SUCCESS FACTORS AND LIMITATIONS: AMSTERDAM AS THE BICYCLE CITY

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ABSTRACT

The city of Amsterdam is often praised, and visited, for the prominence of the bicycle in the city. Both the existing infrastructure and the bicycle culture play a role in this prominence, as do both the bicycle trade and the experience / expertise developed by traffic specialists. Most recently the emphasis has been on bicycle theft prevention, with great success.

Factors in this success:

I. *the bicycle has maintained its importance as a means of transport despite the growth of car-ownership*
II. *appreciation for and maintenance of the human scale of the city*
III. *the great value that both the public and politicians place on the bicycle*
IV. *the cyclists' union that has developed from being a body of activists to a professional organization*

Despite the above, Amsterdam struggles with a number of limitations. Ambition often seems to outstrip the final results. There is very little done institutionally towards achieving great results. Amsterdam tends to rest on its past laurels and the knowledge and experience of this generation of experts and advisers. Some issues have lain unresolved for decades. The Cyclists' Union working with the city council's own experts, have produced a causal diagram in an attempt to get this matter under control.

Limits within Amsterdam:

I. *constant changes of opinions on the main cycle route network, which is a hindrance to the development of the network*
II. *large-scale (non-bicycle) projects often have priority*
III. *complicated problems are "never" tackled*
IV. *new urban development project planners often take insufficient account of bicycle and cyclists' needs.*

These limits are as applicable to other cities as they are to Amsterdam.

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1. SUCCESS FACTORS

History is an important factor in the current bicycle use in the city. The bicycle has stayed with us despite the growth in car-ownership and car-usage. Large-scale demolition in order to lay new roads in the city has remained limited, which has enabled the use of both the bicycle and public transport to remain sufficiently attractive. The extent to which cars are permitted in the city has been increasingly the subject of political debate since the 1960s.

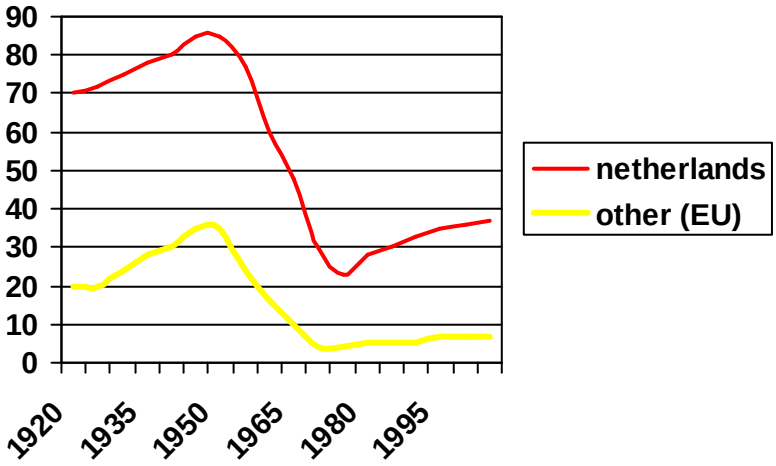
1.1 THE IMPORTANCE OF THE BICYCLE VERSUS INCREASING CAR-OWNERSHIP

Car-ownership continues to grow in the Netherlands and the country has the highest concentration of cars in relation to surface area in the world. A city such as Amsterdam is very densely built-up and is also considered attractive which gives it a competitive edge within its surrounding area. Such cities are in a position to allow a degree of car-exclusion. Amsterdam is doing this at present through its “expensive” parking policy and will continue to do so in the future, possibly with other forms of pricing policy.

The citizens of Amsterdam own relatively fewer cars than the rest of the country. In the Netherlands there are 42.5 registered private cars per 100 inhabitants. In Amsterdam between 1998 – 2003, 31% of inhabitants over the age of 18 years had a car at their disposal. Car-ownership in the peripheral urban districts is the highest with 40% owning a car, Car-ownership in the central urban districts and in the east of the city is lower.
Website:
(source: http://www.os.amsterdam.nl/nieuws/10158)

Even with the growth of private car-ownership in the 1950s and 1960s, followed by suburbanization, the percentage of bicycles as part of overall traffic has remained substantial.

