bus (multiple areas) • Regional rail (several lines)
Qbuzz	49% NS (NL), 51% Private owners	• Bus (multiple areas)
Syntus	NS (NL), Keolis (F)	• Bus (Achterhoek area) • Regional rail (Achterhoek area)
Gemeente-vervoerbedrijf, Amsterdam (GVB)	Municipality of Amsterdam	• Bus (Amsterdam) • Tram (Amsterdam) • Metro (Amsterdam)
Rotterdamse Elektrische Tram (RET)	City region of Rotterdam	• Bus (Rotterdam) • Tram (Rotterdam) • Metro (Rotterdam) • Light rail (RandstadRail: Rotterdam – The Hague)
HTM Personen-vervoer (HTM)	City of The Hague	• Bus (The Hague) • Tram (The Hague) • Light rail (RandstadRail Zoetermeer – The Hague)
TCR	Taxi Centrale Renesse (NL)	• Bus (Vlieland Island) and some subcontracted operations to Arriva and Veolia
Nederlandse Spoorwegen (NS)	PLC, 100% shares owned by government	• National rail

The three largest cities have publicly-owned operators that are still responsible for all inner-city bus, tram and metro services in these cities as competitive tendering has not been implemented in these main urban areas:

Public transport on the national rail network is operated by the

Nederlandse Spoorwegen (Dutch Railways) under a concession directly awarded by the Ministry of Transport, lasting until 2015. NS is a public limited liability company with all of its shares fully owned by the Dutch government. NS operates the national intercity network and the local trains operating on that network. Regional rail is subject to competitive tendering by regional authorities. Often bus and rail are combined into one multimodal concession.

Typical supply level

Traditionally much emphasis was placed on network coverage in the Netherlands. Before the introduction of competition, bus lines in the Netherlands were generally slow. Typical service levels were every 20 or 30 minutes in (sub)urban areas and every 30 to 60 minutes in rural areas.

Together with the introduction of the Transport Act 2000, cuts in national funding for public transport were also introduced. This forced authorities to make choices which resulted in more focus on fast and frequent urban connections and less in rural areas where infrequent bus lines were further cut back in frequency, replaced with neighbourhood buses (see text box) or cancelled altogether.

At the same time, the first round of tendering resulted in an increased value for money for the taxpayer: the contract price per bus hour decreased. This efficiency increase often allowed an increase in frequencies in urban areas; in many cases from every 30 minutes to every 15 minutes.

Currently typical service levels are:

- Urban: every 10 - 15 min
- Suburban: every 15 - 30 min
- Rural: every 30 - 60 min

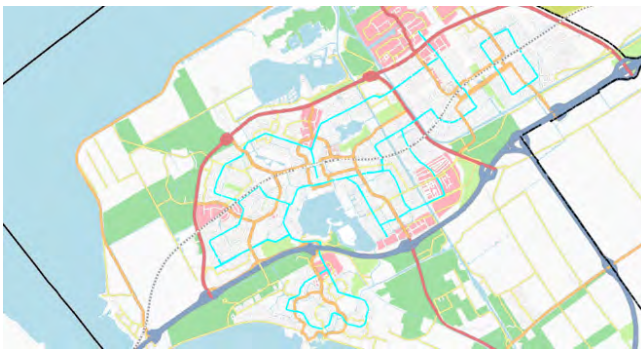
Integration of services

One of the traditional key features of Dutch public transport is the integration of services. Over the decades, the public transport system began operating more and more as one system based on a clear hierarchy of regular interval services: with intercity, semi-fast and stopping rail services complemented by express buses (where there is no rail service), and local bus services. Within the bus network there can also be hierarchies of fast (peak hour), local and community and demand responsive services. Much effort is put into ensuring good connections, both within these two systems as well as between them. On most journeys where no direct connection is possible, there is often a convenient connection with a short transfer between trains or between train and bus. Although bus-bus connections are less common, several rural areas are characterised by stand-alone interchange points which do not serve any local demand but are provided purely to facilitate interchange between inter-connecting rural services. These interchange points predate the introduction of competitive tendering, but operators continue to provide them in the tendered setting in various rural parts of the country. Some of these interchanges are provided in the evening

hours such as to allow bundling passengers from several smaller rural routes into one bus continuing to the next regional centre.

In fact, when setting up a timetable, bus operators often start with building a 'transfer scheme' in which the most convenient ways to connect to the railways can be found. Public authorities also place great emphasis on connections when tendering concessions. However, although a high degree of connectivity can open up many journey opportunities for passengers because transfer times are short, a small delay on the first part of the journey may result in missing the next bus or train. To a degree the franchising of regional public transport has introduced further tensions on connections as a side result of punctuality performance incentives in concessions: operators do not want to be fined for running late, so there is less incentive for them to maintain and hold connections.

Almere: Substantial growth with Maxx high-frequent services on dedicated tracks



Almere. Bus infrastructure in turquoise.

Although Almere is a young city – it was founded in 1976 in an area reclaimed from the sea – it has grown to become the seventh largest city of the Netherlands, sprawling across a vast area. Many of its inhabitants work either in Amsterdam or Utrecht. Right from its conception, bus transport played a major role in the planning of the city: there is a large network of dedicated bus lanes, often in its own right-of-way, connecting neighbourhoods with the city centre via routes not open to cars. When the bus network in the city was competitively tendered for the first time, the winning operator (Connexxion) introduced a new brand for its new highly frequent bus services: 'Maxx'. Frequencies increased from every 10 minutes to every 7.5 minutes. High-capacity low floor vehicles were introduced and – in order to reduce dwell times – passengers were allowed to board through all doors.

The introduction of Maxx has been highly successful: in the first year alone, ridership numbers went up by 40 %. In 2004, Maxx was awarded the 'Passengers' Award' from passenger advocate organization ROVER. The brand 'Maxx' has since also been applied to other urban services operated by Connexxion, albeit often at lower frequencies and speeds.

Long distance buses / coaches hardly exist in the Netherlands as trains provide fast and frequent long distance services all over the country. In those few cases where there is no rail service, express buses fill gaps in the network. In the 90s, the national bus holding company VSN introduced upon its own entrepreneurial initiative a national branding scheme for these long distance buses, called the *Interliner*. These services had higher vehicle and bus stop specifications (such as higher levels of passenger comfort on vehicles and real time information and bike park-

ing at bus stops. These services were well integrated with train times and railway tickets could also be used on these services. The Passenger Transport Act 2000 abolished the possibility for autonomous market initiative that had generated this *Interliner* concept and replaced it with regional tendering. With this the focus of transport authorities shifted on how express bus services fit within regional public transport networks and brands, the national brand and the corresponding ticket integration with the railways disappeared.

Vehicles and branding

The introduction of franchising has led to a large-scale renewal of bus fleets. In many concession areas a brand new fleet is introduced after each tendering round (every 6 – 8 years). This is partly the result of (national) laws requiring accessibility for the disabled and other objectives set by the authority regarding the environment and accessibility. The downside of specifying new vehicles is that buses from previous concessions were scrapped at a relatively young age. Because of this, some authorities now allow second-hand buses to operate in their concession.

At the moment, the typical bus in regional public transport is a Mercedes, VDL, Van Hool or MAN 12-meter low-floor vehicle. On busy routes, single or double articulated ('bendy') buses can also be found. Regarding passenger comfort, most buses have simple seating, comparable to what is usual in the urban areas, except for a few longer-distance routes where coach-style seats are common. Environmental standards are usually Euro-4, Euro-5 or EEV; in some concessions the authority demands the use of CNG-buses.

Neighbourhood buses: Ad-hoc transportation in rural areas



In rural areas there is often insufficient demand for regular public transport on lightly-travelled lines. Instead, local groups consisting of volunteers ply the routes in small 'buurtbussen' (neighbourhood buses). Often, they have their own tariff system, yet the local public transport operator facilitates the maintenance of the vehicles as part of the wider franchise. With no set schedule, vehicles can carry eight passengers and are usually not suitable for wheelchair users.

Some buurtbus projects are cancelled after a few years due to insufficient demand; while others are so successful that extra buses have to be put into service and in some cases a regular bus is put back on the route.

Bus drivers from regular public transport services often see the buurtbussen as unfair competition as volunteers drive the buses; yet these buses also generate maintenance work for their colleagues.



Bus branding in the Netherlands varies by region, with a growing influence by the regional transport authority. The “Breng” brand developed by the Arnhem-Nijmegen transport authority in cooperation with Connexxion, and the standard Arriva livery

Number of buses and their European emission standards:

	Competitive tendering	Direct award (large cities)	Total
Euro 0-2	7 (0 %)	171 (27 %)	178 (3.5 %)
Euro 3	1,412 (32 %)	43 (7 %)	1,455 (29 %)
Euro 4	280 (7 %)	51 (8 %)	331 (6.5 %)
Euro 5 or EEV	2,640 (60 %)	365 (58 %)	3,005 (60 %)
Hybrid/Electric	64 (1 %)	3 (0 %)	67 (1 %)
Total	4,403 (100 %)	633 (100 %)	5036 (100 %)

Source: based on data from KpVV (2010) ‘Milieukwaliteit OV bussen’

In most areas bus operators carry their own brands, using the name, logo and livery of the company itself. However, increasingly authorities specify a regional brand for all public transport in the area. Usually this is a uniform brand for the entire area without differentiation in lines or product types. In some cases the brand is developed by the authority and in others by the operator.

Ticket integration and public transport fares

Nationwide ticketing system

In 1980 the Netherlands saw the introduction of a national fare and ticket system for urban and regional public transport. With the exception of most train journeys, this covers virtually the entire public transport network, regardless of public transport operator. By using the *strippenkaart* (zoned multi-ride ticket) or the *sterabonnement* (zoned seasonal passes), passengers have the benefit that they can travel throughout the country using the same ticketing and fare system. Fares are based on the number of geographical zones ‘crossed’ (about 4-5 km in diameter). Ticket revenues are apportioned to authorities and/or operators on the basis of a complex nationwide passenger enquiry. Authorities are allowed to introduce regional tickets (themselves or through their operator) alongside the nationwide *strippenkaart* system.

