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CLIMATE- FIT.CITY ONLINE ANALYTICAL PLATFORM NEEDS



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The consortium is composed of 14 organisations,

- including 6 businesses (T6, METEOTEST, INES, BIKE CITIZEN, GISAT, ARCTIK),
- 3 public bodies (ANTWERP, SSColosso, ASPB),
- 1 NGO (IURS),
- 4 research organisations (VITO, JOANNEUM, ISGLOBAL, KU LEUVEN).



CLIMATE-FIT.CITY PROJECT

- The aim of the project is to create, demonstrate and expand a sustainable pan-European urban climate service
- **Assessment of usability, limits and strengths and weaknesses of the UrbClim model when applied in real conditions of selected sectors**
- UrbClim model has developed and owns VITO



Six sectoral service cases

- domain of health - Barcelona
- building energy - Bern
- emergency planning - Antwerp
- urban (spatial) planning - Prague/Ostrava/Hodonín
- active mobility - Vienna
- cultural heritage- Rome



Urban planning service

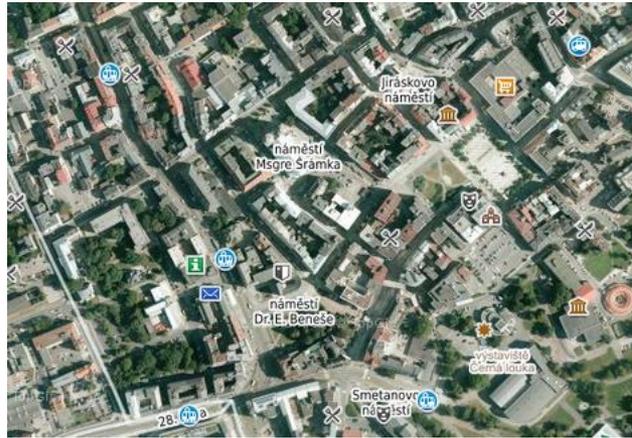
Concept:

*– to assess the influence
of the LU/LC modifications
on climate conditions in the city
(outputs of the UrbClim model)*





Commercial/industrial



Dense urban fabric



Low density urban
fabric/urban green



Input datasets: LU/LC structure

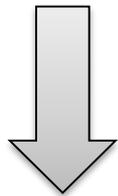


UrbClim Model (VITO)

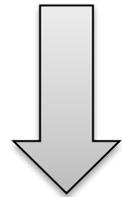


temperature maps in time series

statistical model



Analytical platform (GISAT)

