The Climate-fit.city toolbox presents:

A SERVICE TO SUPPORT CLIMATE-RESILIENT BICYCLE TRAFFIC PLANNING AND DESIGN
Active Mobility improves health, saves space, and is environmentally/climate friendly. It also enhances convenience and safety. The diagram illustrates the motivation behind active mobility, including infrastructure and weather & climate factors.
## Some key facts on the service

<table>
<thead>
<tr>
<th>What?</th>
<th>Climate information tailored to bicycle traffic planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose?</td>
<td>Support improving the comfort of urban cycling</td>
</tr>
<tr>
<td>For whom?</td>
<td>Urban developers, traffic planners, public authorities, awareness raisers, ...</td>
</tr>
<tr>
<td>Providers?</td>
<td>VITO &amp; KU Leuven (climate data) JOANNEUM RESEARCH (analyses)</td>
</tr>
<tr>
<td>Co-developer?</td>
<td>Bike Citizens (GPS-data on tracked trips &amp; analytics tool)</td>
</tr>
<tr>
<td>Cities?</td>
<td>Vienna (pilot), Bremen &amp; Berlin (replication)</td>
</tr>
</tbody>
</table>
**Service concept**

**UrbClim**
Urban climate model from VITO

**WEDDA**
Analyses and forecasting tool from JOANNEUM RESEARCH

**BIKE CITIZENS APP & ANALYTICS**
Bicycle traffic data & visualization tool

Urban climate data

Bicycle traffic data

Climate-fit Service:
Active Mobility (Urban Cycling)
Formats

- Service report
  https://climate-fit.city/resources/
- Maps
- Tables
- Figures
- Interactive analyses
  (new climatic features in Bike Citizens Analytics)

Contents/Key topics

- Sensitivity of a city’s cyclists towards meteorological conditions
- A city’s climatic attractiveness for cycling
- Weather-adjusted bicycle traffic statistics
Sensitivity: How Vienna’s cyclists respond to ...

... perceived temperature

... precipitation  ... wind speed  ... snow
Sensitivity: How cyclists in other cities respond to...

... perceived temperature

... precipitation

... wind speed

... snow
Spatial differences in the sensitivity

Example: Raster (2 × 2 km) – Vienna

Example: Districts – Bremen
Climatic attractiveness: Heat & cold in Vienna

Wet-bulb globe temperature (WBGT) today and in the future (2050s)

Heat stress on hot days (WBGT in °C)
A city’s climatic attractiveness for cycling

<table>
<thead>
<tr>
<th></th>
<th>from Bremen</th>
<th>from Berlin</th>
<th>from Vienna</th>
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<tbody>
<tr>
<td>of Vienna</td>
<td></td>
<td></td>
<td>0.58</td>
</tr>
<tr>
<td>of Berlin</td>
<td></td>
<td>0.65</td>
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</tr>
<tr>
<td>of Bremen</td>
<td>0.68</td>
<td></td>
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# A city’s climatic attractiveness for cycling

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</tbody>
</table>
Potential for bicycle traffic volume increases ...

+47 % in Bremen
+54 % in Berlin
+70 % in Vienna

Climate-fit bicycle traffic planning is worth while!
Acknowledgement

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