The *strippenkaart* provided advantages for both passenger and operator: passengers can travel anywhere in the country with the same ticket; for operators it meant shorter dwelling times at bus stops and less handling of cash in the buses. However, there are also disadvantages: the system is rather complex from a passenger’s point of view (e.g. one has to know how many zones you travel through to stamp the correct number of strips). For the

operator: the distribution of revenues between operators is slow, complex and imprecise (because it is based on yearly passenger surveys). Some operators have complained that they received less money from the revenue allocation system (WROOV) than they should have. For this reason, in recent years these regional tickets have become increasingly popular amongst authorities and operators as they guarantee a direct revenue stream.

The growing usage of competitive tendering and the associated contractual revenue risk for the operators have led to a growing call for a more precise revenue allocation method. This is now being realised with the gradual introduction of the national public transport smartcard (*OV Chipkaart*), which will replace the *strippenkaart* and the corresponding zone system, after the full national implementation of the smartcard. The *OV-chipkaart* can now be used in most concession areas and should fully replace the *strippenkaart* by 2011.

Strippenkaart

The passenger must stamp the number of zones travelled plus one strip for the base fare (one zone = two strips, two zones = three strips, and so forth). *Strippenkaarten* can be purchased at tobacconists, supermarkets, tourist offices and public transport company shops or on-board.

The table below lists the types of *strippenkaarten* and their prices: One can only purchase the 2, 3 and 8 strip cards on board buses and some trams. As one can see below, there is quite a penalty levied against on-board purchases.

Number of Strips	Price	Price per Strip
2	€1.60	€0.80
3	€2.40	€0.80
8	€6.40	€0.80
15 (concession)	€5.00	€0.33
15 (full fare)	€7.60	€0.51
45	€22.50	€0.50



Types of *strippenkaarten*. The one on the left is for reduced-rate travel



The "Voor U" brand, developed by the Utrecht transport authority, here operated with buses from Connexxion, and the standard Connexxion livery.

Sterabonnement

The *sterabonnement* (star-ticket) is a weekly, monthly or yearly pass used in urban and regional public transport. It is a part of the national ticketing system. The ticket is based on the same zone system as the *strippenkaart*. A ticket-holder chooses a home-zone and the number of adjacent zones in which he/she wishes to travel (up to six adjacent zones). Thus, a network of trajectories emanating from the home-zone is created which gives the card its eponymous name. The table below lists a series of fares for a given number of zones and time period:

Type of pass	Weekly (full/conc.)	Monthly (full/conc.)
1-star	€12.75 / 8.45	€42.25 / 27.90
2-star	€21.20 / 14.00	€69.40 / 45.80
3-star	€31.65 / 20.90	€103.15 / 68.10

A year-pass costs ten times the monthly pass.

Regional fares

With the introduction of franchising a wide variety of regional fares have started to develop. One of the aims of the decentralisation of powers and of the introduction of competition was to allow for a better match between passenger needs and supply. This includes the idea of more tailor-made fares, adapted to local needs. Many operators and local authorities have happily made use of this possibility by introducing attractive local fares. About one quarter of total passenger revenues currently come through these regional fares.

OV-chipkaart: National Public Transport Smartcard



Currently, the Dutch government and regional transport companies are introducing a Radio Frequency Identification (RFID) smartcard for all public transport services, including national railway. This system will eventually replace the current paper-based tickets. One of advantages of the system will be to maintain ticketing integration throughout the country, allowing passengers to use one single ticket for any public transport ride. Another advantage will be to allow authorities and/or operators to devise their own fares to be more responsive to local needs than the former national system. Another main advantage under the current franchising regime is that this system should give transport companies precise information on their revenues

by providing detailed information over all journeys made.

The introduction was postponed several times because of technical and organisational issues (for example authorities disagreeing on the tariff system). These problems seem to be solved for the most part and the system has now been introduced in most concession areas, where it functions alongside the *strippenkaart* system. Some areas (such as Rotterdam and Amsterdam) have already abolished paper tickets. The OV-chipkaart should replace the *strippenkaart* altogether by mid-2011.

Unlike the *strippenkaart*, the OV chipkaart is based on a kilometre-based tariff. This is partly due to the perceived unfairness of a zonal system for some trips. Once the changeover is complete, the existing zonal system will disappear, as will the standardised fare across the country. Upon boarding local transport, passengers scan their card and are charged a fixed check-in tariff of €4,00 (on the NS this tariff can be upwards of € 20,00 depending on the smartcard used). When exiting the vehicle, the user has the card read again (check-out) and the correct fare is automatically calculated, deducted and displayed (similar to the Oyster Card in London). The ministry has set a uniform base fare of €0,78, leaving each region or province to set the price per kilometre. The flexibility of the smartcard allows in the future for time or demand-based fare systems.

The table below lists the kilometre tariff for several regions (2010):

Area	Price per kilometre in addition to the base fare of €0.78
Region of Utrecht	€0.12
Fryslân	€0.10
Haaglanden	€0.131 – 0.153
North Holland	€0.104
North Brabant	€0.115
South Holland	€0.118 – 0.136
Twente	€0.14
Zeeland	€0.125
Rotterdam	€0.12
Amsterdam	€0.104 – 0.135

If the passenger exits a vehicle and re-boards another vehicle within 35 minutes, he/she will not have to repay the base fare of €0,78 (even if not re-boarding at the same stop).



A Connexion onboard chipkaart fare reader with a debit card top-up machine underneath.

The OV-chipkaart makes travelling easier for the passenger: he only has to check in and out and – in contrast to the strippenkaart system – one does not need to know in advance how many zones one will travel through. Despite these advantages there is some resistance against the OV-chipkaart from passenger advocate organizations: they argue that in some areas the average fare will increase because of the OV-chipkaart. They also question whether the system is always easy to use for passengers: for example, when changing railway operators a passengers has to 'check out' with the first operator and 'check in' with the other.

Student Pass

Since 1991, most national Dutch students benefit from free public transport. This system is paid for by the Ministry of Education, which paid € 300 million in 2009 to subsidise the programme. The card was introduced to replace a complex system of travel allowances. It was cheaper to administer and at the same time gave the students the benefit of free national travel compared to the more restricted older travel allowances. Originally it allowed students free travel any day in the week. Since 1994 students have had to choose between a pass for weekdays and a pass for the weekend. There have been repeated attempts by the government to end the Student Pass, which every time has been met by fierce resistance from student advocacy boards.

Dutch Railway Passes

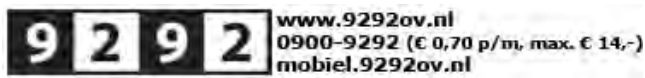
Unlike regional and urban public transport, the Dutch Railways have not participated in the national fare and ticketing scheme

of the strippenkaart, instead implementing a series of passes and tickets for use exclusively on their network. In urban regions, a trip by train can be cheaper than a comparable trip by bus or tram over a similar distance. The railways are now, however, participating in the national smartcard system as means of ticketing integration, but are continuing with their own fare system. Travel costs are calculated based on distance travelled and the route chosen. At every station there is at least one ticket machine (recently a surcharge of €0.50 was added to ticket-window purchases). Many commuters have a *voordeelurenkaart* (literally advantageous-hour-card, or off-peak discount card) which gives a 40% discount on all national routes after 9 am during the week and all day at the weekend at an expense of €55/year. For an additional €15 one can add RailPlus which gives a 25% discount on full-fare international tickets. Additionally, travellers can buy either seasonal route passes or seasonal tickets covering the entire national network (including those routes tendered to 3rd-party operators). Trajectory ticket prices are based on the distance travelled but usually pay off after twenty days of travel in a month. A year trajectory ticket costs ten times the corresponding monthly pass. In 2010 a 2nd class year-pass costs €3,451.00 and a supplement to use all local public transport in the country adds €576.50.



When two different rail operators call at the same platform, travellers must check in and out from each mode using the chipkaart readers of the respective operator. Here in Duivendrecht, the platforms have readers for both the NS national railways and the GVB metro.

Travel information



Already by the 1990s the Netherlands had a nationwide door-to-door travel information service: 9292 (named after the customer phone number: 0900 – 9292). 9292's main services are a nationwide phone number and internet travel planner providing door-to-door public transport advice to passengers, including information on service disruptions though not (yet) real-time service information.

9292 is owned and paid for by the largest transport operators. Smaller operators are not part of 9292; however, their information is included in the service, as all operators are required by law to provide timetable information to services such as 9292. Funding has become an increasing problem for 9292. In contrast to the 1990s, when most customers used the tolled telephone service, the service itself is no longer profitable since most users now use the free internet planner. 9292 is trying to obtain subsidies from both the Ministry of Transport and regional authorities in order to develop new products. But these authorities are at the same time considering building a new national database with nationwide timetable information as well as real-time travel information. All market parties that develop new travel information products could then use this database. The future role of 9292 in this national database is still uncertain.



In every concession the authority sets the minimum level of travel information. This provides passengers with a guarantee that bus stops will have a timetable, often a network map, and customer services contact. In addition, all operators have their own website with timetable information and a travel planner. Increasingly authorities also set certain minimum standards for these websites, as well as specifying requirements for information by mobile phone; or the operator has to develop a travel information plan as part of the tendering process, which is evaluated as part of the awarding process. There has been a major expansion of real-time travel information at bus stops in recent years in many areas, mostly led under the administration of the transport authorities rather than through the operators. As part of franchise requirements operators were required to equip their buses with on-board GPS to track the location of the bus and to send the information to a central server. With a few exceptions, these servers are owned and operated by the authorities. Displays showing

real-time departure times are usually owned and maintained by either the authority or municipal road authorities. There have been some problems with the reliability of real-time travel information mostly because of interface problems between bus, server and displays. For this reason, seven authorities recently developed a central server system for all real-time travel information in their areas, to be used by the authorities, operators as well as third parties interested in developing travel information products. This server could be the beginning of the national database of real-time travel information.



Screenshots from the 9292ov iPhone application which gives users up-to-date travel information on the go.



The Binnenhof, seat of the Dutch parliament in the Hague.

