

# I European Conference on Sustainable Mobility at Universities

**Universitat Autònoma de  
Barcelona**

**UAB**

Universitat Autònoma  
de Barcelona

**8, 9, 10 March 2017**

**R. Marqués**

**The importance  
of bicycle  
and  
the role of universities**



The conference is in the  
Framework of the European  
Project about sustainable  
Mobility: U-MOB LIFE.

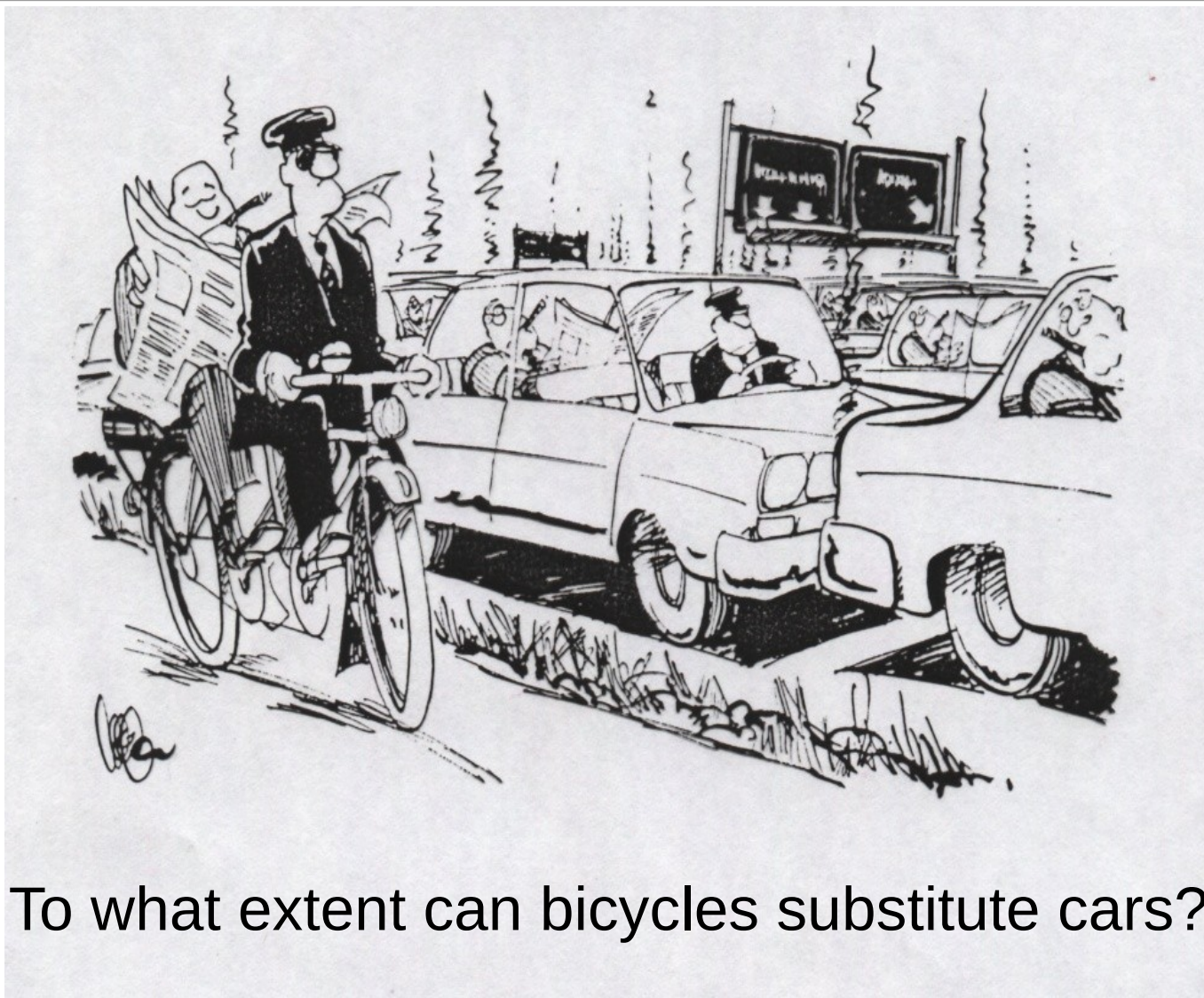


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Most people will agree that  
it would be desirable to replace  
car mobility by bicycle mobility

But...