This chart shows the development of bicycle use in overall traffic trends in the Netherlands as compared to other countries. The proportion of cyclists is dramatically reduced but is still of sufficient volume that this form of transport still needs to be taken into account. Bicycles are still to be reckoned with. Later it can be seen that the average occupancy rates drop and over the past few years the city has seen a large growth in the non-indigenous population: the latter being people unused to cycling from an early age. Despite these factors, the bicycle’s share in urban. traffic has remained fairly stable.



“Generally speaking, only minimal attention in policy terms was paid to the bicycle between 1950 – 1975. Policy-makers were predominantly occupied with the car during the 1950s and 1960s and in some cities even earlier. They believed that the car was the future and that

cities should be adjusted to serve the demands of modern car traffic. The 'autogerechten Stadt' is the dominant policy credo, which was diligently worked towards. Little attention was paid to bicycle traffic and new bicycle infrastructure. This state of affairs was partially responsible for the increase in car traffic and the increasing threat to traffic safety amongst cyclists. City roads grew increasingly fuller with cars and the space left over for other road-users decreased. As a result there were far more traffic accidents and a growing fear of accidents which lead to a decrease in the use of the bicycle.

A new trend arose in the 1970s. In almost every city examined, bicycle use began to increase until it stabilized at the end of the 1980s. The spatial structure, car possession and use and the place the bicycle had in traffic policy all played an important role but one rather different than that played in the decrease of bicycle use."

Book / website:

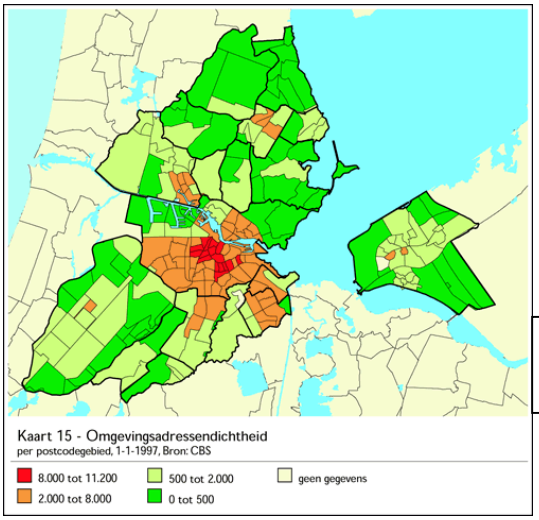
Source: Bruhèze, AA de la and Veraart, F, NEHA-JAARBOEK 1999
. Bicycles and traffic policy. Bicycle usage in nine West European cities in the twentieth century.
http://www.neha.nl/publications/1999/1999_05bruheze.pdf

The chart shows that the reduction in bicycle-use halts "just in time" at the beginning of the 1980s and is then seen to reverse. This was a period in which many demonstrations were held, especially in Amsterdam, supporting the interests of the cyclist. The Dutch cyclists' union ("the first, the one and only") was set up in 1975. The cyclists' union was set up as a counterpart to the ANWB, which originally represented the interest of the cyclist but since the growth of car-ownership and usage has become a body representing predominantly the car driver. The cyclists' union has made a very important contribution to the turnaround in thinking with regard to traffic and transport.

Figure 1: photo: 1978 - Thousands of Amsterdam cyclists protest against the city's traffic and transport policy.

The Bruhèze and Veraart research also revealed that policy-makers' opinions and the consequences thereof have an amplifying effect on this trend, which leads to either a growth of, or reduction, in bicycle use.

1.2 The Human scale of the city



The spatial structure of the city is also important. In Amsterdam the reason that car ownership is low in comparison to the rest of the Netherlands can be in part attributed to the historic development of the city and the conservation of the old inner city and its structure. The part of the city built before the Second World War is especially suited to the cyclists: small scale, protected, intensive land-use and varied functions.

Figure 2
Website:(http://www/afwc.nl/regio_in_kaart/woonmilieus.ht)

This is ideal for cyclists, subject to the limited space available for traffic being rendered suitable for cyclists. In older parts of the city the bicycle is, in most cases, the fastest form of transport.