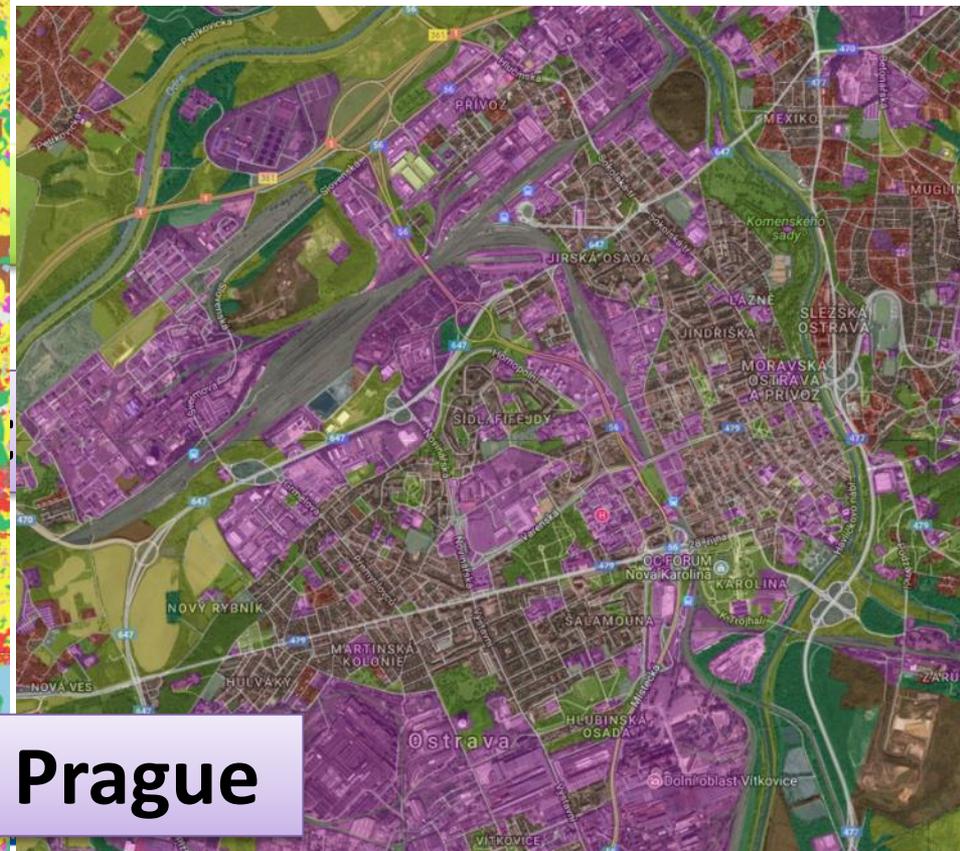
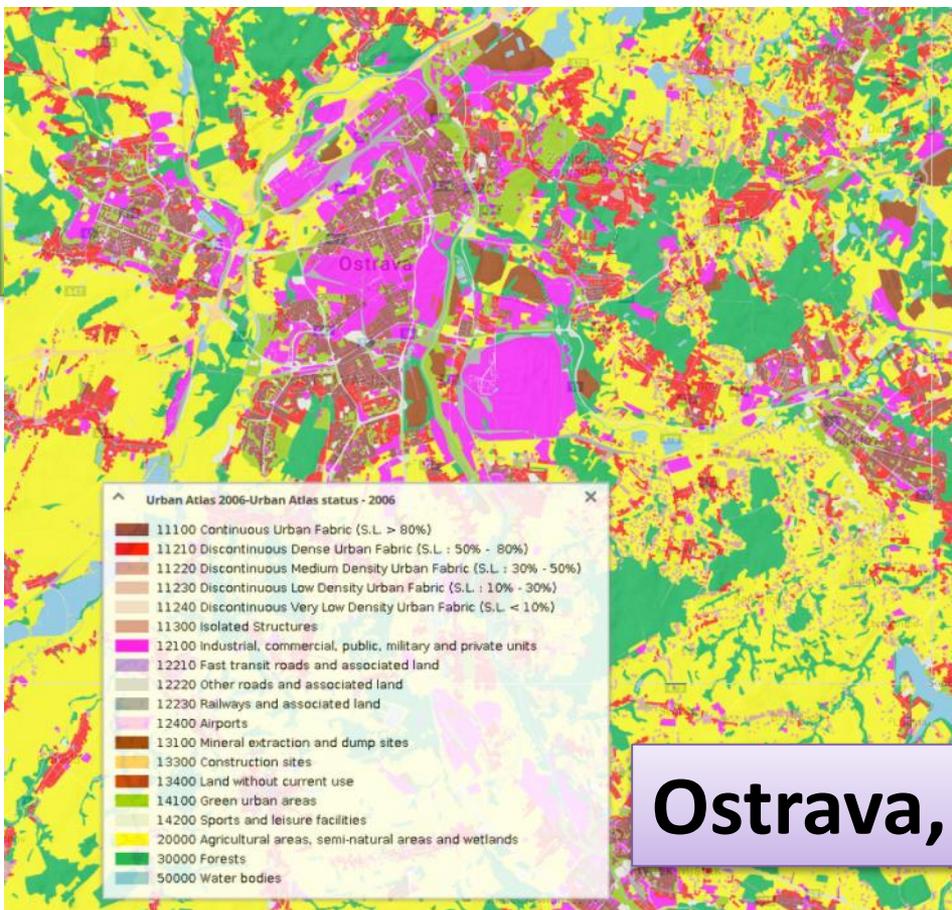