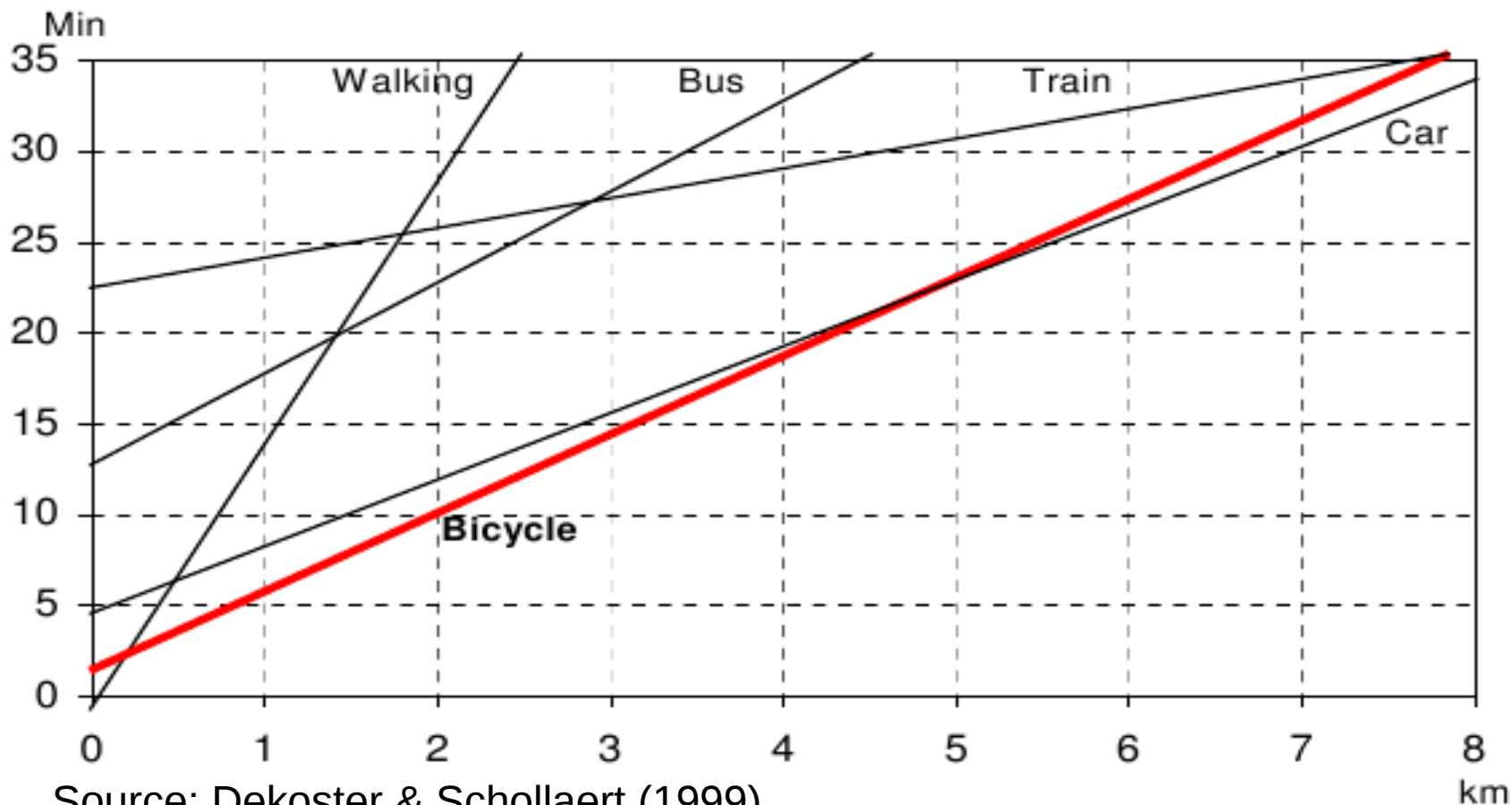
## To what extent can bicycles substitute cars?

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**Figure 1.4. Comparative table of journey speeds in the urban environment**