This map demonstrates that the density of addresses, especially within Amsterdam's city boundaries, is exceedingly high whilst the large new towns (Almere, Hoofddorp, Purmerend) in the surrounding area have much lower densities.

In the 1970s , Amsterdam experienced a swing in approach, not only in traffic and transport terms but also in town planning terms, which led to the development of a town planning approach that sacrificed less to the car and valued the pre-war structure of the city to a greater extent. In the1960s policy development was very strongly biased in favour of urban development in which the demands of car traffic were met, which led to large scale demolition and infrastructure in many European cities. After the swing the various plans developed in the 1960s for traffic in the pre-war city were shelved. In addition in the 1970s, there was enormous resistance to the construction of the first metro line, which required the demolition of a large number of residential buildings on the centre of town. This led to a political move to stop any further demolition and there was a taboo on the construction of any further metro lines or any other large scale changes in the city for a long time.

o shopping centres o car parks o economic centre o Amsterdammers moving to Almere (new town) o more room for cars	o corners shops o city boundary parking o a lived-in city o building for the neighbourhood o more room for public transport

Figure 4
poster fragments of the 1970s movement: "Amsterdam's choice", which image would you rather have?

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1.3 The value of the bicycle: public and political

Amsterdam's city council and the executive place great value on the bicycle at the moment. The fact the bicycle is a boon to accessibility and the surroundings is more than obvious. The bicycle is no longer seen as marginal, nor as the mode of transport for a particular groups of Amsterdammers. Almost everyone cycles regularly, especially the city dwellers, including those in higher income groups. People who come from non-indigenous backgrounds tend not to use the bicycle so much. It is evident that the bicycle is one of the three most important forms of transport, together with the car and public transport. By making more bicycle traffic possible, the city saves on the space needed for more motorised traffic and car parks, whilst just as many people are able to travel in the interests of the viral functioning of the city.

Thus less money and space is needed for infrastructure. The city remains as intensively used, distances travelled stay short and the bicycle becomes the logical form of transport, thus completing the circle.

1.4 Body of activists to professional organization

The cyclists' union referred to above has evolved over the years from a direct action group into a professional organization representing the interests of cyclists and having built up an extensive body of knowledge on cycle traffic, the city and the city council. The experience and knowledge available within the organization is often called upon by many government organizations. In addition, the cyclists' union sounds the alarm at the right moment, which makes it an important and constant factor in gaining results. The city council in Amsterdam supports the union, in order to make this possible.

2. Limitations

Amsterdam has tackled a lot of issues and leads the way when it comes to bicycle traffic in the city. The hard work and determination of politicians, local government officers, the people of the city and the cyclists' union has produced these results, but in order to maintain its leading position Amsterdam needs to tackle new challenges and deal with the problems facing the city at the present moment. These challenges lie mainly within the decision-making process and the organization. The fact that the city is divided into a number of urban district councils which are, to a large extent, responsible for any results, does not make dealing with these challenges any easier. Nevertheless, these organizational problems will have to be tackled before progress can be made. The issues with which the city is wrestling and the reasons why progress is not being made are laid out below.

We have seen how bicycle-use and the city council's policy can either strengthen or weaken each other. If one of the city's councils ambitions is to increase the level of bicycle-use (as part of, for example, improving air quality in the city) then it will have to face new challenges.

The challenges facing Amsterdam include:

- constant changes of opinions on the main cycle route network, which is a hindrance to the development of the network
- large-scale (non-bicycle) projects often have priority
- complicated problems are "never" tackled
- new urban development project planners often take insufficient account of bicycle and cyclists' needs.

It is immediately apparent that good will is not sufficient. The weight given within the organization to one goal as opposed to any other goal is the determining factor. The limiting factors listed above have a lot to do with the relative political weight of the bicycle. It is important but there are other things…….