**Visualisation, statistics,
interactive analysis**

**Urban planning
scenarios modelling**

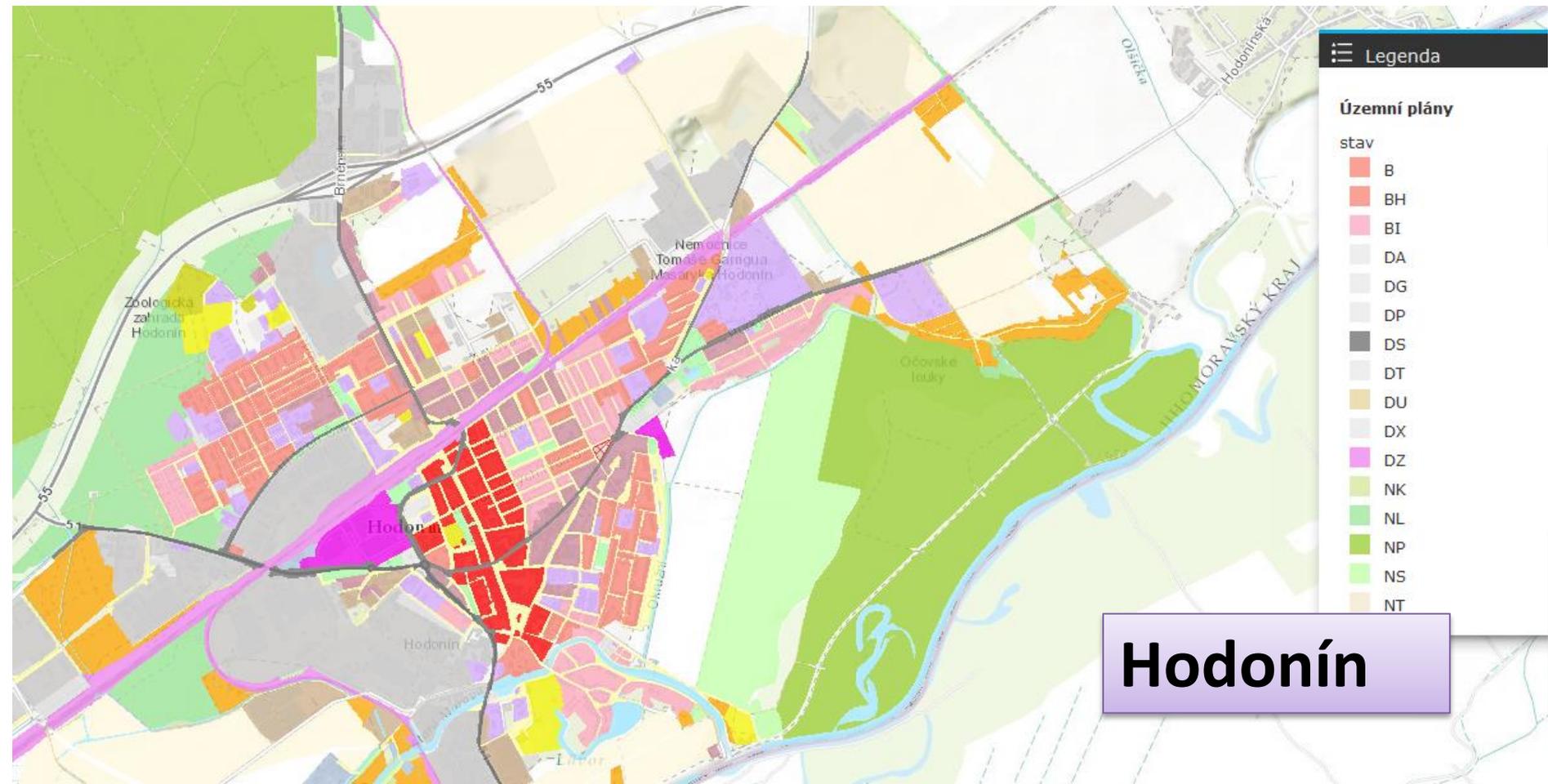
Input datasets: LU/LC structure

Copernicus Urban Atlas 2012 (2006, 2018)
– available for all larger European cities



