City of Amsterdam

Building new cycle-routes in Amsterdam:

The cost-benefit appraisal tool

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City of Amsterdam

Cycling in Amsterdam

Photographer: Fotodatabank gemeente Amsterdam
Cycling in Amsterdam

845,000 inhabitants
78% own a bicycle
1,9 bicycles per household
665,000 trips made by bicycle daily
30km/h speed limit on 90% of the roads
The cycling network of Amsterdam

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tramline</td>
<td>100</td>
</tr>
<tr>
<td>Subway</td>
<td>92</td>
</tr>
<tr>
<td>Cyclepaths</td>
<td>619</td>
</tr>
<tr>
<td>Mixed roads</td>
<td>1,591</td>
</tr>
<tr>
<td>Cars only</td>
<td>201</td>
</tr>
</tbody>
</table>

Source: https://www.amsterdam.nl/parkeren-verkeer/bereikbaar/thermometer/

Fotographer: Laura Dehé
Fotodatabank gemeente Amsterdam
The cycling network of Amsterdam
Getting from A to B quickly and comfortably

Source: http://maps.amsterdam.nl/plusnetten_inspraak/?LANG=nl
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Building for the future:

Growing numbers of cyclists

Source: https://www.amsterdam.nl/parkeren-verkeer/bereikbaar/thermometer/
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Building for the future: 

*Missing links in the cycling network*

Photographer: Fotodatabank gemeente Amsterdam
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Building for the future:
Adding routes to the cycling network

Over 150 potential additions for the network
- bridges
- routes through parks or pedestrian areas
- tunnels

Prioritizing investments with the Cost-Benefit appraisal tool by DTV Consultants
City of Amsterdam

Wishlist appraisal tool
Amsterdam

• Quick
• Simple
• Re-useable (update each year)
Gained travel time for cyclists
Potential use by current cyclists
Potential number of new cyclists (Modal Shift from Car)
Costs

Costs per hour of gained travel time
City of Amsterdam

Gained travel time

“Transport model Amsterdam” not applicable due to large calculation times
Routing API with OpenStreetMaps calculates travel time between 16 relations with and without adding the cycle route: average gained travel time.
Potential use current cyclists

“Transport model Amsterdam” used to redistribute current cyclists with missing link

Cyclists at link per 24 hours

Varies between 22 to 15,000 cyclists
City of Amsterdam

Potential new cyclists

Research Amsterdam:
Every 7 minutes less travel time, leads to 8% more cyclists

Cyclists at link per 24 hours

Varies between 0 to 628 new cyclists per link
Scores

\[ GTT \times (UCC + 0.5 \times UNC) \]

COSTS

GTT: Gained Travel Time
UCC: Use by Current Cyclists
UNC: Use by New Cyclists
Building the 20 most cost-effective links

Subjecting the most promising but costly links to further analysis

No regret investments: cheap and effective

Reject expensive links with little effect
Thank you

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