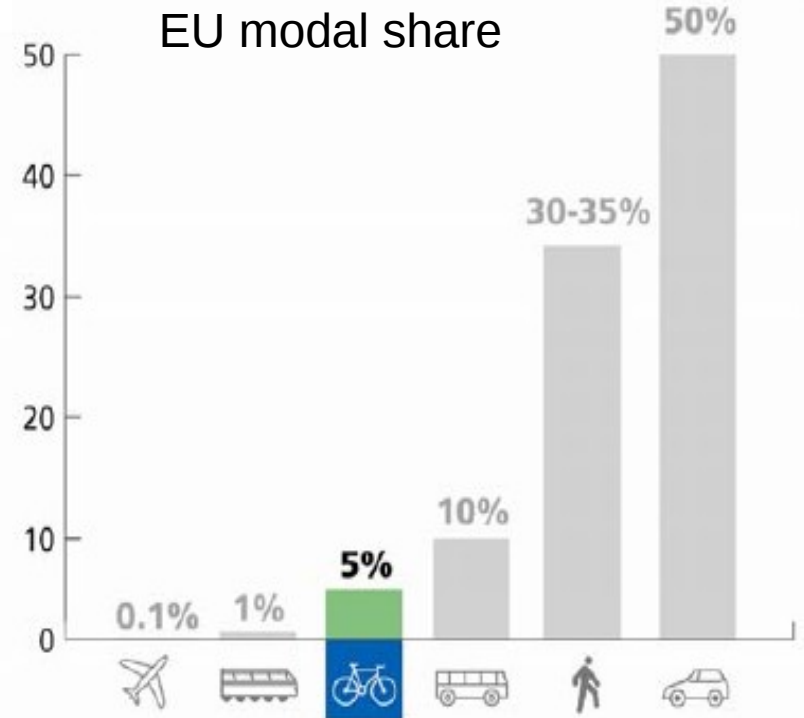
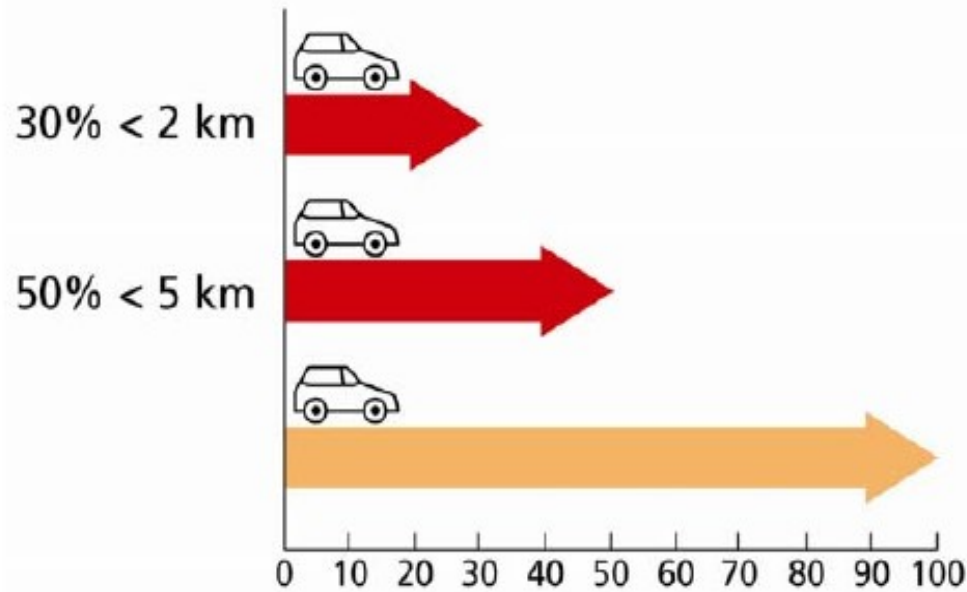


Source: Dekoster & Schollaert (1999)



Figure 1.5. Frequent Car Use

**15 EU:**



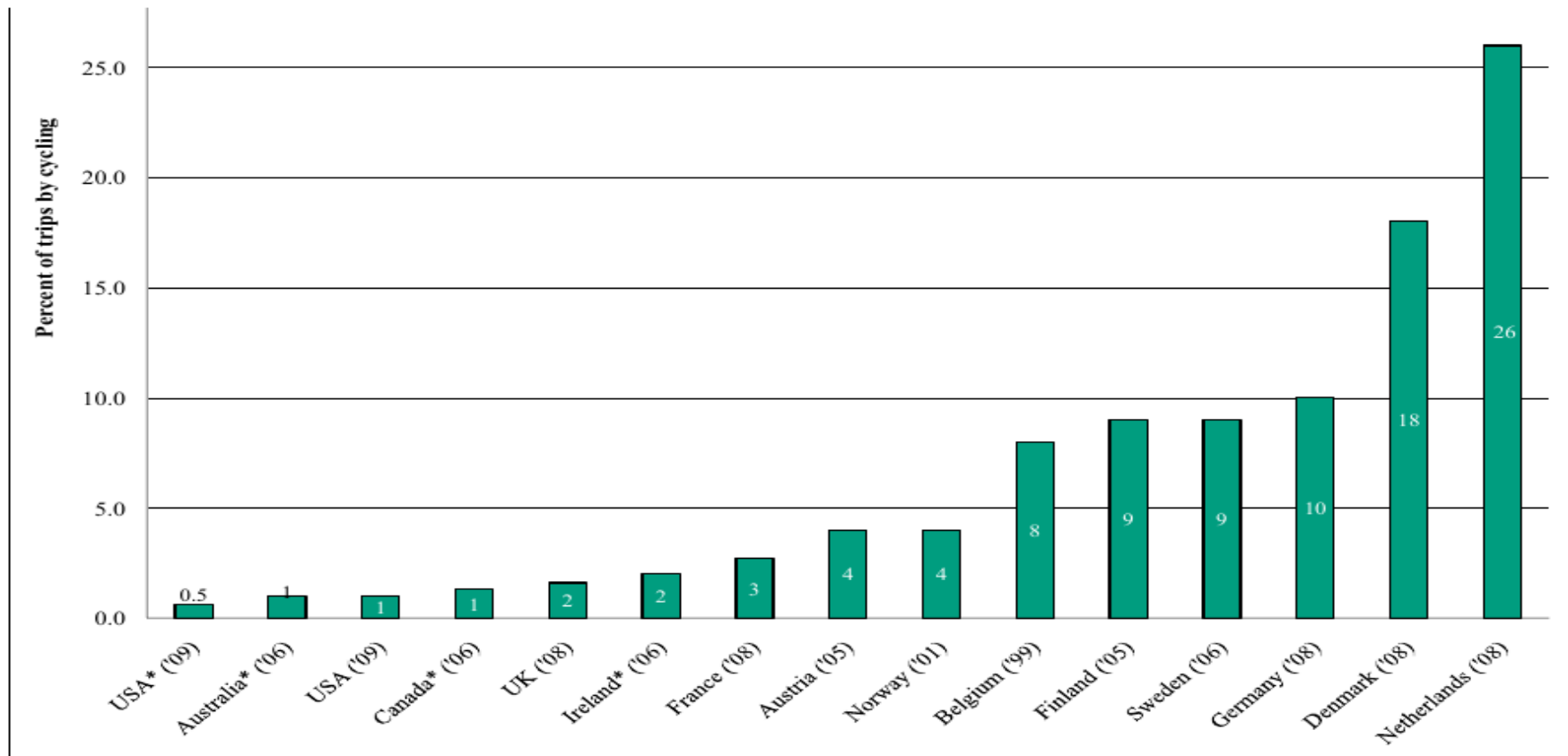
Source: ECMT Report “National Policies to Promote Cycling” Ljubljana 2004

