

 @ClimateFit
 #ClimateFit

 Climate
-fit.city

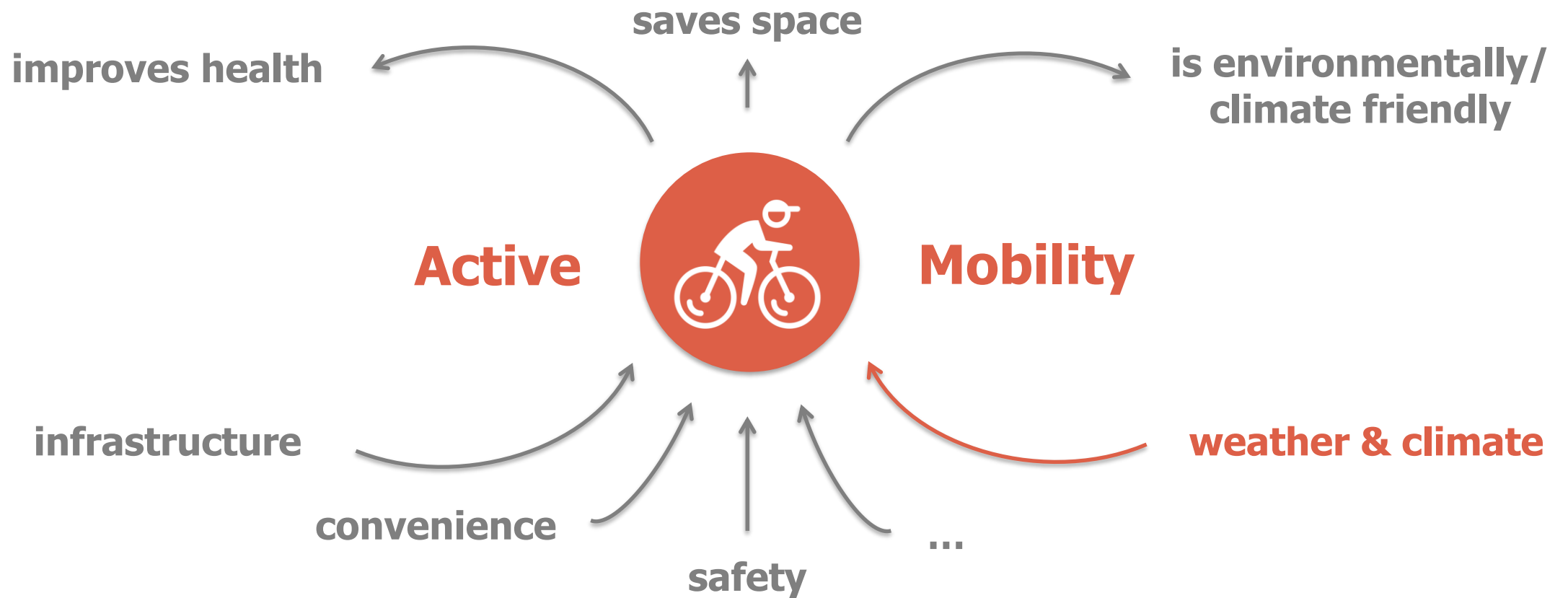
The Climate-fit.city toolbox presents:

A SERVICE TO SUPPORT CLIMATE-RESILIENT BICYCLE TRAFFIC PLANNING AND DESIGN







Climate-fit.city is developed as part of the PUCS project, which has received funding from the European Union's H2020 Research and Innovation Programme under Grant Agreement No. 73004