Passenger transport legislation

- *2000 legislation drives franchising of regional bus and rail outside the three largest cities*
- *Legislation based on open competitive tendering with authorities specifying objectives and the framework and operators inputting on the detail of how best networks can deliver objectives most efficiently*
- *There are some examples of integrated franchising of bus and train, leading to advantages for travellers as well as more efficiency in operations*

Public transport until 2001

Until 1969 Private Enterprises

Until the 1960s regional public transport usually was a profitable business. Regional and urban public transport was carried out by private and public enterprises, running under a licence granted by the national government. The state-owned Dutch Railways (NS) provided all rail services. There were no structural subsidies for public transport. Yet, with rising labour costs, increasing suburbanisation and car usage in the 60s, public transport became unprofitable.

1969 – 1988: Stable State-Owned Companies

1969 was the first year in which losses by public transport were compensated by the national government. From 1974 onwards, the national government started subsidizing these companies structurally. Losses kept increasing in the 1970s. The national ticketing system (strippenkaart) was introduced in 1980 as part of a reform of public transport and its subsidisation. This was followed by a stabilisation of the subsidisation needs.

1988 – 2001: First Reforms

In 1988 a new Passenger Transport Act was introduced. Subsidies were now based on the amount of passenger kilometres realised instead of deficit reimbursement – this measure was meant to increase efficiency in the sector. Responsibility for urban transport was shifted towards the larger municipalities; regional transport remained under the responsibility of the ministry.

In the 1990s the Brox Committee appointed by the ministry to tackle the problem of growing road congestion, suggested a more radical reform of the sector, aimed at generating a modal shift from car usage to public transport. In line with the spirit of the times the introduction of competition was proposed in order to reach this goal. Deregulation – as in the British bus market – was considered but rejected. Instead, competitive tendering was chosen as the main policy. This led to the Passenger Transport Act 2000.

In the meantime, many urban and almost all non-urban bus companies in the country were owned by the state-owned VSN Group. Because of the expected introduction of competition, VSN was forced to sell parts of its operations to competitors. This led to the entry of Arriva and Veolia (then under the Connex

brand) on the Dutch market.

The Passenger Transport Act 2000

The Passenger Transport Act of 2000 had two main goals:

- Increasing the attractiveness and usage of public transport especially in urban areas;
- A higher degree of cost coverage of by passenger revenues – in 2000 the cost coverage was approximately 35 % the aim of the Passenger Transport Act 2000 was to reach at least 50 %.

Since its enactment, the Transport Act 2000 (*Wet Personenvervoer 2000*) has formed the legal basis for public transport in the Netherlands. Public transport has since been organised according to the following principles:

- Exclusive public transport concessions (max. 8 years) are required to operate bus and/or regional train services
- Mandatory competitive tendering of these concessions under a regime that aims to utilise the operators' creativity and knowledge by giving them at least some service design freedom
- However, national rail and the 3 largest cities do not have competitive tendering obligations and are currently covered by companies owned by the public sector

Main features of the Passenger Transport Act 2000:

- *Decentralization: 12 provinces and 7 city regions were appointed as public transport authorities*
- *From 2001: mandatory contracting of public transport by these authorities*
- *Gradually: mandatory competitive tendering of public transport (except for the largest three cities and the national rail network)*
- *Contracted operator has to take over operational staff from the former operator*
- *Legal advisory position for passenger representative organizations*
- *Financing: the Ministry of Transport pays provinces and city regions instead of funding the operators, these authorities are then free to decide the way in which they pay their operators*

The main long-term goals of this legislation are supposed to be the realisation of an increase in ridership (preferably at the expense of the car) and a higher level of cost coverage. For

this purpose, one of the important ideas behind the Act is to give service design freedom to the operator in the context of competitive tendering procedures; in this way, the operator's knowledge and creativity could be used to reach the aforementioned goals. This idea was related to another goal of the Act which was to professionalise the public transport sector in such a way as to avoid excessive authority interventions based on short-term political issues and problems that would only hamper the realization of long term policy goals.

Urban and regional public transport

The competitive tendering procedure is organized by one of the 19 transport authorities: 12 provinces and 9 'City Regions' (*stadsgeregio*, cooperation between municipalities). The authorities are free to change the division of concession areas to their wishes. The new legislation resulted in a situation in which the Netherlands is divided into about 70 concession areas (bus, tram, metro, fast ferry and regional rail). Concessions are areas in which a public transport operator has a temporary monopoly right for usually 6 to 8 years (the law allows concessions up to 8 years, concessions including rail may last up to 20 years).

This exclusive right has to be submitted to competitive tendering. This obligation was introduced gradually after 2001 to reach currently almost all public transport services outside national rail and the main cities.

The tendering procedure is determined by additional national ministerial regulations that follow from the Passenger Transport Act. The procedures set out in the regulations currently prevent the usage of negotiations and require tenders to be awarded mainly through multi-criteria evaluations of bids.

The four largest cities were originally temporarily exempted from mandatory competitive tendering when the Passenger Transport Act 2000 was introduced. Arguments for the exemption were varied: organisational difficulties in transferring the ownership of the municipal operators, relative inefficiency of these operators and – consequently – the need for a longer time to adapt to the new setting, political support for public ownership, trade-union opposition to competition, and the argument that the larger complexity of public transport in main cities (large volumes of passengers, coordination issues between different modalities, etc) would argue against an easy transfer to a tendering regime.

With the enactment by the European Parliament of the new Regulation 1370/2007 allowing in-house operations in public transport, the Dutch Parliament eventually requested that the government transform this temporary exemption of competitive tendering in the main urban areas into a permanent exception. This move was also related to a widening scepticism about the positive effects of competitive tendering, despite many of the successes that could be observed. As a result, these cities will now probably be able to choose between either submitting their public transport services to competitive tendering and granting a directly awarded concession to their municipal operators. Pending the legal change, the cities of Amsterdam, Rotterdam and The Hague have chosen for the latter, keeping their public

operator in charge of public transport, albeit under stricter contracting conditions. The exception no longer applied in the fourth large city (Utrecht) as the municipal operator GVVU had already been sold to Connexxion. Due to the exercising of the exception, there are still three municipal companies active in the Netherlands: GVB (Amsterdam), HTM (The Hague) and RET (Rotterdam), which still carry a major share of local and regional public transport in the country.

The rights of operational staff and passengers are protected by law (WP2000). A contracted operator has to take over the operational staff from the former operator. The strong trade-union power in the sector, and some political support, managed to guarantee these protections. This guarantee covers all operational staff directly involved in the operations of the concession (mostly drivers), but also a certain percentage of office staff (planners, etc.) The winning bidders have to take over this operational staff at their employment current conditions, and these have to be maintained for at least a year.

Increasing emphasis on operational staff

In recent times, authorities have put an increasing emphasis on staff training and management when tendering their area. Previously, it was felt that this was an internal issue for the operator. However, authorities increasingly realize that well-trained and motivated staff contributes to a good public transport product. Many recently tendered concessions include demands regarding the training of staff and requesting the operator to develop a plan to enhance the training and well being of the staff.

Some authorities even go further: The province of Gelderland now carries out a yearly survey of 'drivers' satisfaction' (in addition to passenger's satisfaction) and can give the operator a bonus if satisfaction is above a predefined level.

This has generated a wider discussion as these consider these actions as undesirable interventions in internal operators' issues. In any case, these actions are reactions to earlier disappointments and problems in concessions tendered earlier. It illustrates the importance of a proper calibration of contractual incentives and the danger of the inherent tendency of the tendering process of going for too much cost minimization.

For direct overhead staff (managers and assistants in offices and regional offices), only those personnel directly involved with the concession should be transferred to the new concessionaire.

In most cases they remain employed in the same area. The same applies usually to indirect overhead staff (management at headquarters) as well, however due to the indirect nature of the relationship a mathematical equation is used to determine how many employees from the main office should be transferred to the new concessionaire. In practice the transfer is often used to organise an internal reshuffle and to pass less productive personnel to the winning competitor. Because the reorganisation affects staff at the central office, the transition often results in a reassignment to another office location.

Passenger's advocate organizations have a legal position: authorities and operators have to consult these organizations

at certain defined moments, including during the tendering process and when designing a new timetable. In most areas, a permanent regional consultation structure between authority, operator and passenger organizations has been implemented in order to deal with this.

Rail services

The 1995 reforms of the railway sector initiated a separation of rail infrastructure management (including traffic control and capacity allocation) from train operations. A further reform introduced in 2000 decided to let the existing main-line network “find its new equilibrium” without competition. As a result, NS was granted an exclusive right and duty to operate the whole main-line network until 2015, including both the profitable intercity trains as well as the often non-profitable local trains on those routes.

Both NS and ProRail (the infrastructure manager) are publicly owned limited liability companies. Both are submitted to a concession agreement (contract) with the ministry and both have to submit a yearly management plan to the ministry. Some incentives are related to the realisation of the aims set in these plans.