**Direct bicycle potential: 5% + 50% of 50% = 30%**

Direct bicycle potential:

**5% + 50% of 50% = 30% !**

# Cycling Share of Daily Trips in Europe, North America, and Australia, 1999-2008

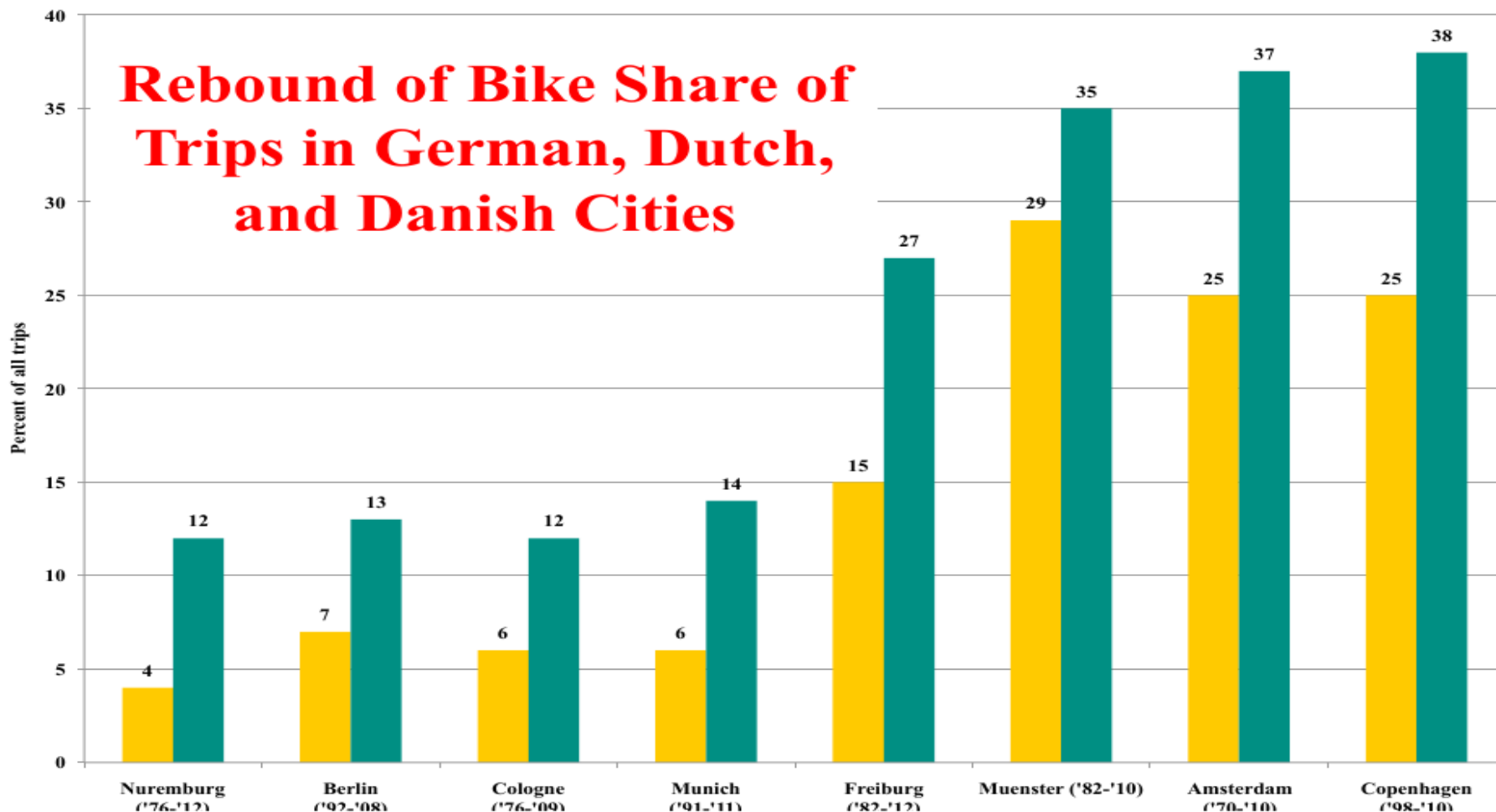


**Source: Pucher and Buehler (eds.) *City Cycling*. Cambridge, MA: MIT Press, 2012**

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**Source: Pucher, Dill, and Handy, “Infrastructure, Programs, and Policies to Increase Bicycling,” *Preventive Medicine*, Jan 2010, Vol. 50, S.1, pp. S106-S125.**





