Klimapolis Laboratory

A transdisciplinary approach for science to policy in Brazilian metropolitan areas

Nico Caltabiano
Max Planck Institute for Meteorology

DWIH-FAPESP Online Talk

@KlimapolisLab

19 October 2020

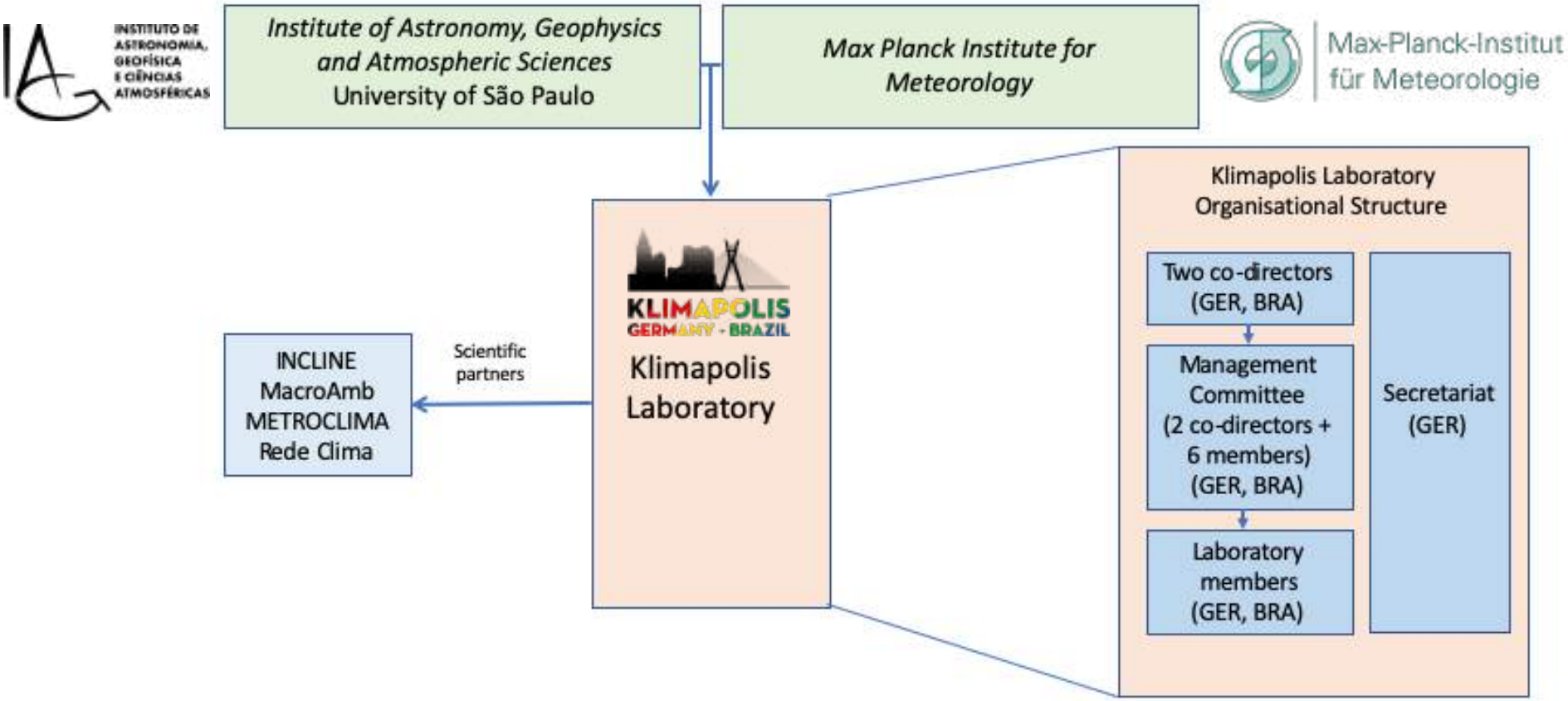
KLIMAPOLIS
GERMANY - BRAZIL

Max-Planck-Institut für Meteorologie

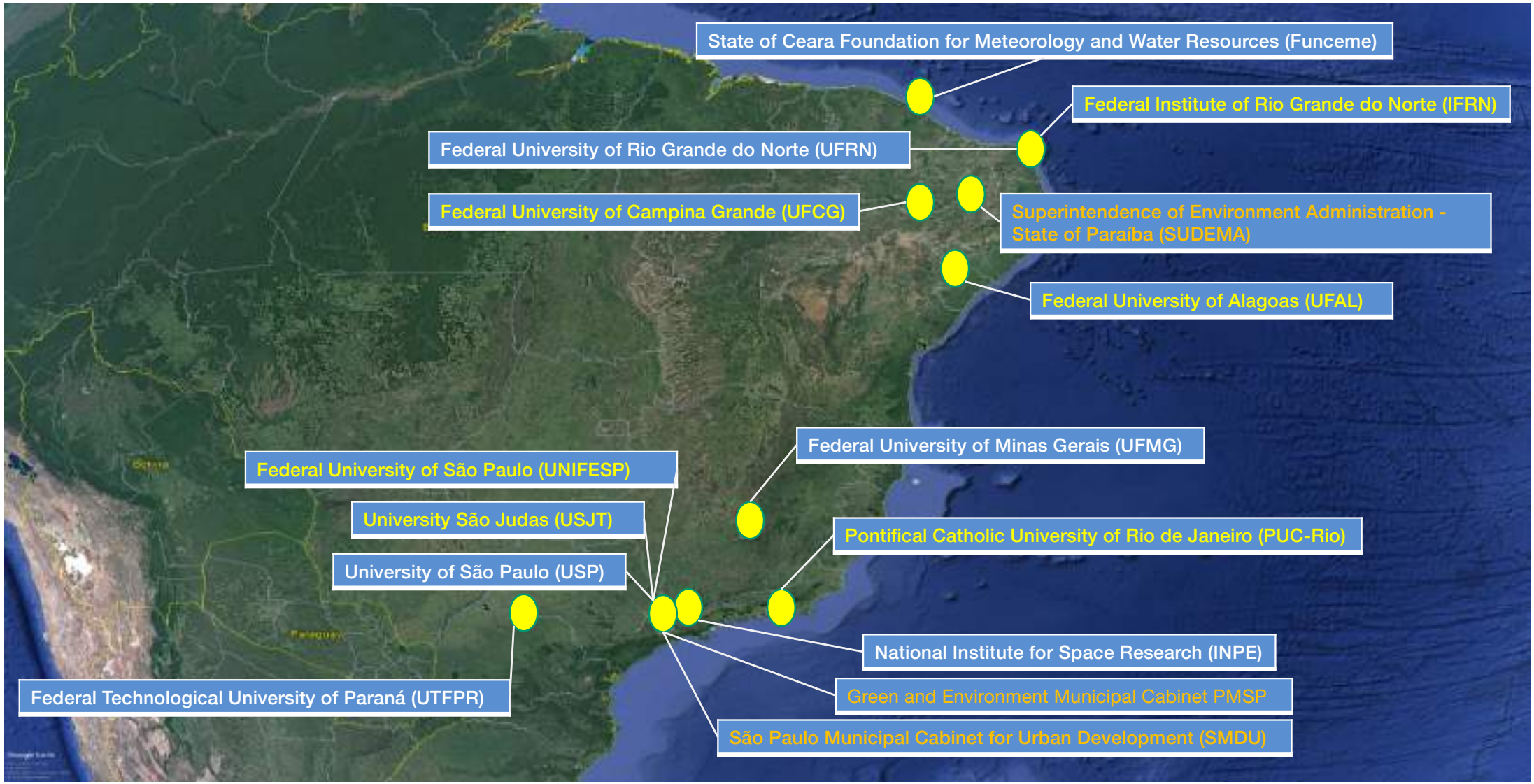
INSTITUTO DE ASTRONOMIA, GEOFÍSICA E CIÊNCIAS ATMOSFÉRICAS

