2015 Netherlands Cycle Study Tour

Go-Dutch





FOREWARD

PETER BOURKE GENERAL MANAGER - CYCLING PROMOTION FUND

The CPF through its relationship with the Kingdom of the Netherlands delivered the 2014 and 2015 study tours to the Netherlands.

The aim of the Netherlands Influentials study tours are to increase awareness and knowledge of possibilities, create linkages and networks of leaders, and remove barriers to implementing a sustainable transport cycling culture by immersion in the world's best cycling nation.

The program not only achieved these aims in 2015, but also created a huge level of excitement in the small but influential group of participants from across Australia about the possibilities and has resulted in a desire to create change.

During the program of workshops, presentations, site visits, dinners and meetings across the country some key pre-requisites needed to create change became clear:

- Australia has some outstanding planners and designers who have the skills to design great mobility—they just need permission to do it
- Solutions take leadership—we struggle in Australia to find leaders willing to make the critical decisions necessary to improve mobility for all members of the community,
- Networking is critical—the relationships created through immersing of a group of decision makers in this environment are an unparalleled opportunity to create change.

It is through the leadership from people such as the participants on this study tour that we the transport system we need for a liveable, sustainable community can be realised, as well as the potential economic growth.

We have the skills in this country we just need to give people the permission and support they need to achieve it.

CPF'S STRATEGIC OBJECTIVES



 Increase investment in bicycle infrastructure, programs and marketing



4. Embed the CPF as Australia's leading influencer on bicycling issues federally.

1. Bike riding perceived by policy makers as a solution to current and future challenges



3. Greater community acceptance of bicycling as a legitimate transport option



INFLUENTIALS TOUR PARTICIPANTS

- The Hon Luke Donnellan, Vic Minister for Roads, Road Safety and Ports
- Jackie Fristacky Councillor, City of Yarra
- Daniel Hoare Chief of Staff to the Vic Minister for Roads, Road Safety and Ports
- John Merritt CEO, Vicroads
- Michael Nieuwesteeg Manager Research Road Safety, Transport Accident Commission
- Edward Rose Traffic Management Knowledge Coordinator, Main Roads WA
- Amanda Stevens Mayor, City of Port Phillip
- Jane Waldock Assistant Director Planning and Placemaking, City of Yarra
- Peter Bourke General Manager, Bicycle Industries Australia
- Stephen Hodge Government Relations Manager, Cycling Promotion Fund



OPPORTUNITY FOR CHANGE

STEPHEN HODGE GOVERNMENT RELATIONS MANAGER – CYCLING PROMOTION FUND

The Australian bicycle industry's investment over the last two decades in the Cycling Promotion Fund (CPF) has given cycling a voice in the national arena. It has cemented cycling's place in key national debates in areas as diverse as transport congestion, quality of our built environments and liveability, and of course in the emerging crisis in chronic diseases related to our sedentary lifestyle.

While we focus on four strategic objectives—see page on our objectives—knowing where real change is created is not an exact science. We have, however, believed for some time that taking senior decision makers to countries where concerted political will and investment has resulted in high rates of cycling was an important opportunity.

Sometimes just taking decision makers to experience the very positive reality of a bikefriendly environment for themselves is all it takes for the 'penny to drop'. This is what we are achieving in our Netherlands study tours.

The successful 2014 and 2015 tours have opened up additional opportunities for us to provide national and state decision makers with similar experiences.

It has added further to our reputation as a professional and credible voice for cycling nationally and complements other key engagements such as the Parliamentary Friendship Group for Better Cities, Parliamentary Cycling Group—Riders on the Hill, Australian Bicycling Achievement Awards and our close and collegiate relationships with all sides of politics.

The bicycle industry members of the CPF deserve enormous credit for their commitment and foresight with this vital investment in the future of their industry.

We believe that the broad range of activities undertaken by the CPF and reputation within decision making circles reflect very positively on the members' vision and commitment and we look forward to welcoming even more of the industry to be a part of this in the future.

Our work for the bicycle industry is something we are very proud of and we look forward to more successes in the future.

WHERE WE WENT



Figure 1: Cities visited in the 2015 study tour

- Amsterdam
- Eindhoven
- Nijmegen City Region
- Rotterdam
- The Hague
- Utrecht

WHO WE SAW

• The delegation travelled by – bicycle, ferry, bus, foot, taxi and train



• 21 presentations



• 28 Transport experts, consultants and academics

• 3 Mayors and Alderman



- 7 infrastructure bike tours
- Consulate General reception

WHY THE NETHERLANDS?