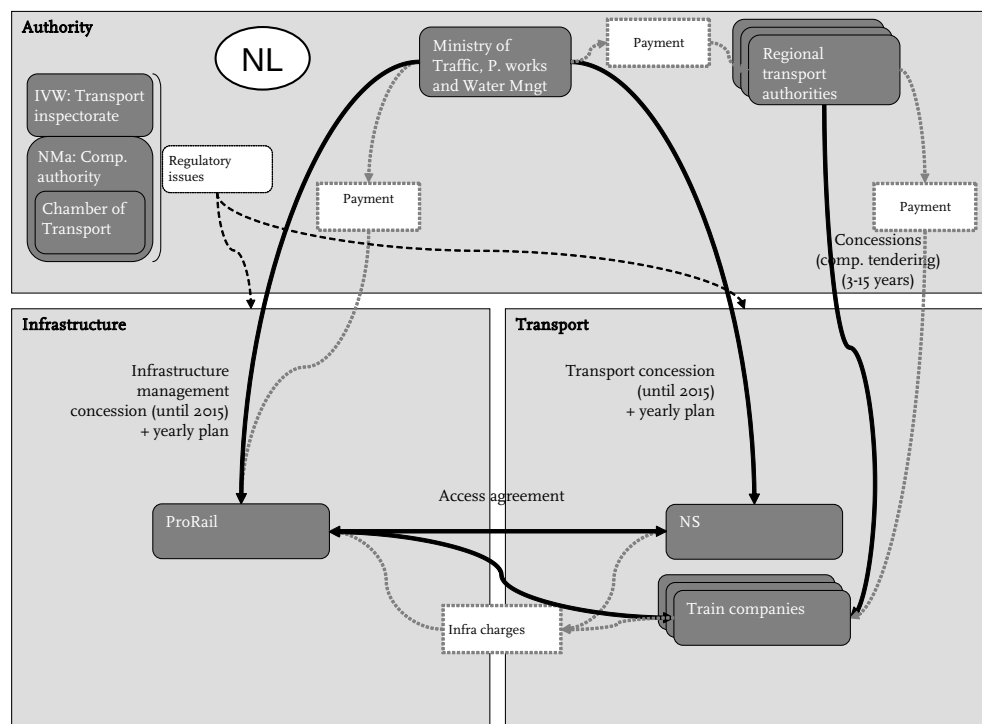
On-the-track competition in passenger transport by train appeared shortly after the 1995 reforms, although not exactly as planned: a small company called Lovers Rail operated between Amsterdam, Haarlem en IJmuiden (1996 – 1999), which was later sold to Connex/Veolia. This operation, which led to an important political debate about competition on the railways, was not successful: Lovers did not manage to make a profit from the operation of these passenger trains. This was partly due to a lack of ticketing integration with the national railways (NS). The failure of Lovers Rail led to the political rejection of further elements of free competition on the tracks (except for freight transport).

The first experiments with decentralization and contracting of regional rail transport took place in the 1990s. In the eastern part of the Netherlands, the state-owned regional bus operator won the right to operate a short railway line by competitive tendering. NS started a joint venture (Syntus) with that operator and a subsidiary of the SNCF Group to operate an integrated bus-train network and was granted by the same province a further contract, at that time still without competition. A similar development was seen in the north where NS co-operated with Arriva in a joint venture called NoordNed. Later NS sold its share in NoordNed,

which was fully acquired by Arriva. Both joint ventures aimed at creating synergy between bus and train. Bus lines running parallel to train lines were rerouted and were connected to the train instead, reducing costs and increasing the cost coverage of the railway. Passenger service was increased by guaranteeing bus-train connections and vice versa and by providing integrated tickets and passenger information. In addition, operations were made more flexible, with train drivers also working as bus driver and vice versa.

With the 2000 reform, it was decided that most branch lines of the national rail network would be submitted to competitive tendering, as a separate contract or in combination with the adjacent bus concession. This has now been realised and currently Veolia, Arriva, Connexion, RegioNS and Syntus operate such lines. In some cases, the authority has tendered bus and rail together in order to realize synergy.

A further major competitive tendering case is that of the high-speed line Amsterdam-Rotterdam-Brussels –Paris that partially entered service in 2009. HighSpeedAlliance (HSA), a joint venture of the NS and KLM/Air France, won this exclusive contract. In contrast to regional tendering, where the government subsidizes the concessionaire, this contract entails a yearly payment of € 148.26 million by HSA to the State.



Source: van de Velde, D.M. and E.F. Röntgen (2009), "Railway separation - European diversity", *Proceedings of the 12th Annual International Conference on the Economics of Infrastructures* (Eds.: Auger, J.-F., J.J. Bouma and R. Künneke), Delft, p. 205-224, Delft University of Technology.



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Main Franchising Formats

The Transport Act 2000 aims to give transport operators the responsibility to identify (potential) passenger demand and design transport services accordingly. Operators are to be selected in a competitive tendering procedure, but the Act leaves considerable freedom for authorities to define the way in which services are franchised.

Due to this, the reform aimed at concentrating the authorities' interventions in setting public transport 'aims' with preferably a functional definition of service aims, and it tried to discourage them deciding on 'means' such as the location of specific stops, routes, etc. Such approach was deemed necessary to counter the tendency that could be observed within some city councils to overvalue the needs of the last single underprivileged passenger and to undervalue the needs of the majority.

One of the effects of the Act has indeed been beneficial in forcing the authorities, in their new role of transport authority, to develop explicit public transport policies at a more strategic level, stating general goals and priorities, combining the locally accountable transport authorities' understanding of local need with the private sector's understanding of how these needs can best be met in a cost effective way.

As the following examples will show, the past nine years of experience with contracting and competitive tendering in Dutch public transport have seen the development of a broad spectrum of formats for franchising. These vary in a number of respects, including:

- Level of service design freedom given to the operators during the tendering procedures;
- Level of service design freedom given to the operators during the contract period;
- Type and scale of the incentives given to operators to ensure the achievement of the transport policy aims;

- Size, length and scope (bus and/or train) of the concessions
- Selection and awarding procedure.

It is impossible to present all of these options in detail here. For clarity's sake, we will present three typical cases which exemplify the range of franchising formats which have been employed:

- **Superincentive contracting:** the operator is granted a substantial level of service design freedom during the awarding procedure and during the contract, the minimum service requirements are specified by the authority in a functional way (i.e. services to be produced are specified according to a set of accessibility norms that have to be realised for a specific population, area or town, rather than according to routing and timetable to produce), the operator carries revenue risk and is stimulated to grow ridership by powerful financial incentives related to realised ridership, the contract does not include any fixed annual payment;
- **Net-cost contracting:** the operator is granted some service design freedom during the awarding procedure and during the contract, the minimum service requirements are specified by the authority in a functional way, the operator carries revenue risk, the operator is granted a fixed annual contractual payment ('subsidy') and is incentivised by some additional financial incentives to improve its services to the passenger (customer satisfaction, ridership growth, etc.);
- **Gross-cost contracting:** the operator has no service design freedom, the authority fully specifies the services to be provided (although the operator could suggest frequency increases), the operator does not carry any revenue risk but he is stimulated by some financial incentives related to service quality criteria (e.g. punctuality).

Let us look in more detail at each of these three concession types.



A 'Brabantliner' bus travelling in the North Brabant city of Breda where the province had a large influence on the bus livery.

While the public operator GVB runs Amsterdam's innercity buses, most other routes in the region and to and from the city centre have been tendered out.



Service design by the operator under 'superincentive'



All suburban/regional bus services around Amsterdam City have been subject to competitive tendering. This is done under an innovative form of revenue-based contracting that can be classified as a 'super incentive' contract. The transport authority of Amsterdam (Stadsregio Amsterdam – SRA, City Region of Amsterdam) has a total budget of approximately €400 million

per year, out of which €225 million is paid out to public transport operators for operations, including rolling stock depreciation and interest payments. Passenger revenues yield about €175 million per year. Because SRA wanted to achieve patronage growth, SRA chose to use a revenue-based contracting approach where the main incentive is rewards for patronage growth. In this type of superincentive contract, the subsidy is based on revenues. So subject to checks and balances (detailed below) the more revenue growth achieved by the operator, the more subsidy the operator receives. As fare increases are regulated and capped by the national fare system, an increase in revenues can only be achieved by an increase in ridership, which is one of the main long-term goals of the authority. At the same time, to provide for a well-balanced contract operators are also allowed to redesign services within some strict boundaries set by the authority (such as detailed minimum service levels).

This contract was designed so that the operator would be under a strong incentive to increase demand and thereby revenue. The contract was also designed to be self-regulating, as poor services would mean no passengers, no turnover and thus no

subsidy. The danger of such a contract resulting in substantial subsidy increases was countered by making use of the competitive tendering procedure to calibrate the incentive to a realistic level.

Area	Call for Tender	Awarding
- Province of Noord Holland - Mix of urban and suburban becoming more rural to the north. 145,000 inhabitants - Contract duration: 2006-2011 - Bus (approx. 150)	- One network - Objectives based (so-called 'functional tendering') - Incentives linked to realised passenger revenue - Fixed annual maximum subsidy - Assets owned by Operator	- Competitive tendering - Complex multi-criteria evaluation (60% quantity and quality of service provision such as network and timetabling, 15% operational service quality, 15% revenue growth and marginal cost per bus-hour, 10% realization of wishes (in terms of additional services, newer vehicles, etc))

The total available yearly subsidy is set out at the beginning of the tendering procedure. The bidders are then asked to make an offer for the level of revenues they think they can achieve during the contract period. The total available subsidy per year is then divided by this revenue bid for each year. This determines a so-called 'subsidy factor' or multiplier. The actual subsidy paid by the transport authority during the contract is then calculated by multiplying the realized revenue – not the promised revenue – by this subsidy factor. This results in a high level of self-regulation as an exaggerated revenue growth in the bid would result in a lower level of subsidy during the contract period. Although the operator does not receive any fixed annual payment, it is important to note that public transport is characterised by a substan-



tial level of captive passengers. Therefore the variable revenue is less variable than it might seem, making an incentive system based on rewarding revenue/patronage growth less unpredictable and risky than may appear at first sight.

Freedom	Incentives	Enforcement
- Operator may freely change services in order to meet the specified objectives ('functional' specifications), after consulting with passenger councils - Obligation to produce total number of bus-hours included in the bid	- Operator takes revenue risk - Revenue multiplier paid by Authority, calculated on the basis of promised revenue growth in bid, and paid out according to realised revenue growth	- Monitoring by customer satisfaction index with bonus/penalties - Monitoring of realised services and punctuality with penalty for poor performance

The operator is allowed during the contract period to alter his original service specification in order to respond to changing demand. The freedom to alter service quantity is limited however. Reducing services beneath the original bid is only accepted when the passenger advisory committee (composed of representatives of all passenger advocate's organizations in the area) agrees – and this does happen. Normally, however, a reduction of supply on one bus route has to be compensated by an increase on another. The municipalities also have the right to come forward to the operator with proposals on service changes or fares offers to attract more travellers. In all cases, the authority has to approve modifications to service specifications before an operator can implement them. This approval is based upon advice from an advisory committee of councillors in all the municipalities

covered by the concession area and from a passenger advisory committee.