SPONSORED BY THE
Federal Ministry of Education and Research

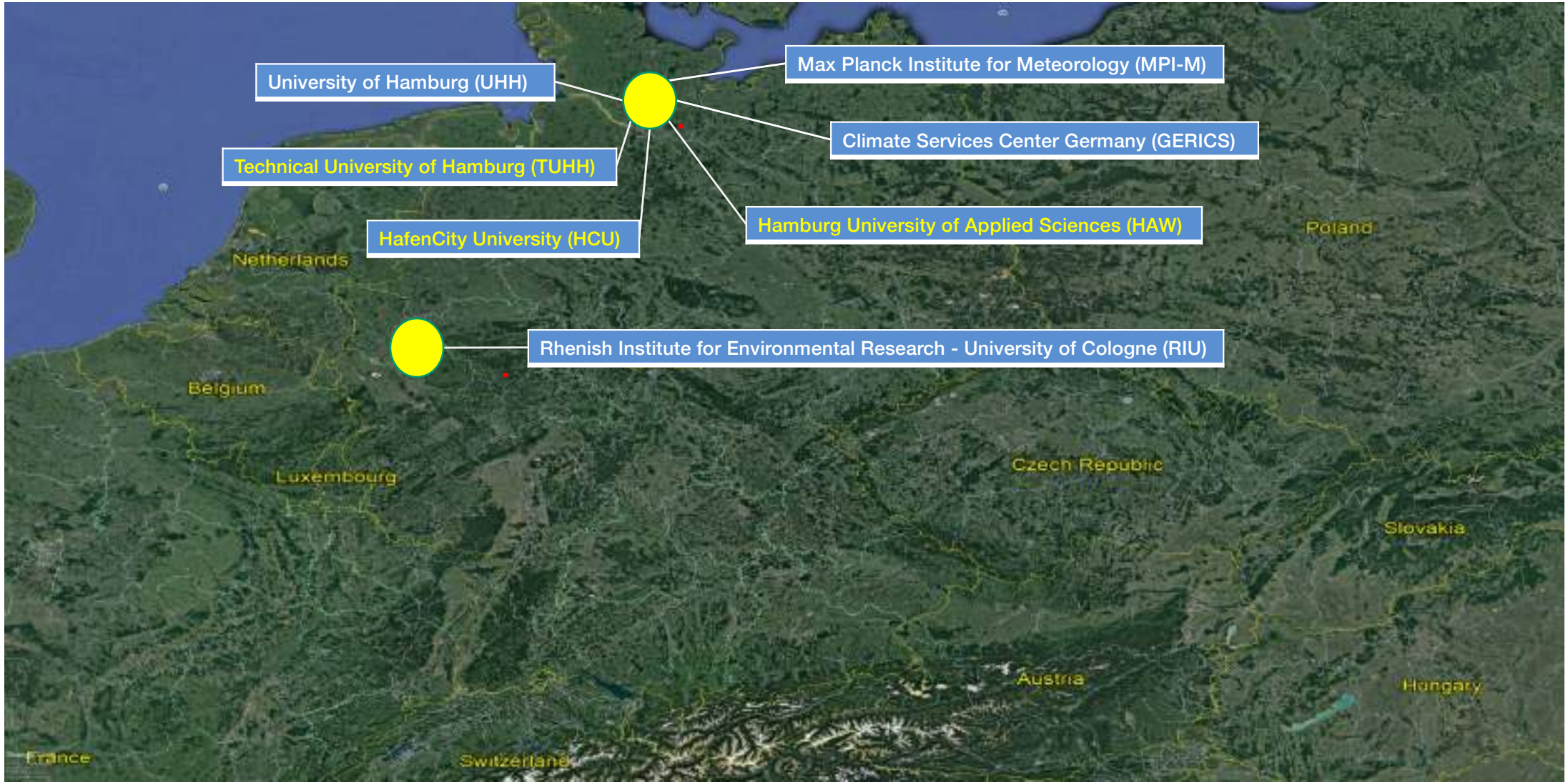
Klimapolis Laboratory Structure



Klimapolis partners - Brazil



Klimapolis partners - Germany



The Laboratory mission

The Klimapolis Laboratory is developing a joint Brazilian-German **transdisciplinary research programme** that, through **sustained dialogues** with different stakeholders, environmental literacy and social learning, will contribute to the development of environmentally resilient cities in Brazil.