Motivation



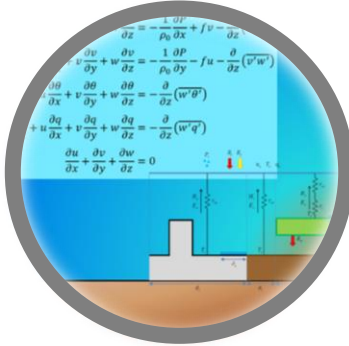
Some key facts on the service

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

Service concept

UrbClim

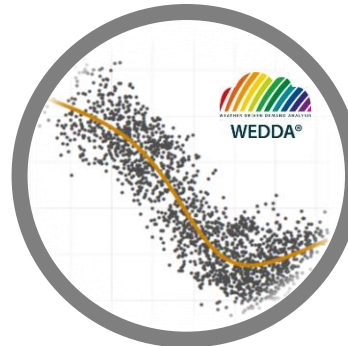
Urban climate model from VITO



Urban climate
data

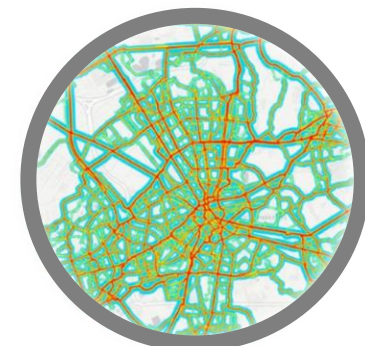
WEDDA

Analyses and forecasting tool from
JOANNEUM RESEARCH



BIKE CITIZENS APP & ANALYTICS

Bicycle traffic data & visualization tool



Bicycle traffic
data

Climate-fit Service:
Active Mobility (Urban Cycling)



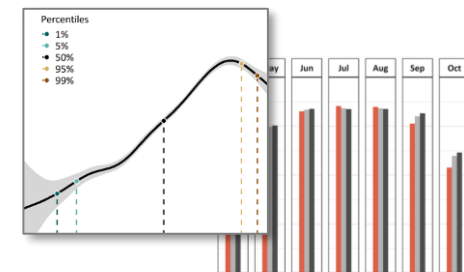
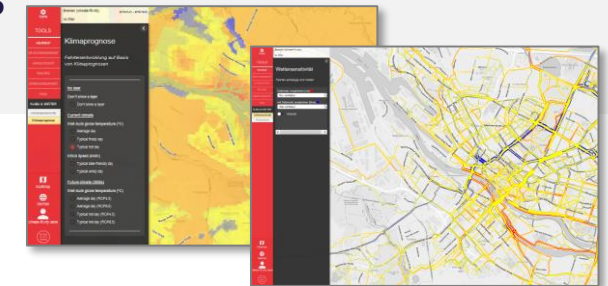
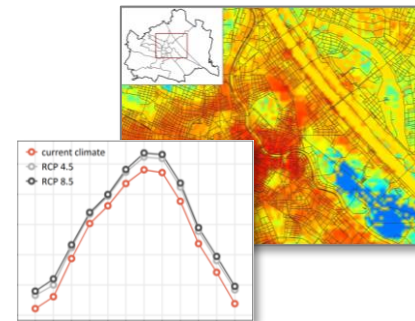
Service content & format