The contract type presented above was implemented for all three suburban bus concessions around Amsterdam city centre. Whilst the fundamental principles underpinning this superincentive franchise remain the same, there has been some evolution taking into account experience on the ground. The complex interplay of local political wishes, the complexity of this kind of contracting, and the inherent preference of (political) authorities for certainty has gradually led to a more prescriptive stance from the authority and recently also to more traditional incentive mechanisms. Let us see why.

The first results were encouraging as the bids for Zaanstreek and a year later for Waterland were impressive:

- 20% (Zaanstreek) to 50% (Waterland) higher supply to be realised at contract start
- 25% (Zaanstreek) to 35% (Waterland) higher revenue to be realised during the contract period
- New buses (both)
- Fully accessible buses (both)
- Better passenger information (both)
- This against a 10% less subsidy needed set up front

The tendering process itself was perceived by the authority to be less successful in three principle ways:

- The terms of reference combined with the highly sophisticated mathematical evaluation process were perceived by the bidders to be very complex as bidders experienced difficulties in trying to understand what SRA was really asking for;
- The bids themselves were also very complex and necessitated a complex, labour-intensive bid evaluation process for SRA's civil servants;
- In terms of implementation, the very substantial growth in supply and the deployment of a completely new bus fleet also led to a difficult transition from incumbent to new operator.

This led in the next tendering round (Amstelland-Meerlanden concession) to a more 'controlled' form of competition with stricter boundaries set by the board of the transport authority. The schedule of requirements had less objectives-based ('functional') requirements and more technical requirements, i.e. less abstract formulations of service objectives (accessibility goals and so on) and more detailed services specifications (routes, frequencies and so on) This effectively limited the freedom of the bidders during tendering and put more emphasis on the redevelopment development during the duration of the concession.

To prevent problems with the implementation of this (large) concession, SRA demanded that bidders develop a detailed implementation plan to be included in the tender documents – points were also awarded for this in the evaluation of the bids. In addition, SRA assigned a civil servant to follow closely the implementation phase by the operator. Results in terms of offered supply were high. Connexion remained the operator of that area and offered:

- 60% increase in services

- 50% increase in revenue
- New fleet of fully accessible and low emission buses
- Better passenger information
- 5% reduction in public contribution

One of the aims of the adopted contracting approach was to stimulate creativity and customer focus from operators. After a few years, this seemed to be successful as new initiatives by operators were witnessed. Real revenue growth figures in the three tendered areas initially proved to be high, in line with the growth promises. Whether this is mirrored by actual passenger growth seems plausible but remains uncertain due to the way in which revenue and ridership statistics are collected in the Netherlands under the current national fare system.

The growth observed in the first contract years (around 9 and 15%) took place at time when new marketing, promotional activities as well as autonomous action on service provision by the operators could be seen. These were mainly specialized bus routes, such as a school bus to avoid overcrowding on conventional commuter bus services and the opening of several new bus routes aimed at commuters.

However, in 2008 there was a substantial fall in ridership reportedly due to a series of major national public transport strikes and perhaps also because of the wider economic downturn. As a consequence, and despite higher passenger growth in the early years than the national average, the Waterland concession probably experienced losses in 2008 as cumulated growth had returned to about 7%. It remains difficult to say whether this is bad luck from the effect of the strike and the economic downturn, or whether this is the result of an exaggeratedly optimistic bidding by the operator. In 2009, passenger numbers were on the rise again, reaching about the same level as in 2007, but data on 2009 is not yet validated (illustrating also one of the downsides of the current national fare system not being able to quickly incentivise operators due to its lagged feedback). The question that follows is whether the contract is able to cope with the significant impacts of such external factors on ridership levels.

The recent retendering of the Zaanstreek area (2010) led to only one bid being delivered, by the incumbent. They promised to increase supply by 9% and purchase new vehicles. Note that the authority had increased the available budget by 20% for this tendering round and had chosen to franchise on the basis of a mixed contract, with a 60% lump sum payment and 40% based on super-incentive payments related to passenger revenue. The main reason for that change in contracting approach was because a large proportion of the services covered by the franchise are social rather than commercial. Growth is not to be expected on those services, unlike the major routes connecting the regional centres and Amsterdam. In this context a 100% super-incentive regime was now considered to be inappropriate.

The authority is now preparing to re-tender the Waterland area, and is likely to go to the market with a 100% superincentive contract – with however the more controlled tendering approach used earlier for the Amstelland-Meerlanden area (i.e. without network design freedom at the time of tendering).



Service design by the operator under net cost contracting



In 2006 the province of Limburg tendered all its public transport services for the first time. This was done via two large multimodal franchises, which incorporated both local rail services and various demand-responsive systems. Bids could be placed for each of the two networks as well as for the province as a whole.

One of the key elements of this franchise was the integration between train, bus and 'regional taxi' (*Regiotaxi*, a combination of 'WMO'-transport for disabled people and public transport on demand).

Bidding operators received a relatively large amount of design freedom: they could redesign the network and timetable and also shift between the various transport modes. It was hoped that this freedom would lead to synergy between the transport modes, e.g. by rerouting bus routes to connect with trains instead of running parallel to them. This would then lead to a more effective and efficient transport network.

This design freedom was limited by a set of minimum service levels, as specified in the Terms of Reference for the tender. These minimum service levels required regular transport services to every town with more than 2,500 inhabitant. For several categories of towns minimum levels were defined, containing the following aspects:

- Minimum frequency
- Maximum travel time to the nearest transport node



- Maximum number of interchanges in connections with nodes or attraction points,
- Maximum distance between the bus stop or train station and the entrances of residential housing or industrial estates.

Awarding criteria included price on the one hand and quality on the other hand. The qualitative criteria were evaluated through a set of plans that bidders had to develop, including a network/timetable plan, a security plan, an accessibility plan and an implementation plan.

Area	Call for Tender	Awarding
• Province of Limburg • 1,234,000 inhabitants • Mix of urban, suburban and rural areas • Regional train, bus and demand-responsive transport • Contract duration: 10 years (2006-2016)	• Two networks (North and South Limburg) • Objectives-led ('functional') tendering with low specification level • Assets owned by operator	• Competitive tendering • Complex multicriteria award based on both price (total subsidy and cost coverage) and quality (development of new connections, several plans regarding operational quality)

Three companies placed a bid. Both concessions were awarded to Veolia. The province was satisfied with the result: Veolia provided 40% more services and a completely new bus fleet from the first day of the operation. Bus frequencies increased to every 7.5 minutes in the city of Maastricht; train frequencies increased to every 15 minutes. The network was redesigned as to better integrate bus and train lines. Veolia also introduced new buses

and trains, with state-of-the-art accessibility features, high levels of passenger comfort and which met high emission standards.

In the first few months after the start of operation, rail passenger numbers increased by 30 %, partly due to the fact that the redesign of the network meant that passengers who used to travel their entire journey by bus now make part of their journey by train. However, initially this also led to major capacity problems on the railways.

Freedom	Incentives	Enforcement
• Operator has freedoms to adjust service specification within certain minimum standards of service set by the authority	• Revenue risk is with the operator • Bonus/penalties linked to cost coverage and passenger satisfaction • Special subsidies for certain issues (accessibility, security)	• Operational quality (punctuality) monitoring, enforcement with penalties • Penalties max. € 1,000,000

The operator bears the risks of passenger revenues under a net cost contract. The operator gets paid a fixed (but indexed) subsidy per vehicle hour as well as the passenger revenues. In addition there is also a penalty regime for poor performance.

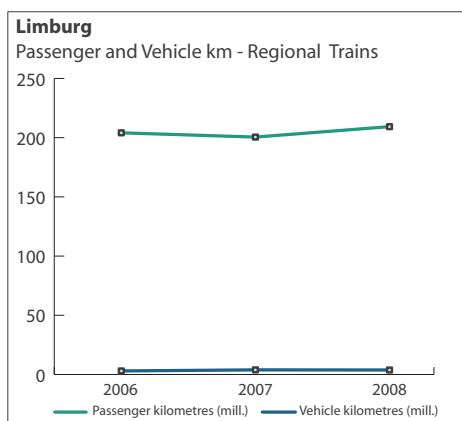
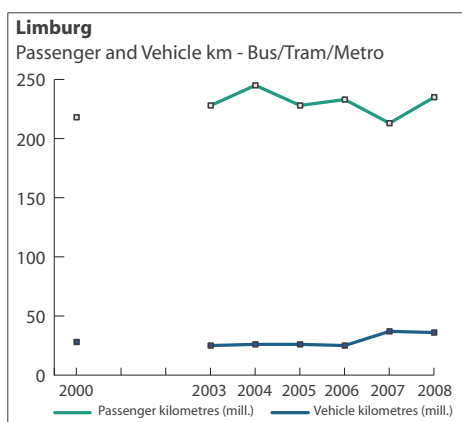
Despite some problems during the transition phase of the new contract no fines were levied. This is partly because the authority wanted to develop a good relationship with the operator, and partly because the authority felt that the implementation period imposed had been too short to ensure high levels of performance at the start of the contract. Passenger-km rose between 2007

and 2008, but the general evolution tends to be rather stable.

Overall the authority has been satisfied with the outcomes of this format for franchising and has realized most of the goals that it set. The main downside from the point of view of the province is it felt that the operator tended to concentrate too much on meeting its contractual requirements, rather than passenger needs.

However, the satisfactory result of the tendering process did not translate in increasing numbers of passengers. Despite a major rise in vehicle hours, passenger numbers dropped significantly in the first year of the concession. In recent years, however, passenger numbers are on the rise again and back to the level it was before tendering the concession. More problems arose in 2008 when Veolia requested more subsidy from the province due to increased fuel costs. Veolia claimed that in 2007 it lost more than 10 million euro on the contract. Disappointing passenger numbers may have also played a role in this loss.

At first, the province refused, claiming that according to the concession conditions, Veolia had no right to demand such an increase in subsidies. However, after Veolia claiming that it could go bankrupt and after drivers' strikes due to wage conflicts with Veolia, the province agreed to an extra payment of 800,000 euro. (It has to be noted that at that time all major operators were having conflicts with various authorities about increased fuel costs).