So why did we visit the Netherlands to study cycling?

The statement 'we are not Holland and never will be' is not an excuse, they were once a car-centric country too— although it is true that even when the transport system focused on cars in the 70's, cycle mode share was never lower than 8-10%.

Of course is it a vastly different environment in some ways, but there are some similarities and if you want to understand the contribution bicycling can make, it makes sense to understand what the best in the World do.



Figure 2: Bicycle mode share in European Countries

WHY THE NETHERLANDS?

Bike mode share

Figure 2 shows the per cent mode share for cycling in major European countries. Australia doesn't even rate on this graph, at between 1 and 2% of all trips by bike. Bicycle use in Dutch cities is anything from 22% in Rotterdam up to 38% of all trips in Amsterdam and 50% in Utrecht. Walking share is a similar percentage to cycling.

Cars are still the main mode for inter-town travel, but overall bike trips are not far behind, see Figure 3.



Figure 3: Transport mode shares in the Netherlands

Safety and convenience

The Netherlands has invested in transport infrastructure that is 'fit for purpose' and ensured that the appropriate mode is safest and most convenient for each trip. Car ownership is relatively high in the country, but walking and cycling is best for the short trips that make up around half of all daily trips. This is reflected in the mode share.

Safety is a major winner in this transport system with much safer, quieter residential streets and urban centres than Australians are used to.

VISION FOR AUSTRALIA

Bicycle riding is a normal part of life and a common mobility option for the Dutch in the transport environment — "time-efficient, safe and comfortable."

The Dutch have developed a transport system that is based on a hierarchy that has at its core a philosophy of 'fit for purpose', providing a safe and comfortable space that makes living and travelling easier. While the Australian solution may well look different to the Netherlands, this concept is nevertheless valid in this country.

How?

- Improve the mobility efficiency and opportunities for all Australians through an integrated transport system that enhances choice and healthy active options. Greater investment in direct, safe and connected bicycle infrastructure
- Implementation of national bicycle education framework
- Implementation of a benefit cost ration assessment framework that includes wider benefits for all transport projects,
- Implementation of policies and road rules that increase safety for vulnerable road users.

This will only be achieved when leaders choose to prioritise the most effective mobility options for entire Transport network.



KEY HIGHLIGHTS IN FOCUS

The tour revealed a number of interesting findings and observations that have been summarised below.

The Netherlands Embrace of Cycling Did Not Happen Overnight

The transformation of the Netherlands from a cycling city to a car city and then back to a more balanced transport city was not an overnight success. Like many cities around the world the Netherlands embraced the car after World War Two, thereby moving from a high of 85% cycling mode share to a low of 25% by the mid-1970s.

By this stage, historic buildings were being demolished to make way for freeways through city centres and the annual death toll from road crashes (all modes) had hit more than 3,000, including 400 children. Cyclists made up 17% of the fatalities and 32% of those injured in crashes.



The culmination of these factors, along with significant spikes in fuel prices and fuel shortages, created a ground swell of protest that resulted in the development of the Peoples Transport Plan 1976 to 1980. The Plan included funding for cycling, two demonstration projects (the Hague and Tilburg) and extensive before and after studies. Following the experience of the two demonstrations projects, a further trial was undertaken in Delft, based on a network approach.

As with the previous projects, a before study was included as was a short term after study, but a long term after study was also included. Key features in these projects were bidirection separated bike paths on one side of the road, traffic calming, priority for cyclists at most intersections and coloured surface treatments for cycling facilities.

These results fed into the 1980 and 1989 National Transport Strategies. The 1989 Strategy contained the goal to reduce car use growth and a Bicycle Master Plan. Subsequent Plans have built upon the early plans and have continued to evolve, with the latest being released in 2012.

Urban, Economic and Environmental Planning

The Dutch place a very high priority on integrated planning across many areas. This has resulted in strict planning measures being in place, such as growth boundaries and air pollution requirements. For many cities the business as usual approach has prevented future growth as the pollution levels would have been exceeded if the development proceeded. This has resulted in developments being reworked to reduce car dependency to achieve a more sustainable outcome.

Within the inner core of larger cities, road capacity has been reduced to make it harder for people to drive in congested areas. This has been achieved by removing lanes, converting two lane streets to one lane/one way and reducing the continuous lengths of streets. This approach has been effective and the residents appear to have adapted to the changes. High density has greatly assisted in this cause as it ensures that most trips are fairly short and achievable by other modes such as cycling, walking and public transport.