**¿Why people don't use bicycle?**



**What need people for using bicycle?**

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## 8-80 bicycle safe paths

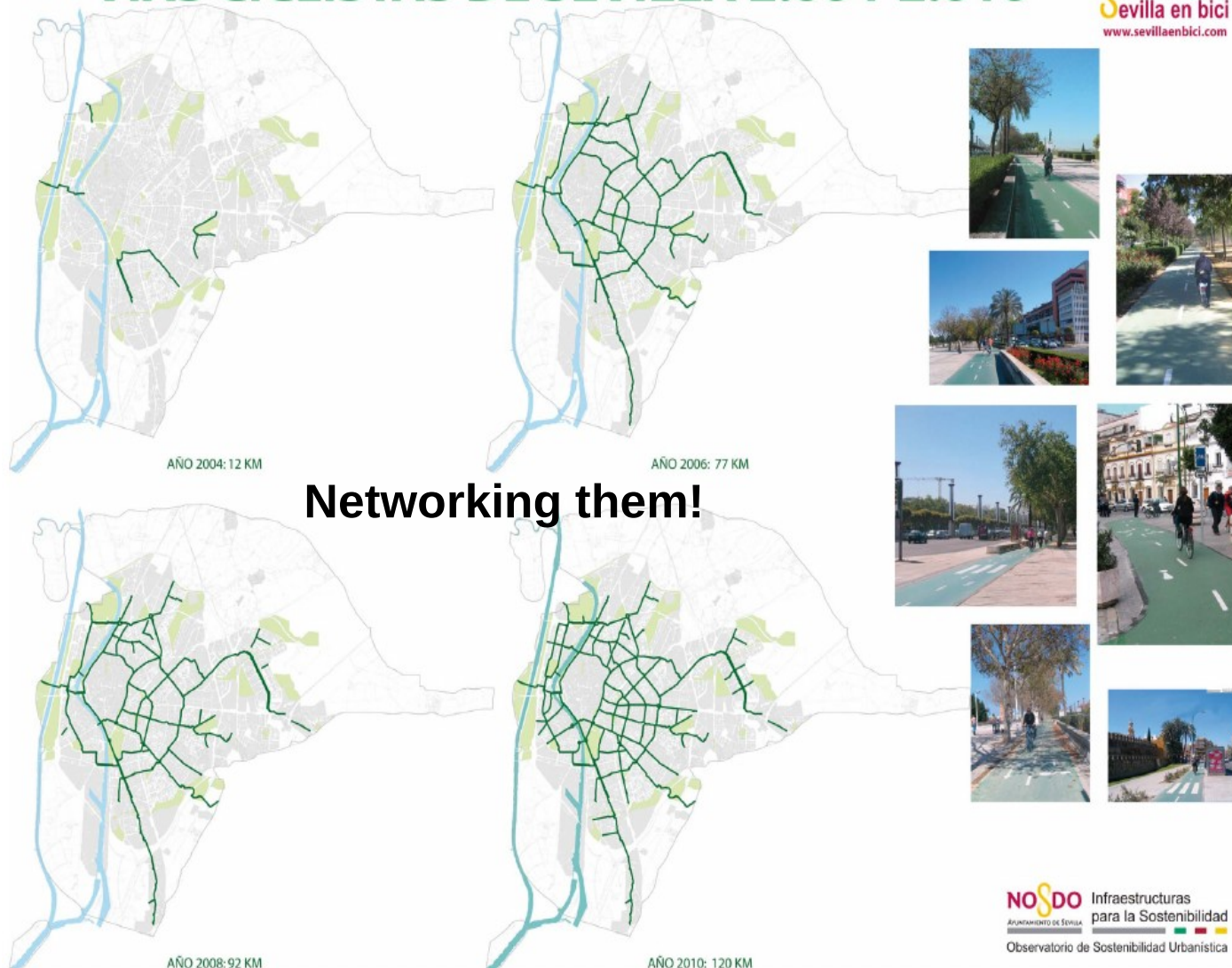


Cicleways must be safe for people 8 to 80 years old

<http://www.8-80cities.org/>

## VIAS CICLISTAS DE SEVILLA 2.004-2.010

Sevilla en bici  
[www.sevillaenbici.com](http://www.sevillaenbici.com)



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**Gaining space to cars for bicycles**