Formats

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

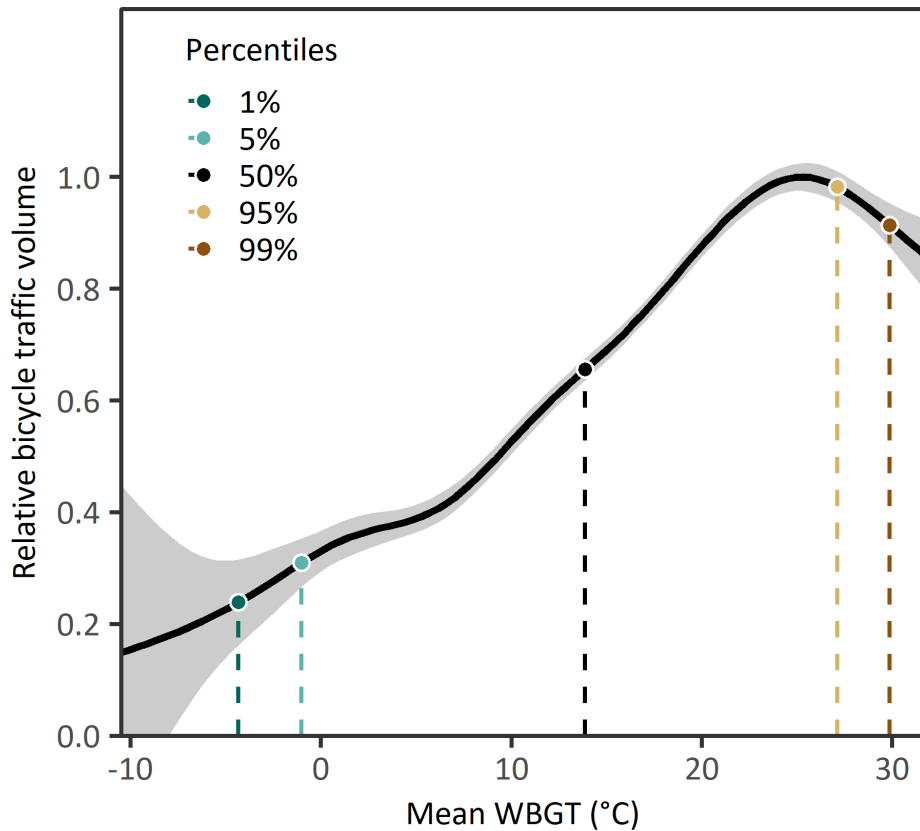
Contents/Key topics

- Sensitivity of a city's cyclists towards meteorological conditions
- A city's climatic attractiveness for cycling
- Weather-adjusted bicycle traffic statistics

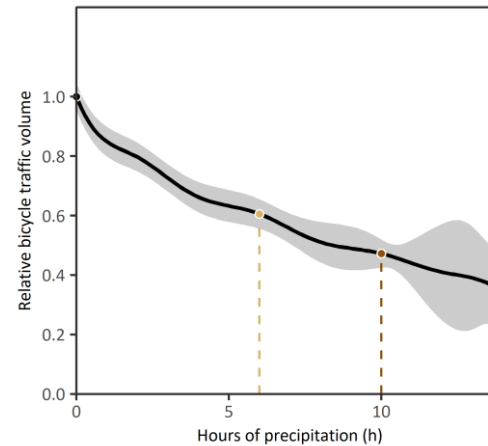


Sensitivity: How Vienna's cyclists respond to ...