Note: The new concession started in December 2006.
Source: KpVV (2010), Ontwikkeling OV 2000-2008



Service design by the authority under gross cost contracting



The provinces of Groningen and Drenthe are an area that is mostly rural with a rather low population density by Dutch standards. The two main cities are Groningen and Assen. A particularity of this area is that the two provinces, as official public transport authorities, created a combined public transport bureau in order to tender, manage and market

public transport in their areas. This includes the design of the public transport network and the determination of its fares.

The public transport bureau contracts its transport services in several contracts:

- Regular public transport services (both urban and regional) are contracted as a single 6-year (2009-2015) gross-cost contract with all routes, stops and frequencies decided by the transport bureau.
- Regional 'express' services serving four relations not well served by rail are provided through two separate contracts (one for 2009-2015 and one for 2005-2011 to provide one route in cooperation with the neighbouring provinces of Fryslân and Flevoland);
- Additional 'small-scale' services are tendered in six separate regional gross-cost contracts (2009-2015). These are the Regiotaxi (providing in this area taxi access to main public transport services and also door-to-door services for shorter trips that are not served by the main public transport routes, both at a premium fare compared to regular public transport), neighbourhood buses and 'line-taxi' services (taxi services operating on demand some weaker regular public transport



Brand new Mercedes Citaro buses of the Groningen/Drenthe concession winner Qbuzz on display in September 2009 at Drenthe Airport.

routes in the evening and the weekend). The WMO and special schools services were tendered at the same time but will not be included into these 'small-scale' services contracts until the expiration of the existing WMO and schools agreements.

- Regional railway services (2005-2020) are provided under a contract tendered jointly by the neighbouring provinces of Fryslân and Groningen.

The regular public transport services contract (start of operations 14 December 2009) includes a number of incentives. These are essentially bonuses linked to specific aspects of the nationally held customer satisfaction enquiry (the so-called 'customer barometer' which is a survey completed by approximately 80,000 passengers managed by the Knowledge Platform Traffic and Transport (KpVV), which is a public body working for the transport authorities). The aspects selected are those on which the operator has some influence, such as cleanliness, friendliness of the driver, driving style, information and punctuality. These bonuses are paid when the customer satisfaction exceeds preset targets. The operators are required to deliver a yearly quality plan that should explain how they intend to realise the targets. The contract also includes an extensive list of financial penalties linked to the non-realisation of specific contractual agreements such as the realisation of the quality plan, the usage of inadequate vehicles, the non-respect of specific requirements pertaining to the personnel, punctuality standards, information on board, etc. Most of these penalties amount to about 250 euro per case up to a maximum of 25,000 euro per category (of which there are 15).

Although the contract is gross-cost, the public transport bureau nevertheless invites the operator to suggest service innovations in additional separate business cases to be negotiated during the contract period. This feature is meant to incentivise the operators to suggest services that could generate more business or profits or contribute to a better realisation of policy aims.

Several ways to allocate cost and revenue risks to operator and authority can be considered, the aim being to find ways that should maximise the incentive for the operators to innovate. With only a few months of operation, it is unfortunately too early to judge the success of this contractual feature.

Area	Call for Tender	Awarding
• Two provinces: Groningen and Drenthe • 1,006,000 inhabitants • Mostly rural but with two major cities (Groningen, Assen) • 2009 – 2015 or 2017 • Urban bus (Assen, Groningen), and regional bus	• One bus network (railway services were tendered earlier separately, two longer-distance bus services are also tendered separately). Small-scale transport (demand-responsive) tendered separately • High specification level of routes, stops and frequencies • Assets owned by operator	• Competitive tendering • Complex multicriteria award (price per timetable hour, various plans)

The 2009 contract was won by Qbuzz. Recent statistics on the achievements of this contract are not yet available. Earlier statistics show a stable supply level and slightly decreasing performance in terms of passenger-km.

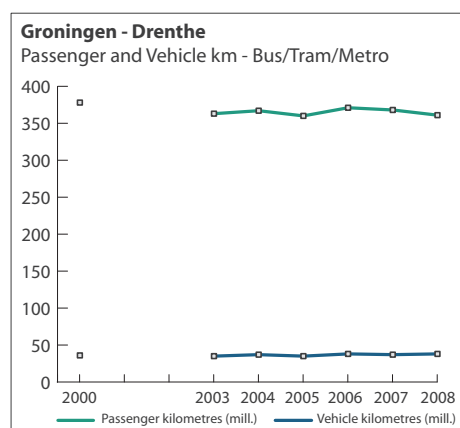
Choosing a highly specified approach to franchising is partly because of disappointment over the outcomes of the previous (non-tendered) contract. That contract had given the operator

more freedom in network design but the operator was perceived to have responded too passively and not taken advantage of the opportunities to bring commercial flair and innovation. However budget cuts – coming from the transport ministry – that had to be imposed upon the operator were probably also a factor, together with the lack of true incentives in the former contract. This had led the public transport bureau into more involvement in the design of the services, which initially led to some success. A growth in passenger revenue could, e.g., be observed under the simplified regional fares introduced by the public transport bureau besides the national fare system. Politicians of the public transport bureau, however, wanted to evolve back to a situation where the operator would be given the freedom to design the network under abstract ‘functional’ (i.e. objective-led) specifications. However, they also wanted to retain the ability to determine fare levels, which seemed more difficult to combine with giving more service design freedom for the operator. Ultimately, a choice was made to use one gross-cost contract for the whole area for the 2009 contract, with possibilities to develop ‘business cases’ as explained earlier.

Freedom	Incentives	Enforcement
- Authority is responsible for developing the public transport product (design of route, frequencies, fares) - Operator is responsible for operational plans (scheduling, etc) - Operator has no freedom to change the services on its own but may suggest ‘business cases’ for service improvements	- Revenue risk for Authority - Bonus linked to passengers’ perception of operational quality	- Operational quality monitoring with penalties - Penalties maximum 2% of total subsidy

Interestingly, the public transport bureau convinced all municipalities in the area to coordinate the tendering of all municipal small-scale social services, education services and services for the mobility impaired (WMO services) with the small-scale regular public transport provided the public transport bureau. These are the Regiotaxi (providing in this area taxi access to main public transport services and also door-to-door services for shorter trips that are not served by the main public transport routes, both at a premium fare compared to regular public transport), the neighbourhood buses and the ‘line-taxi’ services (these are in this area taxi services operating on demand to replace some weaker runs in the regular public transport routes in the evening and the weekend). The WMO and special schools services were tendered at the same time but will not be included into these ‘small-scale’ services contracts until the expiration of the existing WMO and schools agreements. These services were tendered in 6 separate regional contracts won by smaller scale (taxi) companies. This level of coordination between various

types of passenger transport services is rather exceptional in the Netherlands. The advantage for each municipality is a guarantee of a better provision of regular public transport in the evening (though provided by taxi rather than bus) than would have been the case otherwise and the possibility to avoid some of the costs of some other specific demand-responsive services by making use of these taxi services instead. It is unfortunately too early to see whether combinations with WMO and specialised schools transport proves easy in this area (combining specialist transport services with mainstream public transport services can create tensions due to the differing requirements and preferences of the various users) as these combinations will only start at expiry of the preexisting contracts in these sectors.



Note: services where tendered in 2009 (after these statistics)
Source: KpVV (2010), Ontwikkeling OV 2000-2008

Comments on approaches, results and trends

- Substantial improvements in labour productivity
- Significant investment in new and expanded services and new vehicles
- Patronage data is inadequate but regional bus patronage does not appear to have either significantly declined or increased
- Rising levels of customer satisfaction where franchising has been introduced
- High degree of fares integration but greater specification of local fares offers and all within the overall context of fares rising above inflation
- Formal role for passenger groups in franchise development and changes
- Significant innovation and diversity in approaches to franchising – including franchising of whole networks (rail and bus) and integration of social, disabled and educational transport
- Competition for franchises varies but can be low – consolidation of major public transport operators will also affect the way the market develops
- Trend towards greater specification of service detail in response to perceived risks and uncertainties involved in objectives-based franchising. However, new approaches still being developed – including greater co-development of franchises between operators and franchising authority. Lessons have been learnt from the experience of different franchising approaches – this is now being formalised through a nationwide project

Resulting Performances

Competitive tendering has now been used for about nine years in the Netherlands. While the urban core of the large urban areas have been excluded from tendering, almost the whole of the rest of the country has now been subject to competitive tendering.

This has resulted in substantial efficiency improvements. Labour productivity has risen considerably, new bus fleets are now used almost everywhere. The output of the sector in terms of services offered to the population has also risen, and sometimes very considerably allowing authorities to provide substantial service levels increases for the same amount of subsidy. On the other hand, the subsidy per trip rates have not changed much, and neither has the overall number of passenger-kilometres by bus.

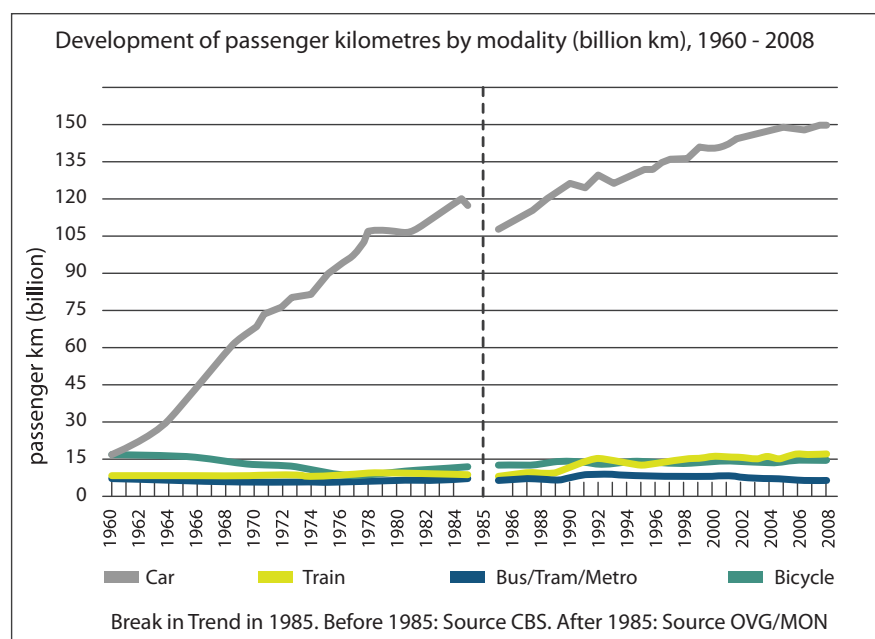
From the point of view of awarding and contracting practices many lessons have been learned and continue to be learned. On the whole, since franchising was first introduced, there has been in several areas a trend away from specifying only objectives (which was the aim of the reform) and towards specifying services (frequencies, fares and so on).