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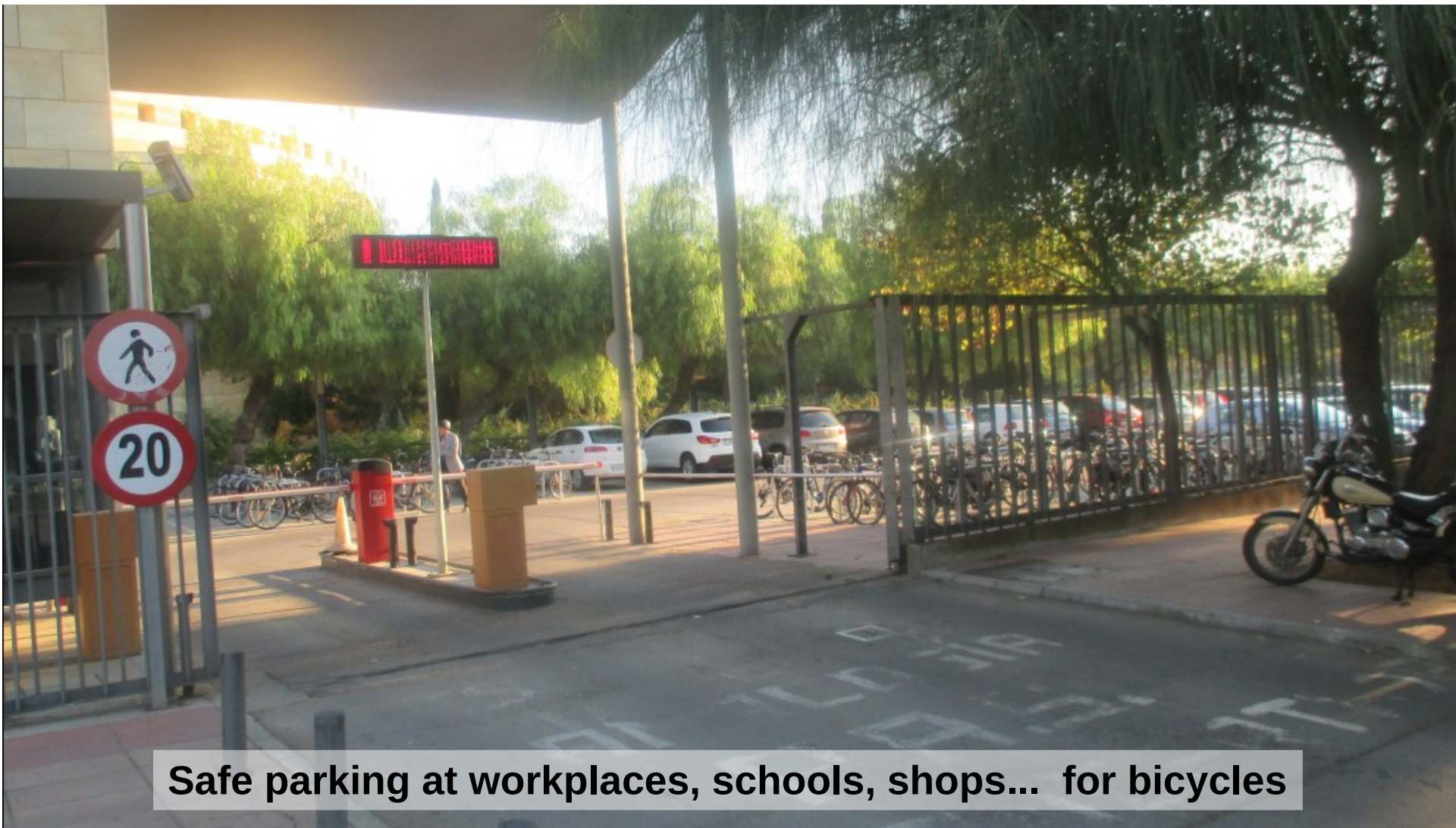


**20 and 30 streets with bicycle priority**

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**Safe parking at workplaces, schools, shops... for bicycles**

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## Safe parking at residential buildings

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## And many other small facilities

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## ... also car use restrictions

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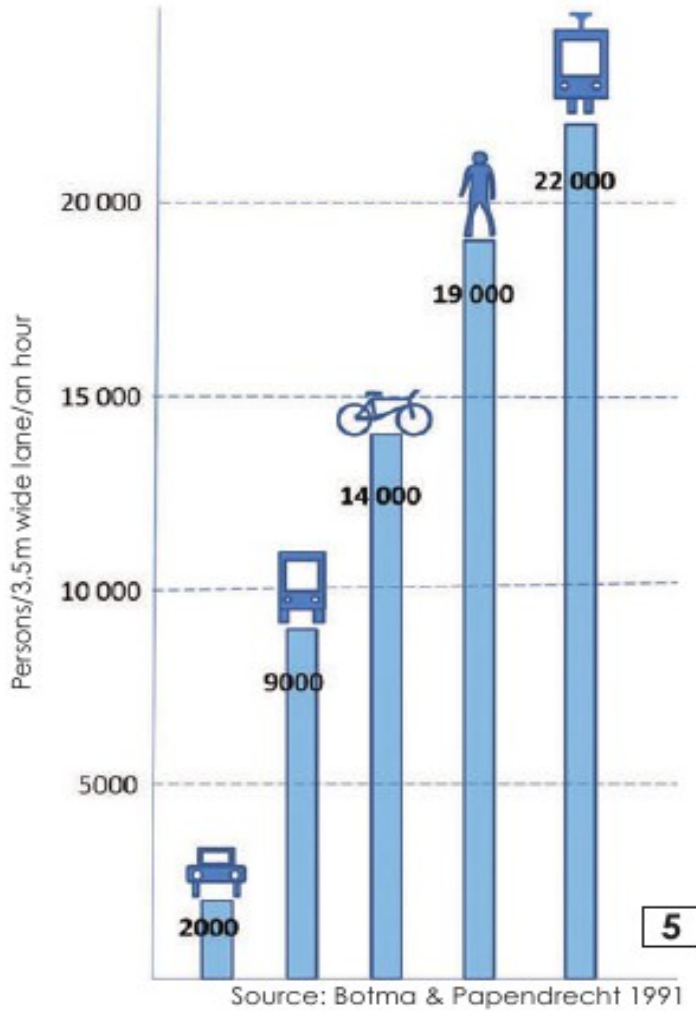


