

of vehicles that will use the A13 through Rotterdam (Overschie) will remain roughly the same as it is now. Congestion and quality of life issues are set to persist for decades in this Dutch region.

MULTIMODALITY

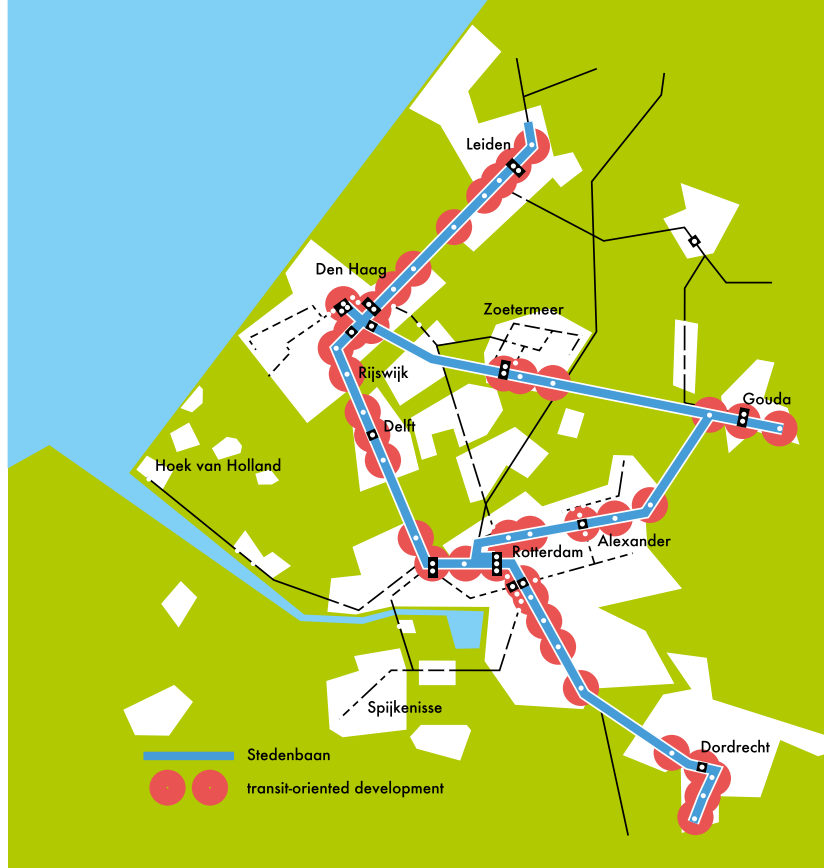
If we want to take sustainability seriously in this case, we should improve the (rail) transit systems in the area as well. In fact, we must expand the scope of infrastructure projects to the network level, where it is evident besides the two motorways between Rotterdam and The Hague, there is also a railway connection, a light rail connection (RandstadRail) and even a new provincial road, the N470. The questions to ask then are how this combined package of connections can serve the travel demand between the two urban regions, and how this demand can be managed. How much particulate matter do we permit to be emitted? What is the optimal percentage modal share of the car? How can we steer travel behaviour towards sustainable modes? Where do we build new residential areas or science parks?

STEDENBAAN

Despite a history of land use and spatial planning stretching back more than half a century, the Netherlands still lacks such an integrated approach. The provincial authority, the Province of Zuid-Holland, would probably deny such a shortcoming in its policies and refer to a project like Stedenbaan, initiated by the South Wing Administrative Platform (Platform Zuidvleugel, a partnership of local and regional authorities). The provincial council is a key driver in this platform, which also includes the cities of Rotterdam and The Hague, the urban regions of Leiden, The Hague, Rotterdam, Dordrecht and Gouda.

Back in 2003 the Platform expected that work on two strategic rail projects in the province would be completed in four years: the Betuweroute, a new freight line between the port of Rotterdam and the German hinterland, and the HSL-Zuid, a new High Speed Rail line between Amsterdam Airport and Antwerp Central. The Platform argued that the completion of the two rail lines would bring about major changes in the overall rail network in Zuid-Holland and alleviate congestion on existing lines. Freight trains to Germany and Thalys high speed trains to France would no longer clog the rail lines between Leiden, The Hague, Rotterdam, Dordrecht and Gouda, freeing up capacity for more frequent local rail services. A new system, Stedenbaan, would take advantage of this and inject some much needed innovation into public transport in the province.

Atelier Zuidvleugel (a provincial think-tank) conducted an in-depth study into the spatial potential of the new and existing stops and stations on the Stedenbaan line. In September 2007 it concluded that at least 40,000 housing units could be built within a 1200 metre radius of the existing and new stations and stops.¹ Such a massive transit-oriented development would provide a welcome boost for the new service. But at the time the report was delivered it was already clear that the introduction of a new light rail service seemed as far away as back in 2003.