Separated Bike Paths and Sealed Shoulders

The planning for cycling in the Netherlands is based around a road hierarchy of expressways (freeways), arterial roads and local roads. On freeways and arterial roads the cycling facilities are always separated from the motorised traffic to maximise safety and encourage cycling.

On lower speed arterial roads there is a mix of approaches. Up until recent years the approach for low speed arterial roads (those within CBDs and central city centres) was to separate cyclists with the provision of a separated bike path.

More recent road reconstructions and modifications in a number of cities have resulted in the separated facility being removed and replaced with a sealed shoulder, mostly in the order of 1.5 to 1.8m wide.

While this appears to be a step backwards in safety there are other factors at play: the move to lower speed limits does reduce the risk of fatal and serious injuries with non-segregated facilities; pedestrian walkways needed to accommodate greater numbers; and rubbish trucks had difficulty accessing bins with the gap caused by the segregated paths.





Separated path example

Sealed shoulder example



Local road example

On local roads (30 and 50km/h roads) the main focus is on the car being a guest and cyclists having priority. There are a variety of approaches including sealed shoulders, shared space and narrow roads. The approach taken appears to depend on the funding available, the width of the existing road and volumes on the road.

For the sealed shoulder approach there is a growing movement towards a 1.8m shoulder to provide a greater level of separation and safety between cyclists and motorised traffic.

Where the space is shared the main focus is to keep the width of the road down with lane widths for motorised traffic generally being 2.5m where two lanes are provided and down to 2.5m or 3m on roads that are mostly operating as laneways servicing driveways.

Speed Limits on Local Roads

Speed limits on the local roads vary between 30km/h and 50km/h. Within the inner core of the cities, travelling beyond 30km/h is largely not possible due to the very narrow streets of the medieval towns and the congestion in the more modern cities - this has largely been achieved through travel demand measures with limited lanes and parking available.

Beyond the inner core the speed limit debate is alive and well particularly in relation to reducing significant areas down to 30km/h and whether a 30km/h limit is appropriate compared to a 50km/h limit. From riding through a number of the post war cities, the road widths on some roads were clearly more suited to a 50km/h limit. That being said if treatments were installed, options would be there for reductions to 30km/h.

Bike Parking

With significant bike use, comes the problem of where to park all of the bikes at the end destination. Historically, this has been accommodated by using public space such as verges, canal railings and public squares. With population growth, this situation has become untenable and more provision has been made for off-street parking.

A significant focus has been placed on providing underground bike parking at rail stations based on the principles of: right spot, right size and customer focus. The City of Utrecht is a leader in this area and has 4,200 underground bays at the central train station (2014), which was developed in detail before construction using micro simulation to ensure that peak periods were functional.

These types of facilities cost between 3,000 and 8,000 Euro (AUD\$4000-11,5000) per bike bay to construct, which is still many times cheaper than an equivalent bay for cars in a underground or multi storey facility. Parking for the first 24 hours is free and the following 24 hours is 1.25 Euros (AUD \$1.80). They are currently expanding the underground parking to 12,500 (by 2016) and have plans for 32,000 bays by 2035.

Even with the increase in underground parking there are very significant numbers of bikes being parked in public spaces. This appears to be largely a cultural attachment to past practices and the convenience of parking as close as possible to the end destination. In Utrecht, they have recently taken a different approach by renting a shop that had been empty for a few years and created an in-shop bike parking facility that is free to use and is



open from 6am to 4am.

Bike theft is an issue that is assisting in driving more cyclists to park at the underground stations, which are guarded. Bike theft peaked at 1m bikes per year, but has now dropped to 0.5m per year. While guarded facilities have assisted in dropping the theft rate other initiatives such as programs to address homelessness and assistance for people with drug addictions have also helped.

Car Parking

Car parking supply is carefully managed in each of the cities that were visited. All of the cities restrict the amount of parking supply within the central city areas to reduce the demand for car use and many residents/workers do not bring a car to work as it is simply too difficult and expensive to find a car parking space.

This in turn has allowed for most of the arterial roads within the ring road systems to be kept at one lane in each direction with widenings at intersections for turning lanes. Some roads have parallel parking bays, but not all.

Bikes and Train Stations

With cycling being the mode choice for short trips, it is logical to link cycling with public transport, particularly when there is a very well connected regional passenger rail system being in place.

This is demonstrated by the fact that 42% of train



passengers arrive by bike and 14% continue their journey by bike.

