

Appendix II – Poster Graduate Research Day



university of
 groningen

faculty of spatial sciences

Maarten van der Leck (s2500604)

MSc Environmental and Infrastructure Planning

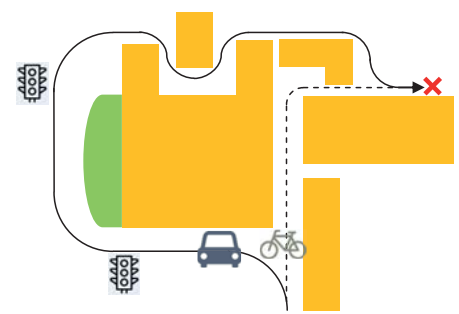
Integrated Bicycle Planning



Considering the variables of the Land Use Transportation Feedback Cycle and sustainable mobility, what are the differences between bicycle integration in a city with high shares of bicycle usage and a city with relative low shares of bicycle usage?

Why cycle?

With the contemporary challenges pressing on cities, cycling can enhance liveability because it is better for the environment, healthy, quicker in urban areas, cheaper for both society (infrastructure costs) and for individuals, requires less space and creates limited noise.



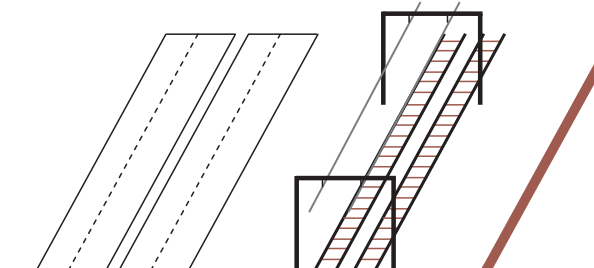
Avoid traffic jams and use shortcuts



Healthy



Cheaper



Requires less space

Within the sustainable mobility paradigm, urban mobility is based on ecology, liveability and sustainable transport.
Hence: Bring back the human scale.
E.g. considering the road as a public place, focus on accessibility and people, and emphasis reasonable and reliable travel times.

Cycling is hard to beat in these areas, for that reason many European cities are enhancing their bicycle infrastructure. In the last decade, the sustainable mobility paradigm emerged that does not fight undesired modes of transport, but reduces the need for travel, encourages a modal split, decreases trip lengths and improves efficiency in the transport system.

Therefore, an integrated approach to bicycle planning is needed.