Until now the Stedenbaan concept limited its focus to the station areas along the main rail corridors in the province Zuid-Holland.

The Stedenbaan concept envisages light rail services on three existing railway lines

Between 2003 and 2007 two main issues emerged. The national rail carrier, Nederlandse Spoorwegen (NS), gave a lukewarm response to the Stedenbaan concept, and additional capacity did not become available as anticipated.

CARRIER

The NS was privatised a few years ago and many of the rail services NS on branch lines have been franchised out. New carriers have emerged and most of the previously ailing lines have been revitalised. As a result of better services and improved bus/rail connections these branch lines now show significant increases in the number of passengers. The NS still holds the concession for the national main lines, where it does not have to compete with other carriers. This situation will continue until 2015, when the concession comes up for review. As all the Stedenbaan services use the main line network, the NS will hold a key position in the development of the Stedenbaan concept for almost another decade.

The NS will treat the Stedenbaan line like any other main line in the country. The existing local trains will be replaced by new Sprinter rolling stock. These trains will operate according to a new schedule presented in early 2006. Although it is the most far-reaching overhaul of the national train timetable since the 1960s, the service level of the new Sprinter trains will not be much different from the services currently offered by the local trains in the province. The NS promised to look into the possibility of increasing the number of services between Leiden and Dordrecht by two per hour, raising the frequency from four to six trains per hour. However, any additional services will only come into effect when there is additional demand; the services will not be used to create demand.

CAPACITY

The Betuweroute and HSL-Zuid infrastructure were almost entirely completed in 2007. Commercial exploitation of the Betuweroute began in December 2007, but shifting rail freight to the Betuweroute has proved to be a relatively slow process. For the time being there seems to be no decline in the number of freight trains on existing network, while overall freight transport by rail is growing steadily by about 6–7% a year. There is a real possibility, therefore, that the Betuweroute might not relieve congestion on the other rail lines after all, but provide the necessary capacity for further growth. Complications with safety systems and the delivery of rolling stock have pushed the start of the high speed train services on the HSL-Zuid back to 2009. The NS plans to use the slots that will then become available on the network to increase the number of Intercity services, not the number of Sprinter services. So, although two new rail lines have been added to the network, there is no additional capacity for a Stedenbaan light rail service.

REASSESSMENT

With hindsight, it was a mistake to expect that 2007 would become a key turning point. We should acknowledge this and carefully assess the Stedenbaan concept to see how it could match the available rail infrastructure in the province of Zuid-Holland as it develops during the coming decades. Is a change of strategy possible, or even necessary?

The Stedenbaan concept envisages light rail services on three existing railway lines: Gouda-The Hague, Gouda-Rotterdam and Leiden-The Hague-Delft-Rotterdam-Dordrecht (the 'Old Line'). There is a fundamental difference between the first two lines and the third line. During the last twenty years the Old Line has been expanded from two to four tracks over almost its entire length. The additional two lines are regular double tracks, which should make it relatively easy to separate local train services and intercity/freight services on the Old Line. A new light rail service on the Oude Lijn is therefore feasible. On the other two lines it is more problematic. The Stedenbaan concept must acknowledge this fundamental difference.

There is another key difference between the Old Line and the two Gouda lines. The two lines from Gouda run parallel to two major motorways: the A12 and the A20. Building housing along these lines might not be considered sustainable because the inhabitants would be exposed to noise and air pollution from the two motorways. So, as the Gouda lines face a double problem, we might want to focus on the Old Line for the time being. We should note, though, that excluding the Gouda lines reduces the number of Stedenbaan stations, and thus the potential for housing development. What we need is a model that allows the network to grow and delivers more station areas to develop. What would this look like?

KARLSRUHE MODEL

The Karlsruhe model could offer a way out for the region. Karlsruhe has delivered an alternative model for the development for regional rail networks. Instead of integrating services within a national rail network, it integrates the regional transport services into the urban rail network. This is a model that has to be adapted to the specifics of each region for the simple reason that the urban network differs from place to place. The urban network in the city of Rotterdam is based on a metro system; The network in The Hague is based on a light rail system. From 2009 on these networks will be interconnected by a concept called RandstadRail. From that point on we could explore the potential of integrating the Old Line into the RandstadRail network. Such an option could be explored and prepared in advance of the review of the NS concession on the core network (2015). By this time, the construction of a new rail tunnel in Delft will be well underway as part of the construction works for doubling the last section of the Old Line.