Modal shares

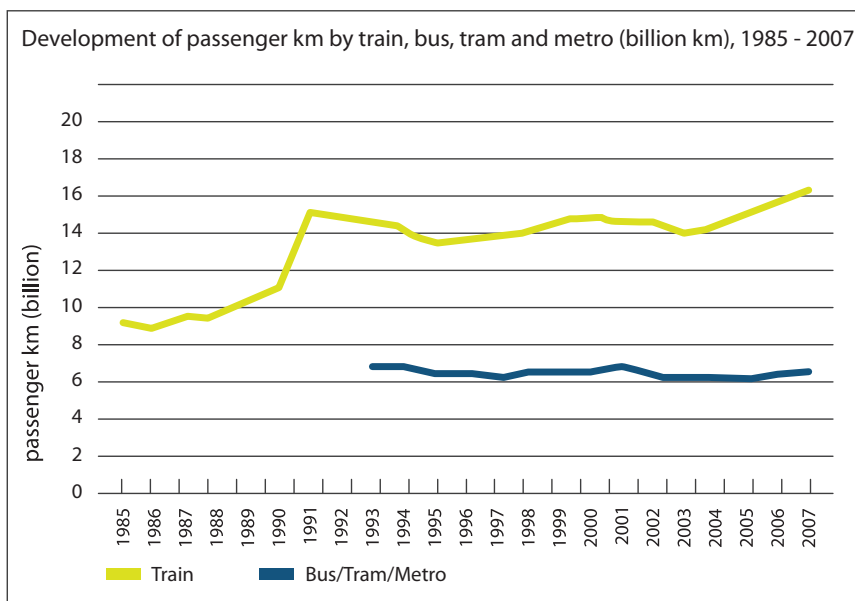
The following graphs on the next page show the evolution of mobility measured in number of passenger-km in the Netherlands over the last 50 years. The number of passenger-km is the standard measure of performance in the sector. Passenger journeys are not as widely available in the statistics. We can observe that the growth in car usage over that period is similar to that which can be seen in most European countries over the same period. By the end of this period, rail's share of total passenger-km amounted to about 8% of the total. Interestingly, and differently

from many other countries, the bike has a similar modal share (about 7%). The number of passenger-km by bus, tram and metro amounted to around 3% of the total. Measured in number of trips, the modal shares of train and bus/tram/metro together amounted to about 5%, and that of cycling to 26%. Walking represents about 19% of all trips.

A focus on the most recent period is needed to have a better view on recent evolutions in public transport usage in the Netherlands. The following graph shows the evolution of the number of passenger-km since 1985. We can clearly see the growth of ridership that took place in the railway system (light blue line), as the number of passenger-km by train doubled during the last 25 years. Note that a substantial part of this is the result of the introduction of free transport for students in the 1990's, even if that was subsequently reduced a bit as can clearly be seen in the graph. Dutch local and regional public (light blue line in the graphic on the following page) transport statistics unfortunately lack the level of detail that exists in Britain. The national statistics shown in this graph are recognised as the most trustworthy. They are based upon the sales data of the inte-



Source: KiM (2009), Mobiliteitsbalans



Source: KiM (2009), Mobiliteitsbalans

grated tariff system, which counts all public transport tickets sold in the Netherlands and calculates the corresponding amount of passenger-km on the basis of a regular survey. Here we can see that mobility by bus, tram and metro has remained very stable throughout the whole period. However, this national statistic masks local variations.

Modal share: number of trips (2007)	Netherlands
Total no. trips p.p.p.d.	2,99 (100%)
Car	1,45 (48,5%)
Train	0,06 (2,0%)
Bus/Tram/Metro	0,08 (2,7%)
Bike	0,78 (26,1%)
Walking	0,56 (18,7%)
Other	0,05 (1,7%)

Source: KiM (2009) Mobiliteitsbalans

Comparable and validated data on ridership is unfortunately not available at the level of a single concession. Data is only available at the level of the various authorities but summing data over all franchises by each authority, unfortunately making the comparison of achievements by various contract types almost impossible.

Ticket Prices

The following graph shows that public transport fares have increased by 37% between 2000 and 2009 (light blue line). The price evolution was almost identical for urban, regional and rail. This is about 20% above inflation (green line) and it is indeed also higher than the increase in car usage costs (dark blue line).

Subsidy

There is unfortunately no overview over the total amount of subsidies budgeted to urban and regional public transport for the

whole of the Netherlands as the transfers from central government to the transport authorities (brede doeluitkering, BDU) can now be used for transport operation or for investments in road, bicycle or public transport infrastructure.

2004 was the last year in which earmarked public transport operations budgets were paid to the transport authorities, in that year the amount came to € 1.08 billion/year, and this represented 63% of the total costs of production of public transport services (including vehicle investments, but excluding some investments in metros and track infrastructure). In other words: passengers pay on average about 40% of the total costs of public transport. This percentage has remained rather stable for many years although here too variations can be observed at the local level.

National railway services are profitable in the Netherlands (fast and local services on the main routes), but this is based upon infrastructure charges that do not cover all infrastructure costs but only part of the maintenance costs. Regional railway services do not in general cover their total costs of production (with the same low infrastructure charges), although the situation differs widely from route to route.

Efficiency and level of supply

One of the main aims of the Transport Act 2000 was to increase efficiency in the public transport market. This goal has certainly been achieved. In almost every concession that was tendered for the first time, the price per bus hour dropped significantly. However, prices per bus hour seem to be on the rise again. This can partly be explained because of an increased quality level (see below) and partly because for some time, operators seem to have offered unrealistically low prices per bus hour. This has led to financial problems in some cases, especially when fuel prices increased significantly around 2008.

To prevent these problems from happening again, many authorities now have incentives in the tendering process to prevent unrealistically low prices and at the same time they try to reduce the amount of risks allocated to the operator.

Quality of supply

Another main goal of the Transport Act 2000 was to increase quality and innovation in public transport. Quality has certainly improved in the last decade: vehicles became more accessible, the average age of buses decreased and real-time travel information is now being implemented at a large scale.

Still, many Dutch public transport authorities are disappointed about the lack of innovation and the fact that the innovation that did take place was often authority-driven (i.e. the operator

only implemented those innovations that were demanded by the authority). For more on this, see below ('Role of authority in service design').

Customer satisfaction

The Knowledge Platform Traffic and Transport (KpVV), which is a public body working for the transport authorities, researches yearly the satisfaction of public transport users in a so-called 'customer barometer'. This is done by means of a survey completed by approximately 80,000 travellers.

In the years 2001 and 2002, (i.e. before tendering), the concessions scored an average of 6,8; in the years 2003 – 2006 the non-tendered concessions a score of 7,0 and the tendered concessions a score of 7,3. The difference of 0,3 between the tendered and non-tendered concessions seems small, but is remarkable as the difference between the highest-scoring concession (Wadden Islands 8,0) and the worst-scoring (Friesland North 6,7, not tendered in 2006) is only 1,3. [Veeneman (2007) 'Kwaliteit neemt gestaag toe'] Tendered concessions score better and in virtually all concessions there is an upward trend in satisfaction. The 2009 survey showed a national average of 7,2.

Staff efficiency

Operational staffs provide approximately 1100 – 1150 timetable-hours per year at public transport operators in tendered regions (out of approximately 2,100 total contract hours, including vacation). The rest of the salaried time is used for logistical processes (such as breaks, turn-around time, transfer time from one bus to the other, rolling stock transfers, clock-in time, refuelling, bill payment and grid loss), training and so on.

The level of staff efficiency in non-tendered areas (that is, the three largest cities of Amsterdam, Rotterdam and The Hague) is significantly lower, however due to the threat of budget cuts and the higher efficiency of the commercial transport operators, municipal operators are more and more pressured to increase their output. The trend at the municipal operator is that the number of timetable-hours approaches 1,000.

Level of competition

Competition in the market is highly concentrated in the hands of a few major (mostly global) players: Arriva, Veolia, Transdev (owns Connexxion as well as a few smaller operators) and newcomer Qbuzz (partly owned by Dutch Railways NS).