## Because we need car's space

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**Bicycle is much more efficient than car in space occupation**

- For parking
- and for driving

Promoting bicycle is a unique opportunity for gaining space for squares, parks, wider sidewalks...

**And this includes EV !**

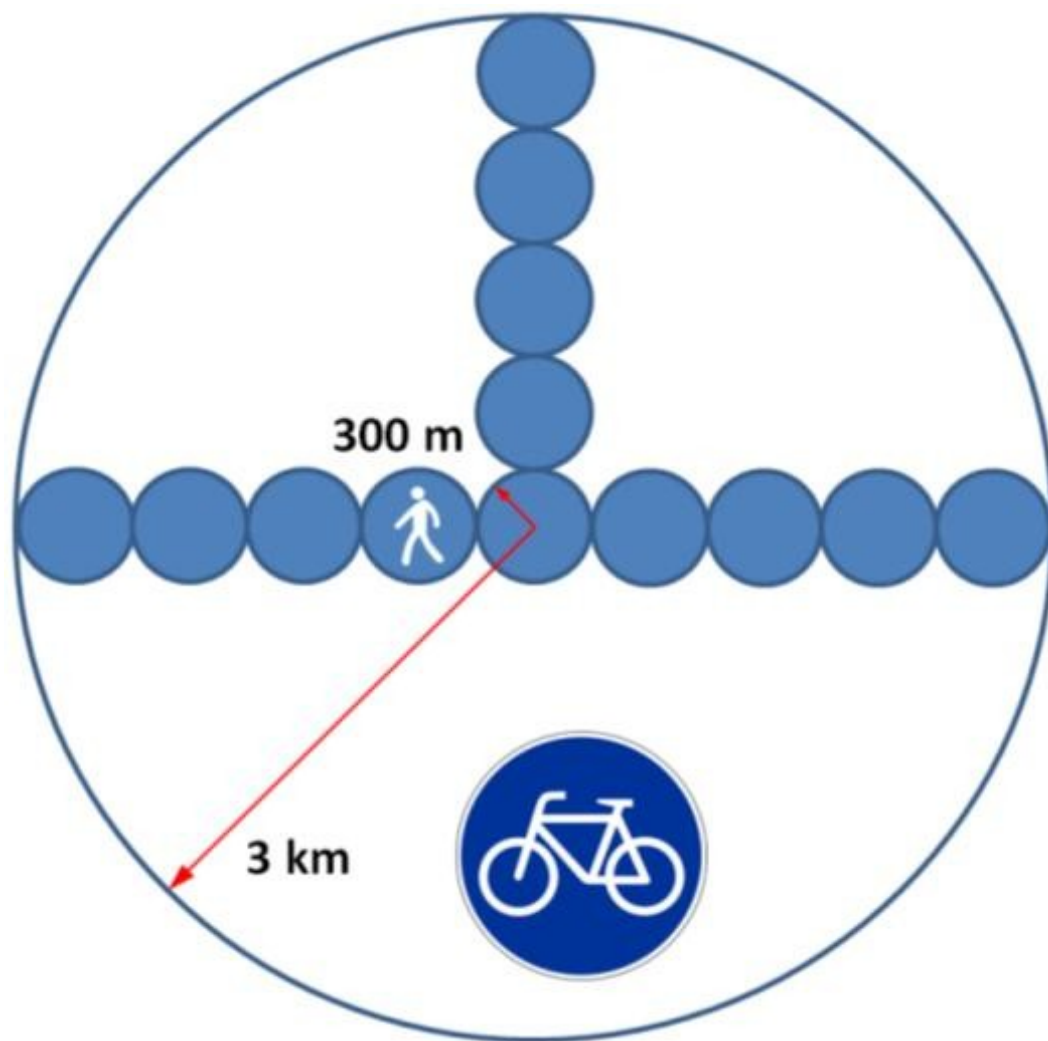
## Indirect potential of cycling: Intermodality with PT