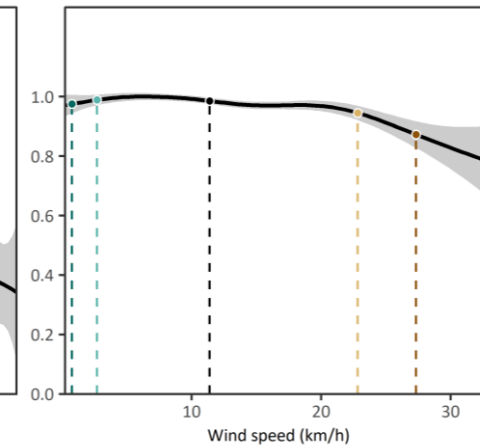
... perceived temperature



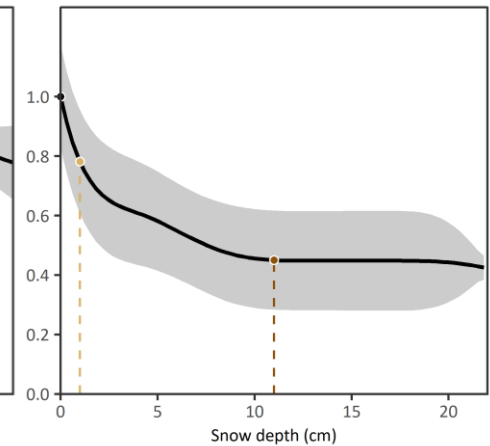
... precipitation



... wind speed

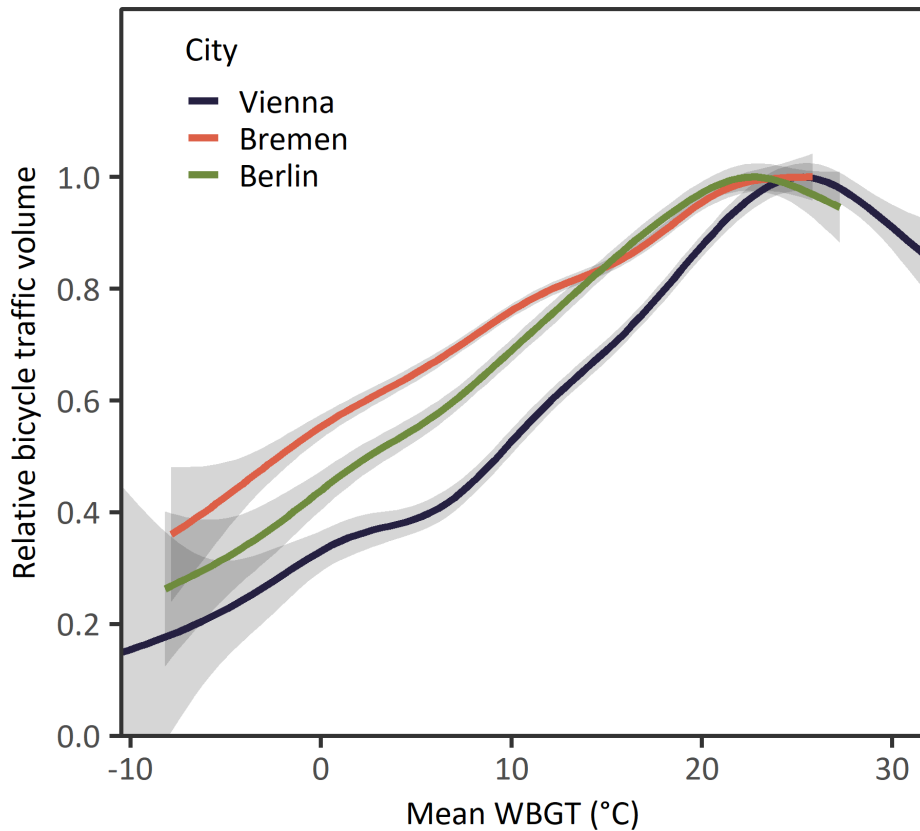


... snow

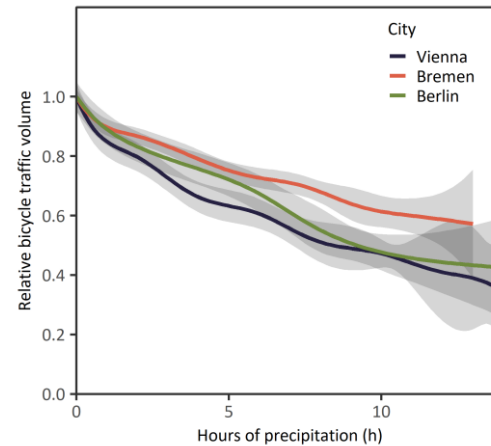


Sensitivity: How cyclists in other cities respond to ...