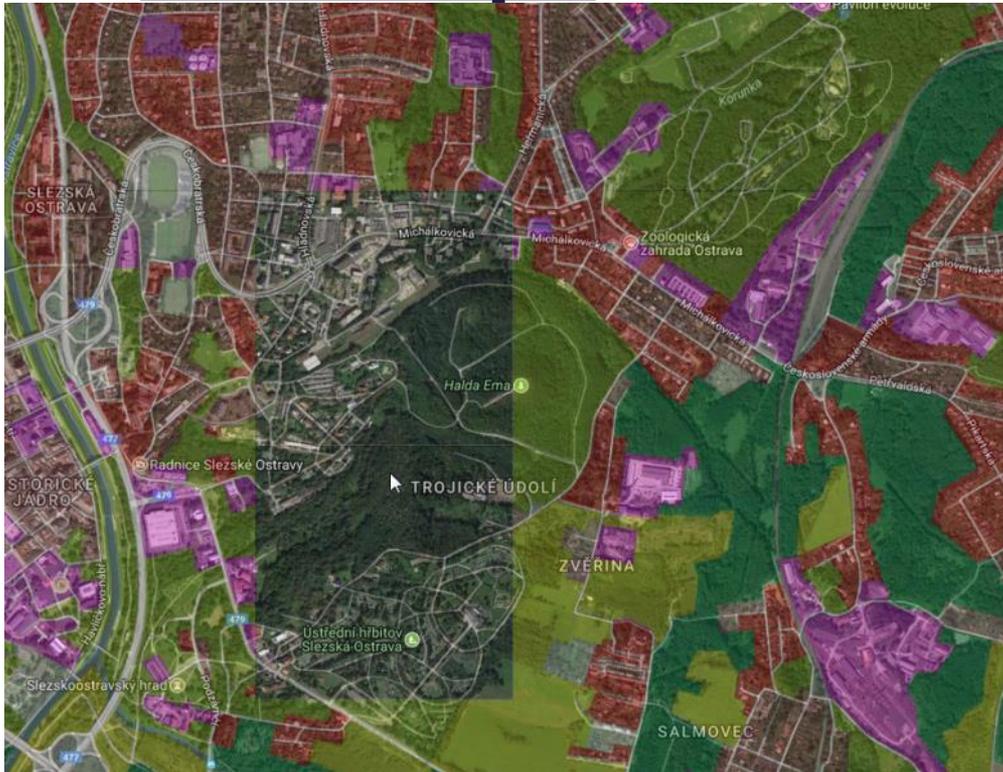
Input datasets: LU/LC structure

Local urban planning datasets



Ostrava – specific services

- Reflection of urban planning strategy in urban climate development – city level
- Heat Heaps – influence on local climate



Prague – specific services

- Reflection of urban planning strategy in urban climate development – city level, sub-city level
- High Resolution Temperature data model for the city centre – 3D data Prague, incl. Trees
- <https://app.iprpraha.cz/apl/app/model3d/>