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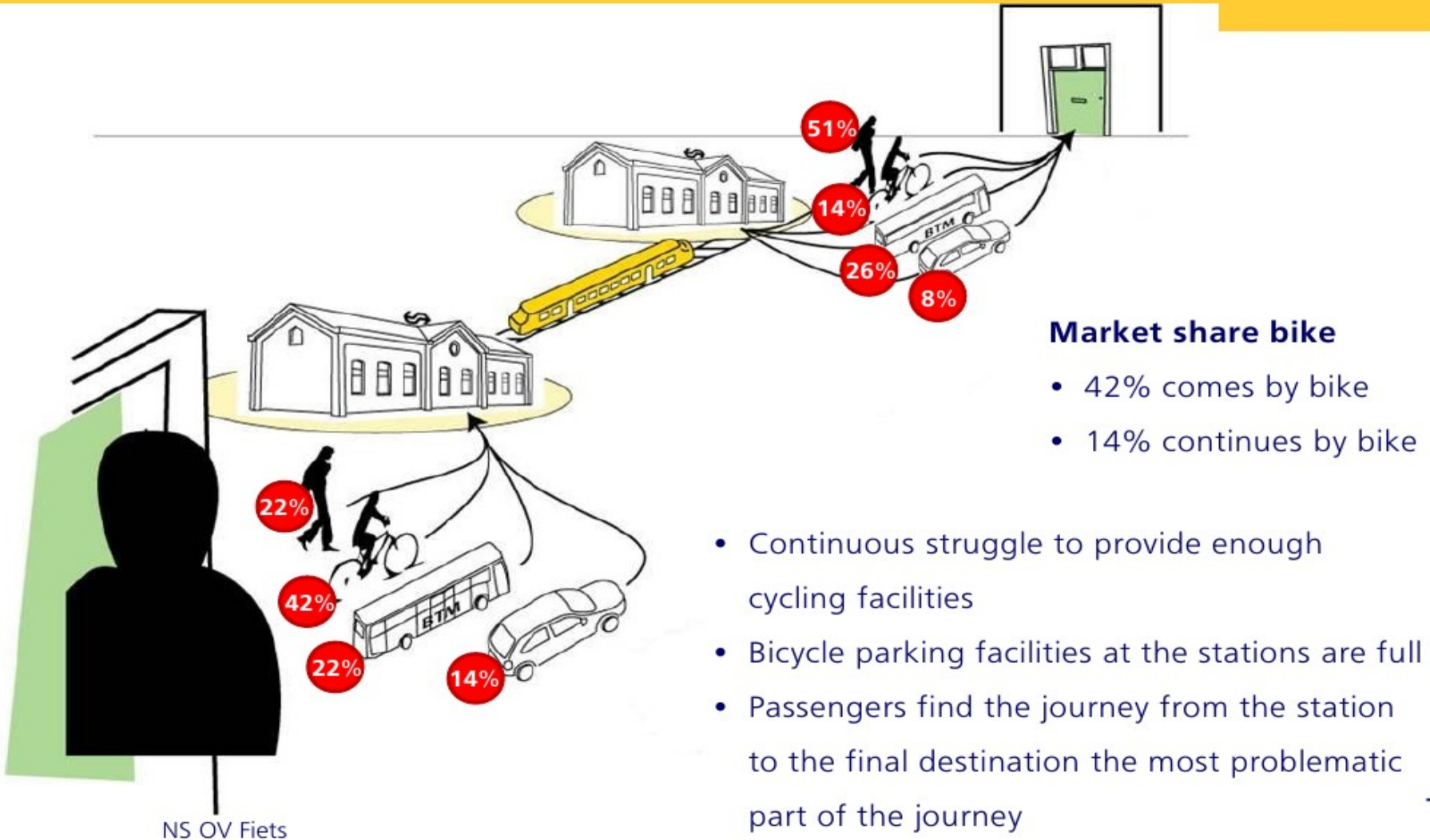


Bicycle-PT intermodality increases the catchment areas of transit stations by a factor between 10 and 100 (sic)

This can be of particular importance for low density populated areas









Bicycle parking

fietsenstalling

**Suburban train station near Amsterdam**

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*Bicycle (alone or combined with PT)  
makes possible to develop an  
urban mobility based on sustainable  
chains of transport modes*

## Role of universities:

- Universities are one of the most important “markets” for bicycle trips.
- University may help to test disseminate bicycle facilities.
- University may host all kind of research and teaching on bicycle use and culture.



## Bike Parking System, University of Seville



Magnetic band  
Memory chip  
Contact card (RF)



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## Long term bicycle sharing system



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## Environmental Politics

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/fenp20>

## Can anyone hate the bicycle? The hunt for an optimal local transportation policy to encourage bicycle usage

José I. Castillo-Manzano<sup>a</sup> & Antonio Sánchez-Braza<sup>a</sup>



Contents lists available at ScienceDirect

## Accident Analysis and Prevention

journal homepage: [www.elsevier.com](http://www.elsevier.com)



On the effect of networks of cycle-tracks on the risk of cycling. The case of Seville

R. Marqués<sup>a, \*</sup>, V. Hernández-Herrador<sup>b</sup>



## Conclusions:

- The importance of bicycle
  - Bicycle as a main mode has a high potential for urban mobility, around a 30% of modal share
  - The promotion of the bicycle is a unique opportunity to gain spaces for people.
  - Bicycle and PT links can play a key role in sustainable PT systems, mainly in low density populated areas.
- Universities can play a key role by boosting the use of bicycle, as well as teaching and research around bicycle mobility.



Coming soon:



# La importancia de la bicicleta

Un análisis del papel de la bicicleta en la transición  
hacia una movilidad urbana más sostenible

Ed. Universidad de Sevilla

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