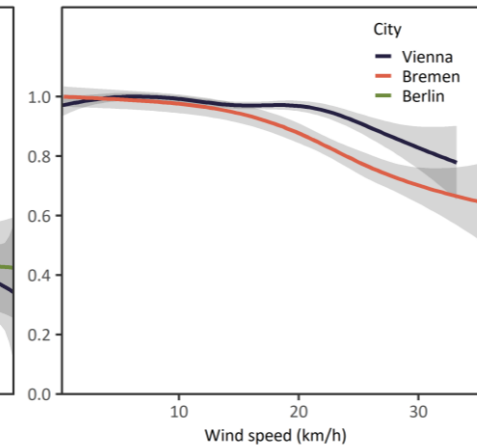
... perceived temperature



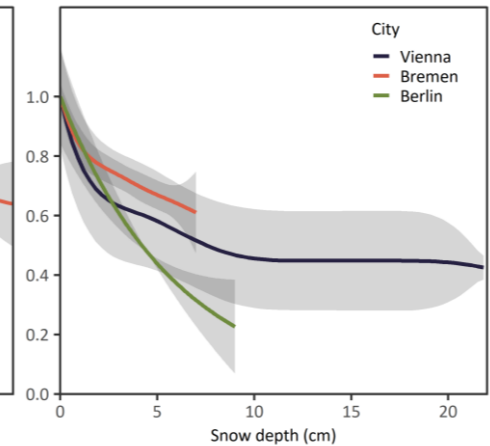
... precipitation



... wind speed

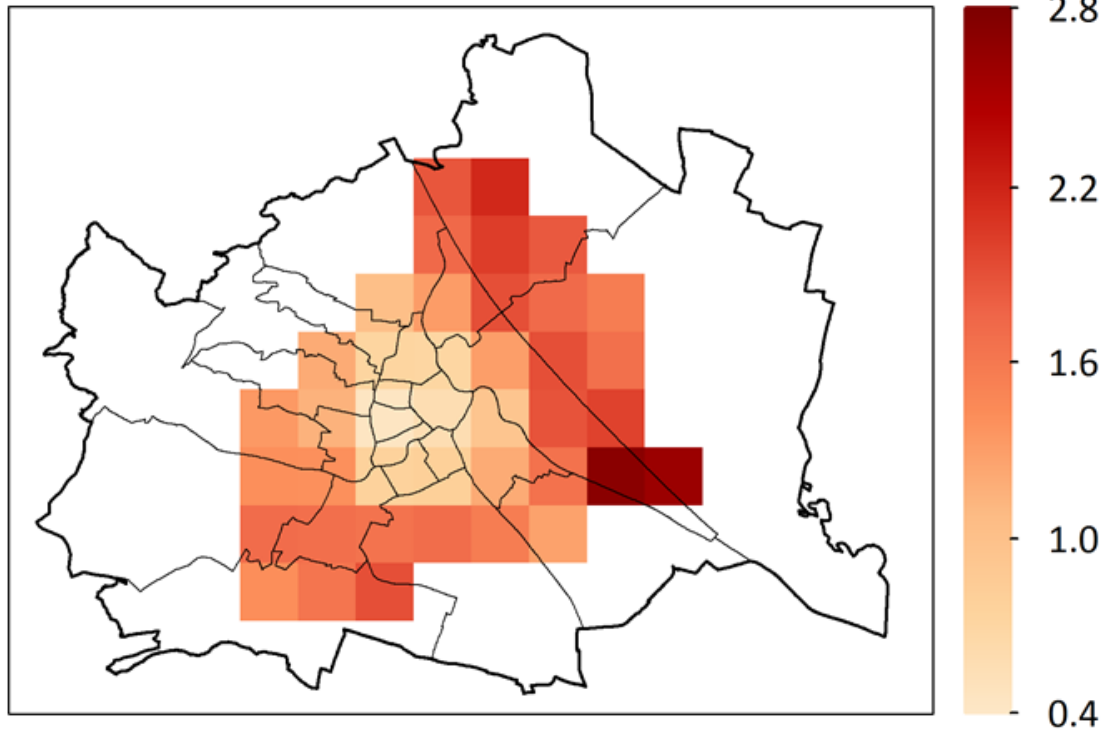


... snow