Foto: Flickr/Fernando Stankuns

The Laboratory will have special focus on the relation between **climate, water and air pollution and societal actors**, and will co-design with city officials and other urban actors approaches towards the development of sustained cities and improved governance structures.

Research Themes

Research to improve understanding of climate impacts in urban areas

1. Climate change impacts, adaptation and vulnerability
2. Urban climate
3. Flooding, water shortage and other extreme events

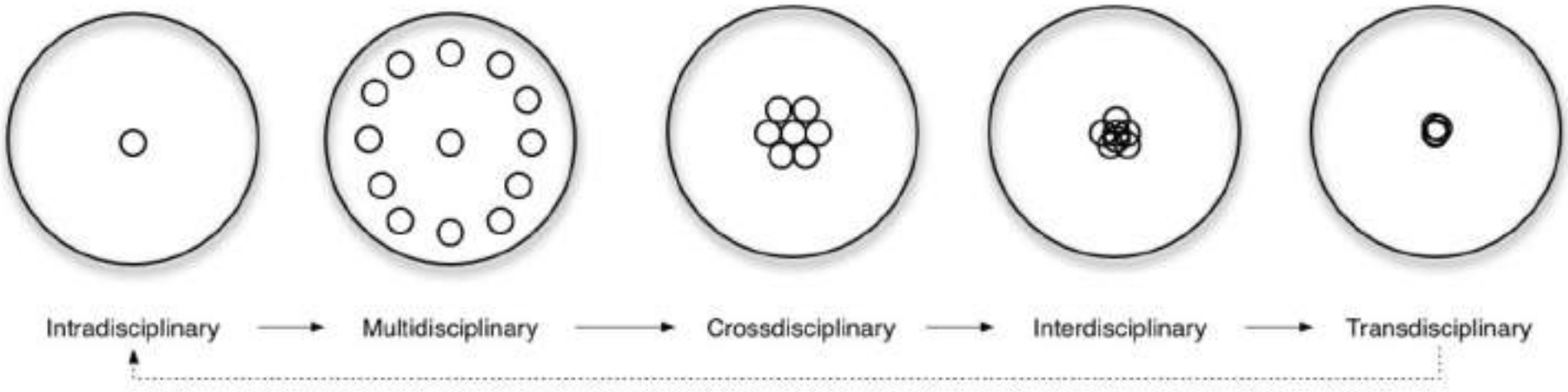
Research to advance understanding of environmental impacts on society