This is partly well facilitated by Dutch Railways providing 100 guarded bike parking areas with capacities that vary from 500 to 5,000. In addition, small stations have bike lockers and bike racks. A number of users have one bike parked at the origin station and another at the destination for a fully connected journey. Bikes are not permitted on trains due to high passenger numbers during peak periods, but are allowed during the off peak for 6 Euros (AUD\$8) and fold up bikes are allowed and are free at all times.

Secure parking at the rail stations is free for the first 24 hours and a fee of 1.25 Euro (AUD\$1.80) is charged for each day after that. They are looking at reducing the fee for the subsequent days to 0.5 to 0.75 Euros a day to accommodate part time workers and students.

Abandoned bikes at stations are an issue and are known as orphan bikes. These bikes are estimated to take up 10-20% of bike parking bays and automatic sensors have now been fitted to reduce the problem.

In 2007, Dutch Railways took over a pilot bike rental scheme that operates within the bike parking areas at train stations. The scheme had 34,000 members in 2007 and this has increased to 160,000 current members. Membership is 10 Euro (AUD\$15) a year and the daily cost to use a bike is 3.15 Euro a day (AUD\$4.50), with billings being monthly via direct debit. At present there are 120 guarded and 180 non-guarded rental locations with a total of more than 8,000 bikes. Excluding the upfront capital costs, the scheme is revenue neutral with vandalism and theft not being a big issue. The customer satisfaction rate is a high 7-8.

Surveys of public transport customers (30,000 annually) have revealed that the perceived wait time at the initial boarding is 2.5 times that of real time and when transferring it is 4 times real time. The scheme goes a long way towards reducing waiting times for connecting modes such as buses and light rail, as the connection is made by bike instead. This has the added bonus of reducing the high demands on the bus and light rail services during peak periods in the busier areas.

Schools

Schools have been provided with very good cycling facilities in terms of bike paths, bike parking and 30km/h school zones in the immediate vicinity of the schools. There are no school buses, some roads are blocked by pop up bollards during drop off and pick up periods and close to half of the students arrive by bike.

Bike education is a compulsory part of life in the school system. The education starts at the age of four with many kids being competent cyclists before this age. A number of practical circuits have been built that facilitate learnings away from live traffic to assist in developing awareness and skills in a safe environment. The education continues through primary school and culminates in a written and practical test in the year before they move to high school.

This early approach to embrace cycling with guided education is a key component of setting the kids up for a life-long attachment to cycling, which is aided by travel demand measures that limit car use. The education process has other benefits that include a greater appreciation of safety issues for the other modes of transport.



Industrial Areas

Industrial areas are well served with off road cycling paths. As with Australia, industrial areas are difficult to service with public transport due to the early start times and the large blocks. The off road facilities allow for cyclists to get to and from the work place in a safe manner without significant interaction with heavy vehicles.



Ebikes

Electric bikes have started to increase in numbers with 1.3m being sold in The Netherlands so far. **Current sales equate to half the value of all bikes sold per year.** This has enabled more seniors to ride and, for others, longer distances are now possible. E-charging points are being provided to allow cyclists to recharge their bikes for the return trip. On the negative side, the increased speed availability that comes with high powered e-bikes and scooters is creating safety issues in congested inner city areas as many cyclists do not slow down. This is being further exacerbated by the arrival of new, more powerful bikes, including a recent introduction to the market that has 500W of power and a top speed of 45km/h.

Sharing Cycling Knowledge

The Dutch have established an organisation known as the Dutch Cycling Embassy that is a public private partnership. The Embassy has a focus on sharing knowledge and expertise, economic diplomacy/export promotion, business promotion and alliances with civil organisations. Initially set up with private funding for three years, this has now been complemented with federal government funding for another three years.

The Embassy has three staff and is facilitating work in 38 countries. Some of the key areas in which they work are; education, culture, how to organise change and formulation of

ambitions beyond simply the number of cycling path kilometres. Future cycling study tours can be arranged through the Embassy on a cost recovery model.

Data Collection and Analysis

Data collection is a valuable part of the transport planning process to track trends and assist in planning for the future. Across The Netherlands, 50,000 travel surveys are undertaken each year.

In addition, Dutch Railways undertake another 30,000 travel surveys for stations each year. These surveys provide a great array of information across all modes and feed into strategic and operational planning. However, the fine grain travel data for cycling is still a work in progress. Further work is being undertaken in this area in 2015, with one city seeking a grant to fuse Strava data (commercial personal phone application GPS tracking) with GPS data.

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