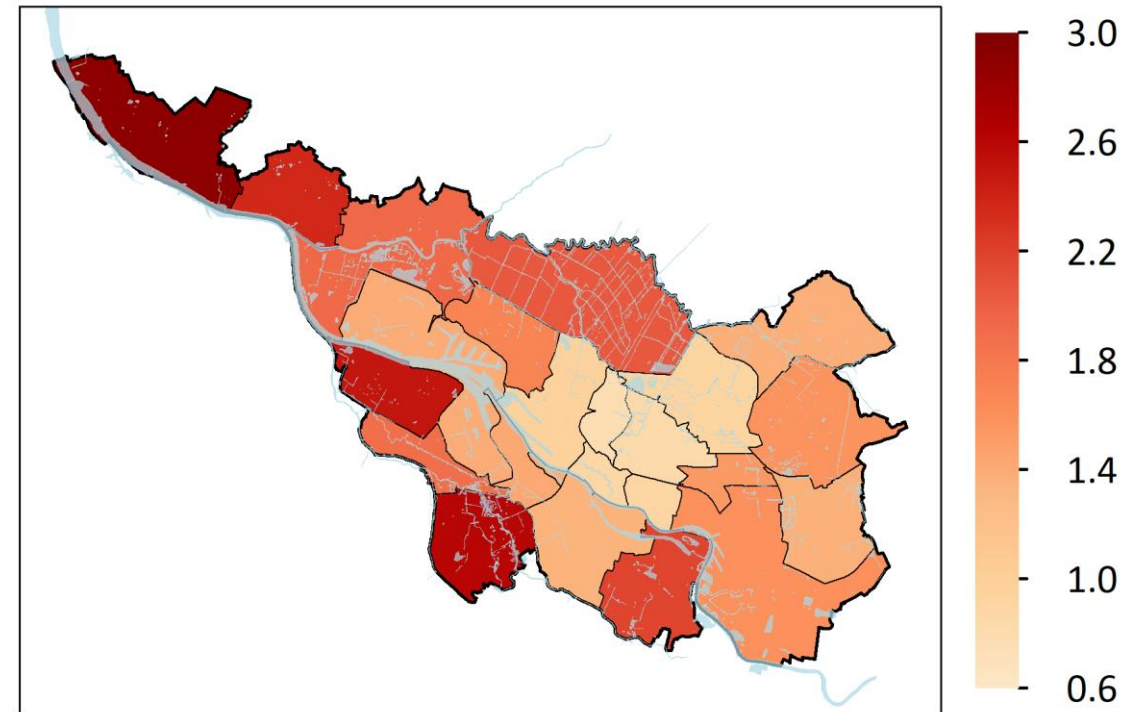


Spatial differences in the sensitivity

Example: Raster (2 × 2 km) – Vienna

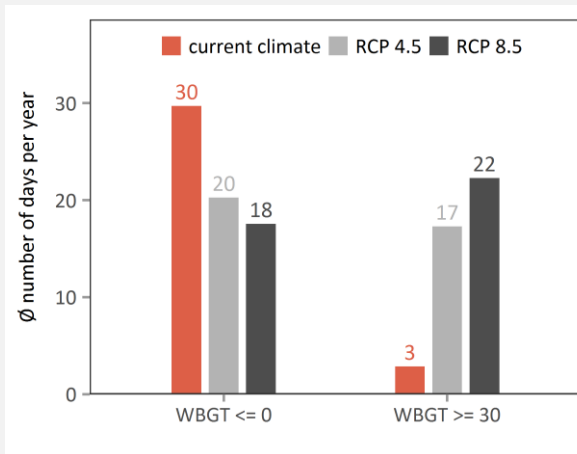
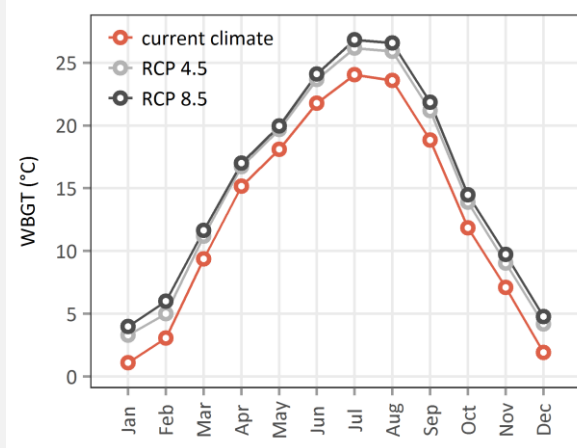