2.1 Constant changes of opinion hinders network development

Amsterdam has a main bicycle-path network; the most important paths are brought together on the map in a main networks with a specified mesh-width of 300 m. Main networks change. This is not always visible to the cyclists at street level and is often only on papers passed between politicians and their staff. The main bicycle network has been a regular topic of policy development in the course of years. The dilemma is that if the main network is finely meshed, then it becomes so extensive that is it almost impossible to maintain a financial or organizational overview. If the network is widely spread (supported by a secondary network) then the status and importance sections of the secondary bicycle net comes under discussion or connections with the main net are broken, or a link in the network can just disappear.. Neither option has proved satisfactory up to now, nor had switching between the two. The past few years has seen the network regularly receive structurally different forms, generating predominantly extra work. It would be better is simplify the development and management of the network to such an extent that the discussions on details such as the

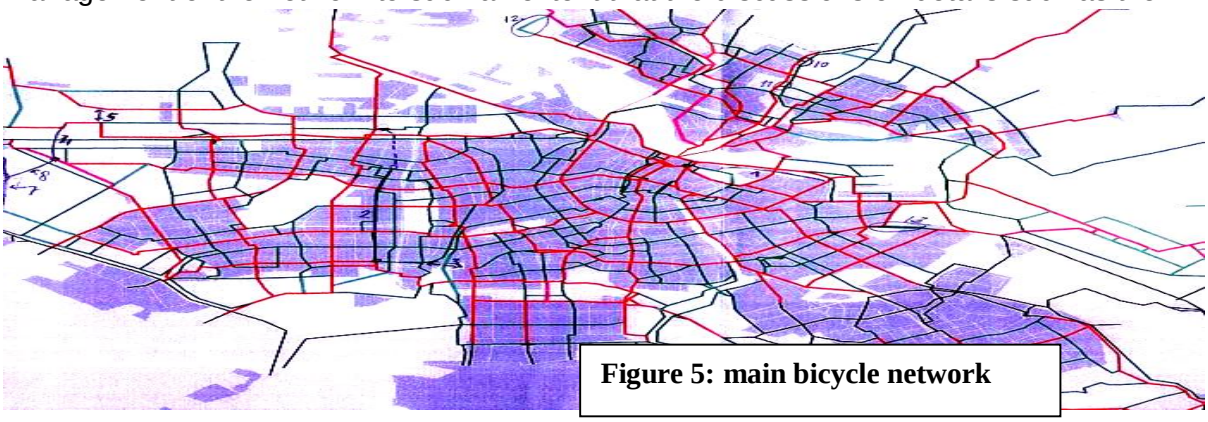

Figure 5: main bicycle network

length and breadth and the established quality norms are no longer necessary. Then the focus would be on progress. Amsterdam is still working out how to do this.

2.2 Large-scale projects have priority

As do so many other cities, Amsterdam has a number of large-scale projects and such projects always bring a degree of uncertainty with them. Projects do indeed run over in both costs and time. This leas to money being “borrowed” from other projects and smaller-scale projects have to wait completion. This is often at the expense of bicycle infrastructure projects , which are either postponed or drastically simplified. This is one good reasons why, in support of the development of bicycle traffic, it is so important that bicycle projects are integrated as far as possible within larger scale projects in order to ensure high level integrated design. Older problems can however be left to languish for some considerable time on the shelf.

2.3 Complicated problems are “never” tackled

There have been a number of mistakes made in the past, as well as the great successes, in the reconstruction of streets in the city. Perhaps there was not enough time nor money to do

it well. Perhaps too much attention was paid to resolving a complex issue and the bicycle structure was ignored. It is not always a success story; chances are sometimes missed irretrievably. There are streets in Amsterdam that needed to be improved for bicycle traffic and where this has not happened. If the chance is missed (as part of a major maintenance project) it is generally some considerable time before the problem can be addressed. In an number of cases the situation is also sufficiently complicated to make finding a solution that fulfils all requirements difficult. Such projects are often under pressure of time, which leads to insufficient time being available to find a good solution. The only way to deal with this is to dedicate sufficient expert capacity to prevent such situations arising.

2.4 Project planners versus the needs of the cyclist

The leading role in the development of new urban areas is taken by town planners. A traffic planner not only looks at the area to be developed itself but also at the area as part of the city. If there is a lack of equal partnership – between urban and traffic planners – the result tends often to be to little attention being paid to the traffic structure at a higher level (district and city). All of the disciplines are of equal importance in a well-integrated design: town planning, traffic planning, civil engineering and landscape architecture. This demands an equally balanced cooperation in which all the disciplines can work and think together. Only then can the best be expected. This is not always the case in practice, owing to the specific requirements of feasibility and progress of the plan itself. Any cooperation can degenerate into a power struggle. An ideal solution would be if all disciplines were trained to work together during their training and were given insights into the aims of other disciplines. The professional raining bodies need to arrange this.