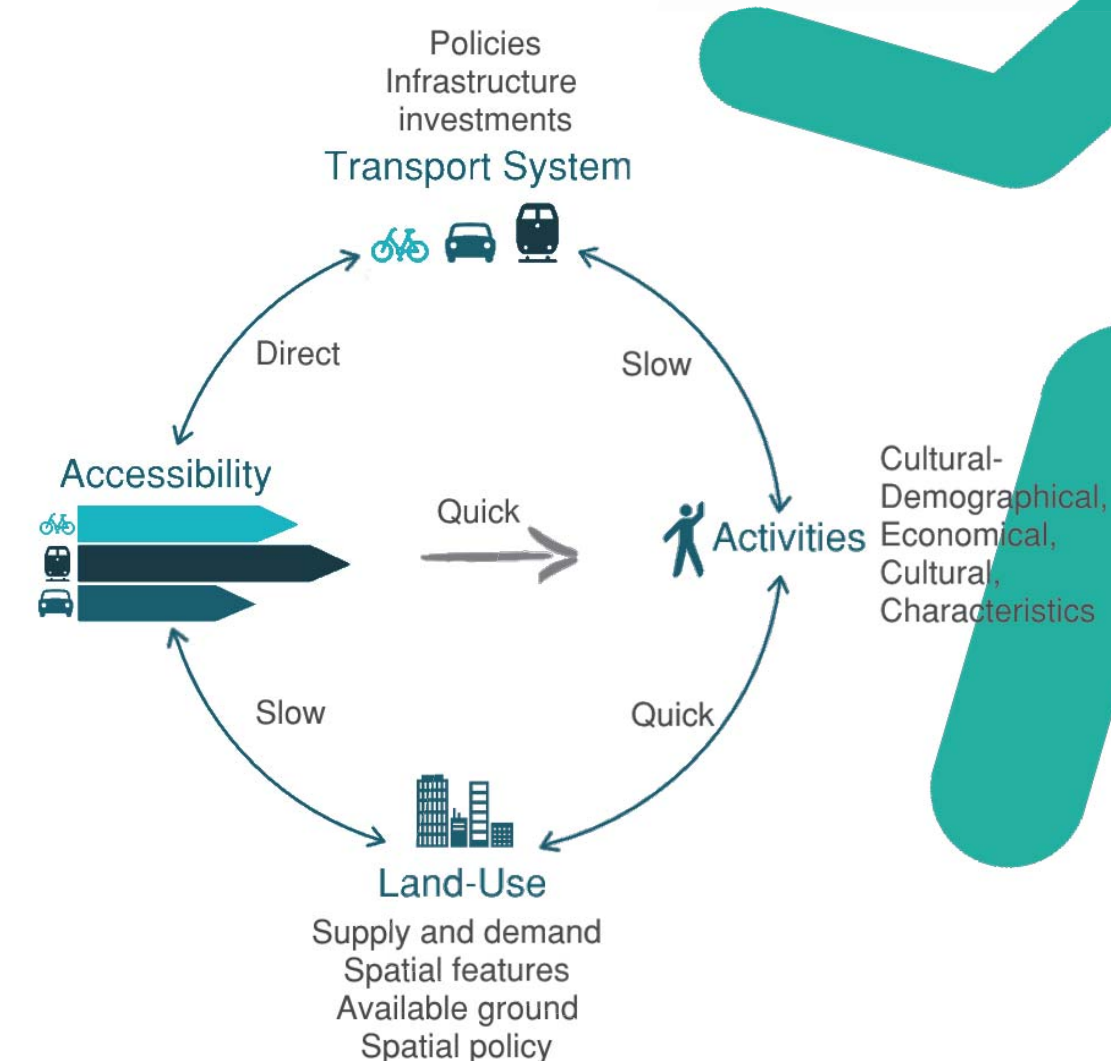
Four actions to foster Sustainable Mobility
Identified by David Banister (2008)

1. Make use of technology
2. Regulations
3. Land-use measures
4. Marketing/information

Land-Use Interaction

Planning is a complex process with tailor made solutions. Each city has a complex interplay between different kinds of policies and policy areas, such as land-use planning, public transport, traffic management, economic etc. These policies are interlinked and interdependent; they can be complementary, but they can also neutralize other policies. Some will have desired side effects, while others have unexpected negative effects.

This essence is captured in the Land-Use Transportation Feedback Cycle
(Bertolini, 2009; Wegener and Fürst, 1999)



Transport system

This aspect encompasses the physical dimension of the mode and its network (infrastructure), as well as the conditions under which you can use the transport system.

Accessibility

Accessibility is the derivative of the transport system and land-use; it is the ability/potential for someone to be able to reach or enter a place and activity.

Land-Use

Mixed land-use, development restrictions and assigning space for infrastructure affect the transport system.

Activities

Activities encompass the actual activities that humans undertake. This behaviour is influenced by personal characteristics. These aspects affect the mode of transport someone chooses.

Method

Theoretical framework

What variables of the Land-Use Transportation Feedback Cycle, are, related to sustainable mobility, of great importance for integrated bicycle policy?

How do cities reflect the variables, of the Land-Use Transportation Feedback Cycle related to bicycle planning, in their policies?

Case study analysis

Expected results

The results will provide policymakers with a tool to see what kind of bicycle integration they have in their city. And thus, where the strengths and weaknesses are.

Banister, D. (2008). The sustainable mobility paradigm. *Transport Policy*, 15, pp. 73-80.

Bertolini, L. (2009). *Planologische mobiliteit*. Amsterdam: Uitgeverij Ark.

Wegener, M. & Fürst, F. (1999). *Land-Use Transport interaction: State of the Art*. Dortmund: Institut für Raumplanung Universität Dortmund.