Example: Districts – Bremen

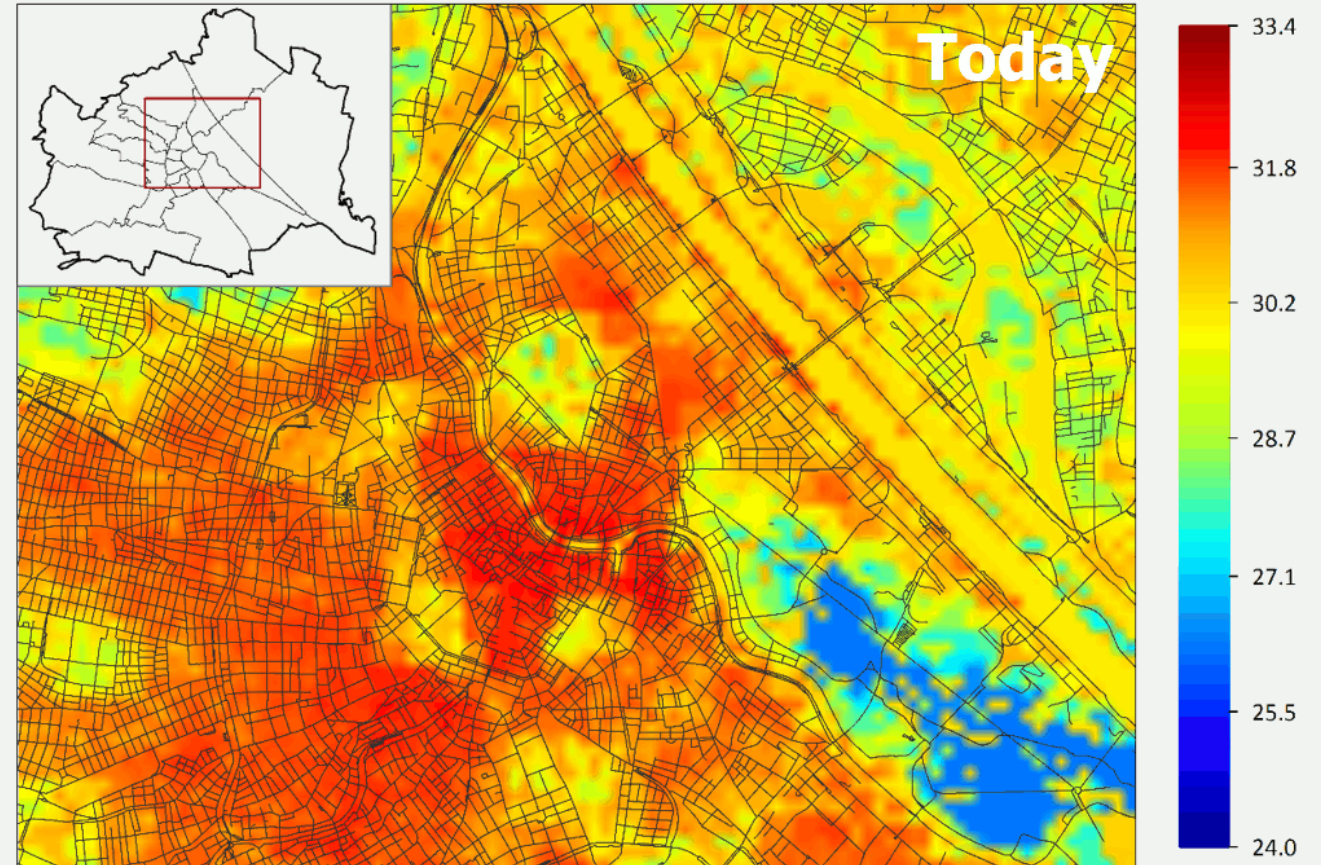


Climatic attractiveness: Heat & cold in Vienna

**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

	 from Bremen	 from Berlin	 from Vienna
 of Vienna			0.58
 of Berlin		0.65	
 of Bremen	0.68		

A city's climatic attractiveness for cycling

	 from Bremen	 from Berlin	 from Vienna
 of Vienna	0.71	0.69	0.58
 of Berlin	0.69	0.65	0.53
 of Bremen	0.68	0.65	0.51

Potential for bicycle traffic volume increases ...

+47 %
in Bremen

+54 %
in Berlin

+70 %
in Vienna



**Climate-fit bicycle traffic
planning is worth while!**

Image: Mircea Iancu at Pixabay

Acknowledgement



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