There is, of course, one major difference between the Stedenbaan project and RandstadRail. Stedenbaan integrates transport planning with spatial planning. It is based on the introduction of a new transit system and on the transit-oriented development of its station areas. RandstadRail is just a transport project. Or is it?

RANDSTADRAIL/VINEX

We should ask ourselves if the American concept of transit-oriented development differs very much from everyday Dutch urban planning. New housing districts in the Netherlands are often located near railway stations already. Let us take a careful look at the passenger forecast for the Rotterdam version of the RandstadRail, which links the former Hofplein railway line with the Rotterdam metro.

In 2006 about 7000 passengers used the Sprinter service that ran on the Hofpleinlijn. This number is expected to grow by 27,000 to 35,000 passengers a day when the Rotterdam RandstadRail takes over in 2009. Opening up new stations will generate 10,000 of these passengers from the many new housing developments along the line. These are part of the ongoing national house building programme in designated urban extensions, known as 'VINEX'. About 7000 new →



RandstadRail Rotterdam. (illustration: Bombardier)

passengers will use the new Bus Rapid Transit that connects the RandstadRail with the new town of Zoetermeer. A further 6000 new passengers will be attracted by the fact that the RandstadRail will bring them directly to Rotterdam Central Station and into Rotterdam city centre without the need to transfer, and 3000 new passengers will result from ‘autonomous growth’. About 1000 passengers currently use the Old Line and switch to the Hofpleinlijn. In fact, RandstadRail seems to be closely tied into the urban developments in the surrounding areas. It was never presented as such, but the combination between RandstadRail and VINEX is very much like the concept for Stedenbaan.

There is just one major difference between the RandstadRail/VINEX development and the Stedenbaan concept. Stedenbaan depends on the Sprinter services offered by the NS. The NS takes its passengers as far as the central stations, but does not take them into the city centre where most of the leisure, retail and employment activities are located. RandstadRail does not make this mistake. It brings its passengers to where they need to be. RandstadRail can do that because it uses the available (underground) infrastructure of the urban networks. The passengers projections show that this is a promising concept. The amount of passengers on the Hofplein line is expected to increase fivefold from 7000 to 35,000 passengers.

STEDENBAAN + RANDSTADRAIL/VINEX

There is much to gain by integrating the Stedenbaan and RandstadRail concepts. It will provide many more seamless connections into the main centres in Zuid-Holland. Combining the two concepts doubles the number of station areas and as such will offer significant more possibilities for urban development based on sustainable mobility. In Rotterdam, two existing metro tunnels can bring Stedenbaan right into the city. In The Hague the integration of Stedenbaan and RandstadRail may require a second city tunnel. The light rail tunnel in The Hague is only equipped to take the city’s low-floor vehicles

and cannot cope with the Rotterdam high-floor metro vehicles. This additional tunnel does not have to be long, but it needs to provide what has been missing for decades: a rapid link between the two main stations (The Hague HS and The Hague Central) and a rapid link between The Hague HS station and the city centre. Three underground stations could deliver this: The Hague HS, Spui and The Hague Central.

Critics often point to the fact that The Hague is notoriously ineffective in claiming key investments for rail-based urban transport, compared with Amsterdam or Rotterdam. It lacks the stubborn long-term visions of its close neighbours. This may be true, but the integration of Stedenbaan and RandstadRail is a project with an impact that goes far beyond The Hague itself. It allows the transport services in the southern part of the province to connect with those in the northern part. The Provincial Council of Zuid-Holland recently ordered the construction of a light rail connection in the city centre of Leiden. It should do so in The Hague if necessary.

NEW MILESTONE AHEAD

The ambitions laid down by the Province of Zuid-Holland in the Stedenbaan project are sound and worth pursuing, but the 2007 deadline clearly came too soon. A new deadline is emerging: the NS concession on the Old Line is up for review in 2015. Zuid-Holland should work jointly with The Hague and Rotterdam city-regions to exert influence to get the best rail carrier they can.

Integration of the RandstadRail network and the Old Line, both in The Hague and Rotterdam city-regions, should be prepared between now and 2015. An overall vision needs to be delivered for a smart mix of modalities and infrastructures that can provide sustainable mobility between the city-regions of Rotterdam and The Hague. Such a vision cannot do without proper travel demand management. The Province of Zuid-Holland, together with the Rotterdam and The Hague city-regions, need to provide a form of strategic territorial governance that delivers integration of the urban and regional transport networks, additional infrastructure investments and sound travel demand management as one integrated package, guided by a true vision on how to connect the cities. They have seven years left to do so before the next milestone in 2015.

Notes

1 In its report Ruimte en Lijn, The Hague, 2007