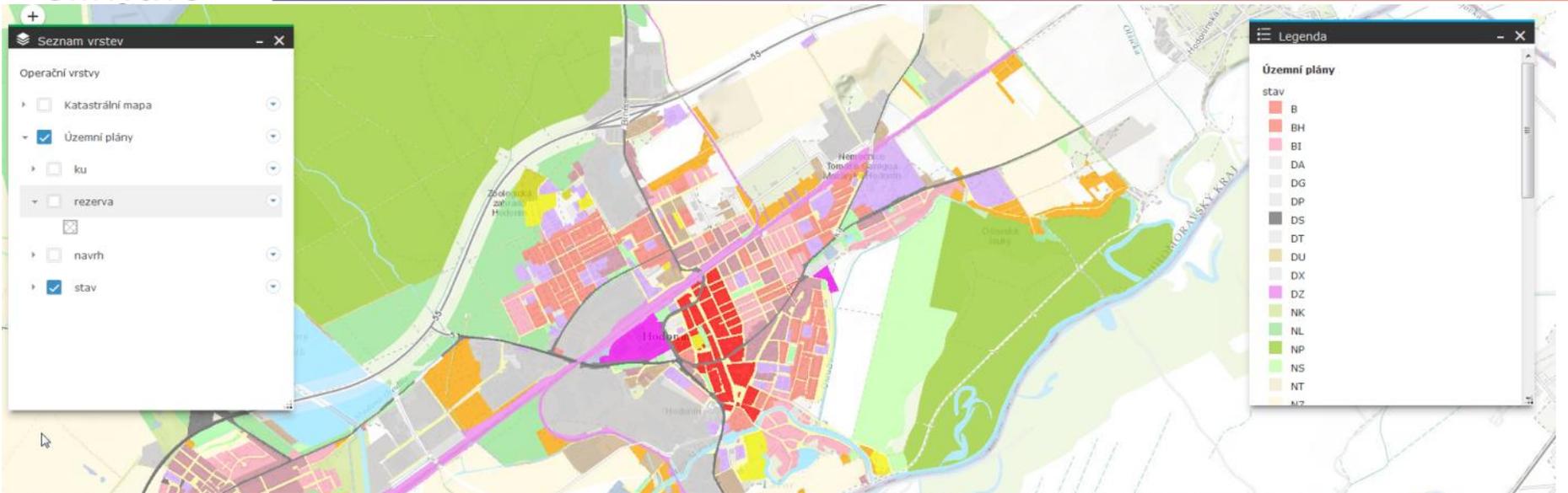
Prague – specific services



Hodonin – specific services

- Reflection of urban planning strategy in urban climate development – small city – very local level (e.g. development of the main square or gardening colony)
- boundary conditions for UrbClimb model – level of spatial detail, city size





Hodonin – specific services

Solution process of project

1. Define Needs and Expectations
2. Pilot Terrain Model Application
3. Evaluation of the sufficiency and complexity of input data
4. Evaluation - Application - Expectations – Outputs

*** The end of the first part

1. Define and identify overlap of individual sectors
2. In the selected area, the application of another sector in the model
3. Model Usability Summary

*** End of the project

Workshop in Ostrava



Participants' profiles

- **Pilot cities:**
 - Prague (
 - Ostrava city representatives
 - Slezska Ostrava sub-city district representatives
 - Major of Hodonin city
- **Regional development agencies** (North and South Moravia)
- **Technical University of Ostrava**
- **Czech Academy of Science – Institute of Geonics**
- **EKOTOXA** - Centre for environment and land assessment



Main conclusions

- **Users are highly interested in the topic of urban climate/heat**
- **Urban heat is perceived as a big issue**
- **They are aware of the linkage between urban land use and urban climate/temperature**
- **They support sustainable development of the cities – need to address environmental issues, including urban climate in the decision making processes**
- **Biggest climate issues:** urban heat, torrential rain events, floods



Urban planning scenarios modelling

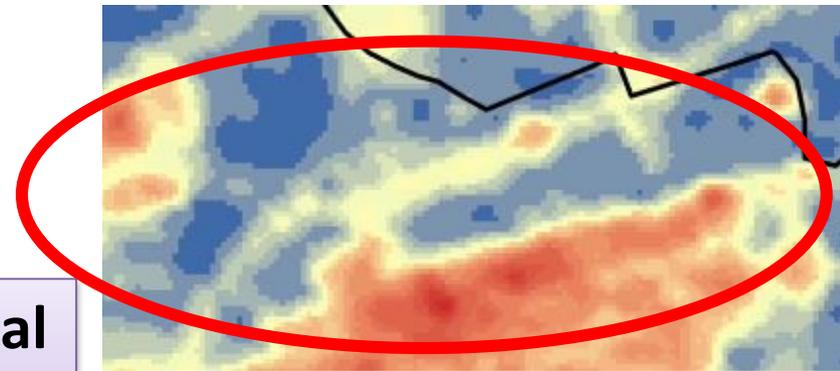
Scenario1



Scenario2



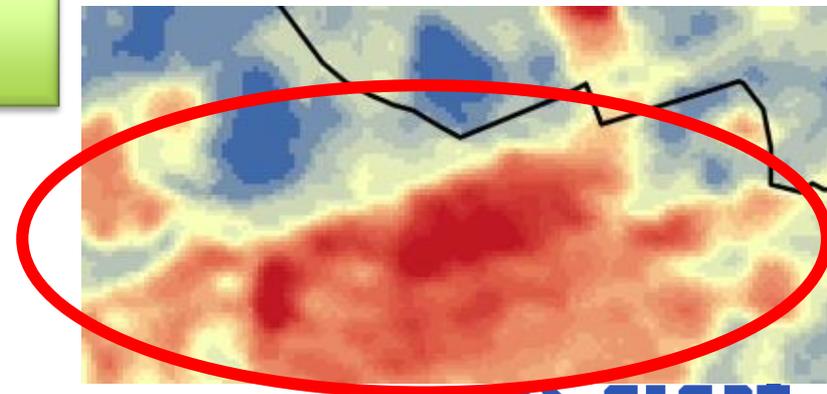
Sub-city level



Analytical platform (GISAT)

Reflection in climate conditions

Statistical model





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**THANK YOU FOR YOUR
ATTENTION**

[HTTP://CLIMATE-FIT.CITY/](http://climate-fit.city/)



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