In the first few years of competitive tendering concessions usually had three bidders: Arriva, Veolia and Connexxion. However, this changed around

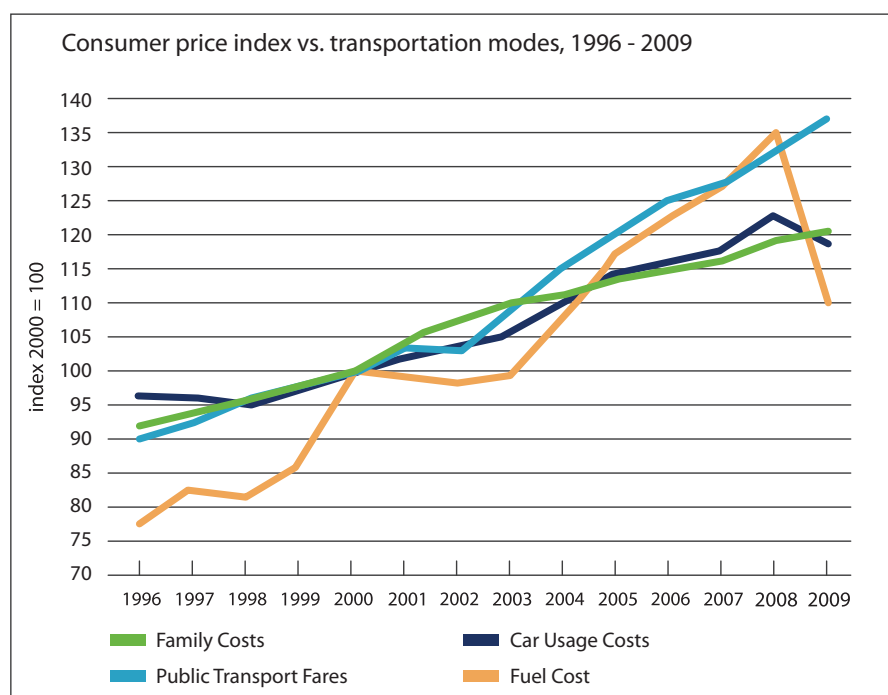
2007. Around this time all operators suffered significant losses in several concessions, partly due to a steep rise in fuel costs. Because of this, operators became more risk averse in bidding for concessions: for example, in many concessions they had (almost) no control over fares but had to carry all risks related to fuel prices. This and other features of the call for tenders (such as exaggerated quality requirements by authorities in some cases) led to lower numbers of bidders for tenders: some have attracted only one bidder, and some even none. With the most recent tenders the number of bidders seems to be on the rise again. This can partly be explained by authorities taking a somewhat more realistic approach towards risk allocation in concessions. In addition, the arrival of newcomer Qbuzz has led to an increase in competition.

The take-over of Arriva by Deutsche Bahn and the merger of Veolia and Transdev (Connexxion in the Netherlands) are likely to have further implications on the functioning of this market.

Comments on approaches and recent trends

Formats for franchises vary considerably from authority to authority. This diversity is a direct consequence of the freedoms that local transport authorities are given by the relevant legislation

The resulting wide range of experiences makes the Netherlands something of a laboratory for an instructive diversity in contracting practices. But the same diversity has also proven to be a barrier to market transparency and access as each and every call for tender tends to be different in several respects, increasing bidding costs for both incumbents and newcomers.



Source: KiM (2009), Mobiliteitsbalans

Size, length and scope of contracts

The average size of a concession has tended to increase over the years, both in the area covered and in the length of the contract. This reflects a desire to give operators more revenue risk and freedoms on service specification. Larger contract areas are also seen as more efficient and as offering opportunities to promote and develop a more effective integrated public transport offer.

There has also been a trend towards multimodal concessions, with, for instance, the successful implementation of large multimodal concessions in Limburg and in Zuid-Holland. To a large extent, the Limburg concession, and the earlier non-tendered Syntus operations served as a positive example of what could be achieved through a multimodal approach. Although there has always been a great deal of focus on connections between rail and bus in the Netherlands, integration between train and bus is taken a step further here. The entire network in these areas is reorganized in such a way that maximum synergy between bus and rail is achieved. Bus lines running parallel to rail lines were rerouted to connect to and feeder to the railway. Travel information is well-integrated; for example, bus connections are systematically announced in the trains when arriving at a station. There are also advantages on an operational level: Syntus uses 'multimodal drivers' that can both run buses and trains. In some stations connecting buses wait for trains running behind schedule. There is ample scope for the further extension of multi-modal franchising in the years to come.

Paradoxically, area franchising has also led to some service disintegration. In a number of cases as cross-border services have become more difficult to organise than in the previous operator initiated route-based regime. There are several examples of bus routes being sectioned at the border between authorities. In the case of the competitive tendering of the Syntus area, we even see that the current integrated bus-train services are being tendered separately by the two neighbouring authorities of Arnhem-Nijmegen (urban buses plus train services from Arnhem up to Doetinchem) and Gelderland (rural buses plus train services from Arnhem to Winterswijk via Doetinchem). This could result in having two train operators operating overlapping sections of the same railway branch line (Arnhem-Doetinchem-Winterswijk) where there was a successful and fully integrated bus-train service until now.

As a lesson one could say that while integration can become easier within a contract, it also tends to become more complex when several authorities are involved and/or cannot agree due to incompatible local political or administrative considerations.

Role of authority and operator in service design

Although one of the ostensive aims of the introduction of competitive tendering in the public transport sector was to increase and make better use of the service design skills of the operators, we can now see that as franchising has evolved many authorities tend to grant more limited levels of service design freedom to the operators in terms of routes, frequencies, fares, fleet specification, staff, etc. It should be stressed, though, that a variety of approaches continues to exist.

As exemplified earlier, several types of contracts are currently used: gross costs, net costs or superincentives. Four provinces have introduced gross-cost contracts with little or no service design powers for the operator. This can be seen as an unintended consequence of the reform. Two of these provinces (Groningen and Drenthe) have even set-up a common public marketing bureau to design and market their transport services. The province of Noord-Brabant, which was one of the most enthusiastic about giving service design to the operators at the beginning of the reform, has for various reasons related to repeated failures, exaggerated expectations and mismanagement of earlier competitive tendering rounds now taken overall powers on service design, even if it remains less well equipped to carry out this task fully. Very recently the province of Gelderland and that of Overijssel have announced their intention to create a common public transport bureau and have invited neighbouring authorities to join them.

Net-cost contracts are the main contracting form currently used, superincentive contracts are used in a minority of cases. Such contracts give both the cost and revenue risk to the operator, together with at least some service design freedom. They require the presence of operators that are capable of actively developing their market, using expert skills in terms of marketing (market research, service design and service promotion). This points to a chicken-and-egg problem: operators will only hire the necessary personnel and develop a market-driven organisation if there are enough of such contracts around, while authorities will only engage in such contracting if they have the feeling that operators do have the adequate resources to make it a success.

Superincentive contracts are less often used and seem more suited to areas with strong bus markets. The experience in the Amsterdam region with this type of contracts seems to indicate that the 'contract awareness' of operators varies from very active, making use of all contract features (and loopholes...), to too passive by – surprisingly perhaps – not being fully aware of the incentivised contract content. This seems to be linked to the difference between bidding teams and operational teams on the side of the operators. Furthermore, to be successful, competitive tendering should be based on a level-playing field; all or most potential bidders should have access to the same market knowledge. The experience shows that this is not always the case and this has led the authority in Amsterdam to reconsider its tendering strategy towards asking 'less' creativity from the bidders at the time of bidding, while maintaining the service design freedom given to the operators during the contract.

Contract execution: enforcement, monitoring and improvement

Various enforcement features are used: financial incentives, risk allocation, various performance regimes, etc. For the time being, and perhaps surprisingly, it appears that contract monitoring has not always been properly organised, especially in first tendering rounds. The lack of good statistics mentioned above is perhaps also symptomatic of this state of affairs. Recent contracts seem to pay more attention to this.

A fundamental issue with network tendering is the questionable ability of operators to make economics forecasts over the length

of a contract period (now up to 8 years). One of the related evolutions is the current tendency to simplify the awarding procedure (requesting less 'service design' from the operators at that stage) while maintaining service design freedom for the operator during the contract period. This essentially simplifies the task of bid evaluation, but it does not solve all challenges linked to the awarding criteria and bidders having to forecast demand for the whole contract period. Cost forecasting for a period of 8 years seems feasible but this is more questionable for the revenue side.

A trend and possible solution to this problem and to the operator-authority frustration mentioned earlier is to increase collaboration between authorities and operators in terms of service design. Here we see that a few authorities are shifting towards a hybrid model, where authority and operator design the public transport product together in so-called 'development teams'. For example, the provinces of Gelderland (net-cost contract) and Overijssel (gross-cost contract) are currently implementing concessions where such a development team initiates and decides on new transport plans, while the development of the plans itself is mostly carried out by the operator. It is unfortunately difficult to judge the performance of this contractual feature yet as it has only been initiated by some of the more recent contracts such that its adequacy remains to be proven in practice.

The challenge of learning

The usage of gross-cost contracts and the observed tendencies leading to a reduction of the freedom of the operators both at the tendering stage and during contract execution, are mostly the results of earlier disappointments by authorities with operators' performances. Authorities sometimes expect too much from contracted private operators, projecting their own social aims on what they expect should be the motivation of the operators. But operators are essentially driven by a profit motive, while authorities are driven by more varied social and political objectives. In a tendered temporary monopoly regime, it is the contract that is supposed to transform the profit motive of the operator into socially-desired actions, as formulated by the authority. But ineffective, ill-calibrated, incentives have often led to rather passive operators, which in turn led to frustration on the authorities' side. And ill-designed bidding and awarding procedures led to exaggerated bidding by operators, which in turn led to problems during contract execution.

Faced with this, the natural reflex of several public transport authorities was to increase the level of specification of the next tendering procedure and the next contract, in an attempt to solve the perceived lack of performance by the operator. This obviously bears a danger of ossification, limiting even further the design freedom of the operator and the usage that can be made of his professional knowledge. As his knowledge is not used, the operator then sheds its marketing staff, reinforcing the perception that he is not able to fully carry out the marketing functions. A vicious circle towards full service design by the tendering authority can easily be the result of this phenomenon, exactly at the opposite of one of the aims of the introduction of network tendering which was to stimulate innovation through operator innovation.

The many successes, but also the mistakes and disappointments led to learning. With so many different approaches being tried in the Netherlands there is considerable potential for further knowledge sharing. This is why transport authorities are now cooperating in a project that integrates the experience of both authorities and operators (and consultants). This project will now bring qualitative improvements and some standardisation in the public transport tendering documents, which should in turn lead to better public transport products.

Beter Bestek ('Better Terms of Reference')

This project, organized by the Knowledge Platform for Traffic and Transport (KpVV), aimed at increasing the knowledge and skills of regional public transport authorities regarding public transport tendering. This included the development of a 'Toolbox' that authorities can use when tendering public transport in their areas. The Toolbox includes a 'Route Map' for a successful tendering procedure, descriptions of experiences from several authorities with tendering and suggestions for actual texts to be used in a Terms of Reference. In order to create this toolbox, several smaller and larger 'in-depth sessions' with authorities, operators and consultants were organized in which experiences about a certain topic were shared between these parties.

The Toolbox will receive a yearly update with the latest tendering experiences



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