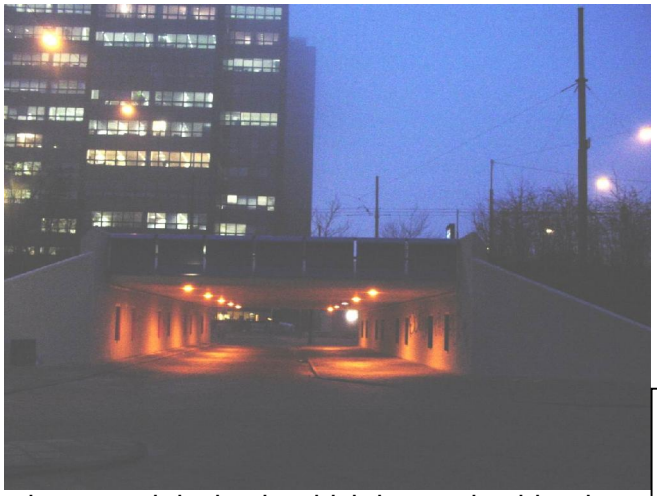

Figure 6: Bicycle underpass will probably be removed because of a new large scale urban development.

Amsterdam is working towards the simplification of the organization around new build housing projects. This simplification runs parallel to easing the various procedures to be gone through, thus reducing the number of people involved. This could be done by, for example, using less capacity to develop plans quicker and get them further. Whether or not this would lead to a well-integrated design in which increasing bicycle-us an important goal is, remains doubtful. The rate of building and the quality of the surrounding area have a greater priority, thus rendering the development of high quality end results for bicycle traffic within the building plans a risky proposition.

3. Conclusion

It may be the case that the readers of this article recognise similar situations and that it provides inspiration in the solving of problems in their own situation. Whilst analysing the Amsterdam situation, we came across an interesting hypothesis: namely the fact that the bicycle is literally a small mode of transport has led us to continue thinking “small”. And this despite the substantial role the bicycle plays in traffic. It would appear that whilst people that the bicycle is a very important part of the Amsterdam traffic, they also believe that the problems can be solved simply. It is naturally important that the small dimensions of the

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bicycle offers a huge advantage and dealing with it is certainly not as complicated as the issues around car-traffic and public transport. We need to take advantage of this. We must be aware of the risk that the pendulum could swing too far in the other direction. “Thinking small” often lead to “small results”, according to the gurus. Taking out courage into both hands we will need to make boundary breaking plans for the bicycle. It is up to the politicians to decide. It will take a great deal of effort to raise the money for such plans and keep that money ear-marked for bicycles projects in the future. It is all too easy to let it slip away , despite everyone’s best intentions. An interesting hypothesis to ponder.

Amsterdam 25th January 2006

Appendix 1

Proposals for “the bicycle city”

Every city with ambition to become a ‘bicycle city’ needs:

Politically and organizationally

- a political structure and organizations that will constantly propagate the interests of bicycle traffic in the city as being important to the functioning of the city, the levels of sound and air pollution, safety and health
- continuing investment in measures to increase the bicycle’s share in traffic especially as car ownership grows
- long-term budgets for bicycle infrastructure with clearly ear-marked funds
- to make use of a professional cyclists’ organization and provide it with financial support or to make use of other specialized traffic experts
- to make use of the sufficient resources available to take every opportunity during the remodelling of streets and neighbourhoods

In terms of specific content

- the design of a finely-meshed bicycle network (with bicycle storage facilities) with realistic quality levels and the implementation thereof managed from its main outline to the finest detail
- to cherish the small scale and mixed function of city districts and make these as accessible as possible to the bicycle
- to supervise urban planners in the development of good bicycle connections between areas in the early stages of new plans; important aspect in the design should include: a minimal detour factor (the relationship between the actual distance and the “as the crow flies” distance), the accessibility of stations and other important destinations, orientation, protection from wind, high differences and slope gradients, public and traffic safety.