4. Air pollution control and source attribution
5. Urban Health
6. Regional urban footprint

Research to improve urban design and stakeholder engagement

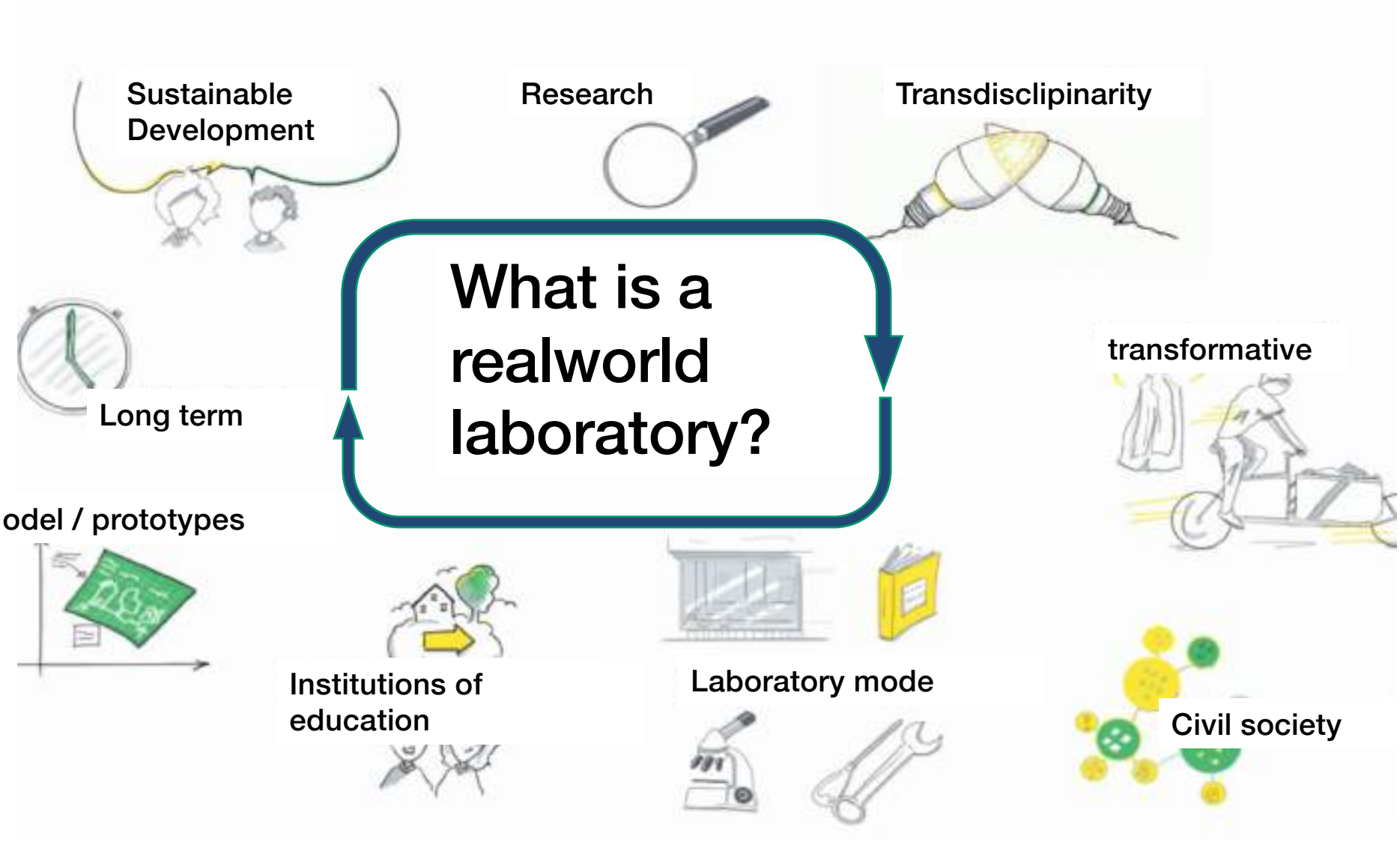
7. Urban planning and design from city to neighbourhood scales
8. Social learning
9. Governance including regulations, procedures, accountability

KLIMAPOLIS
GERMANY - BRAZIL



Courtesy: Martin Kohler (HAW)


Sustainable transformation
Real world experiments
Transdisciplinarity



https://urbaneproduktion.ruhr/netzwerk-reallabore-gegruendet/

Courtesy: Martin Kohler (HAW)

Main joint activities

LAB Itaim PAULISTA

LAB explica

LAB memória

CADA UM ENSINA UM

PAPO do LAB

CIDADE DE SÃO PAULO
SUBPREFEITURA ITAIM PAULISTA

são judas universidade

INSTITUTO DE ASTRONOMIA, GEOFÍSICA E CIÊNCIAS ATMOSFÉRICAS

EACH | USP
Escola de Artes, Ciências e Humanidades
Universidade de São Paulo

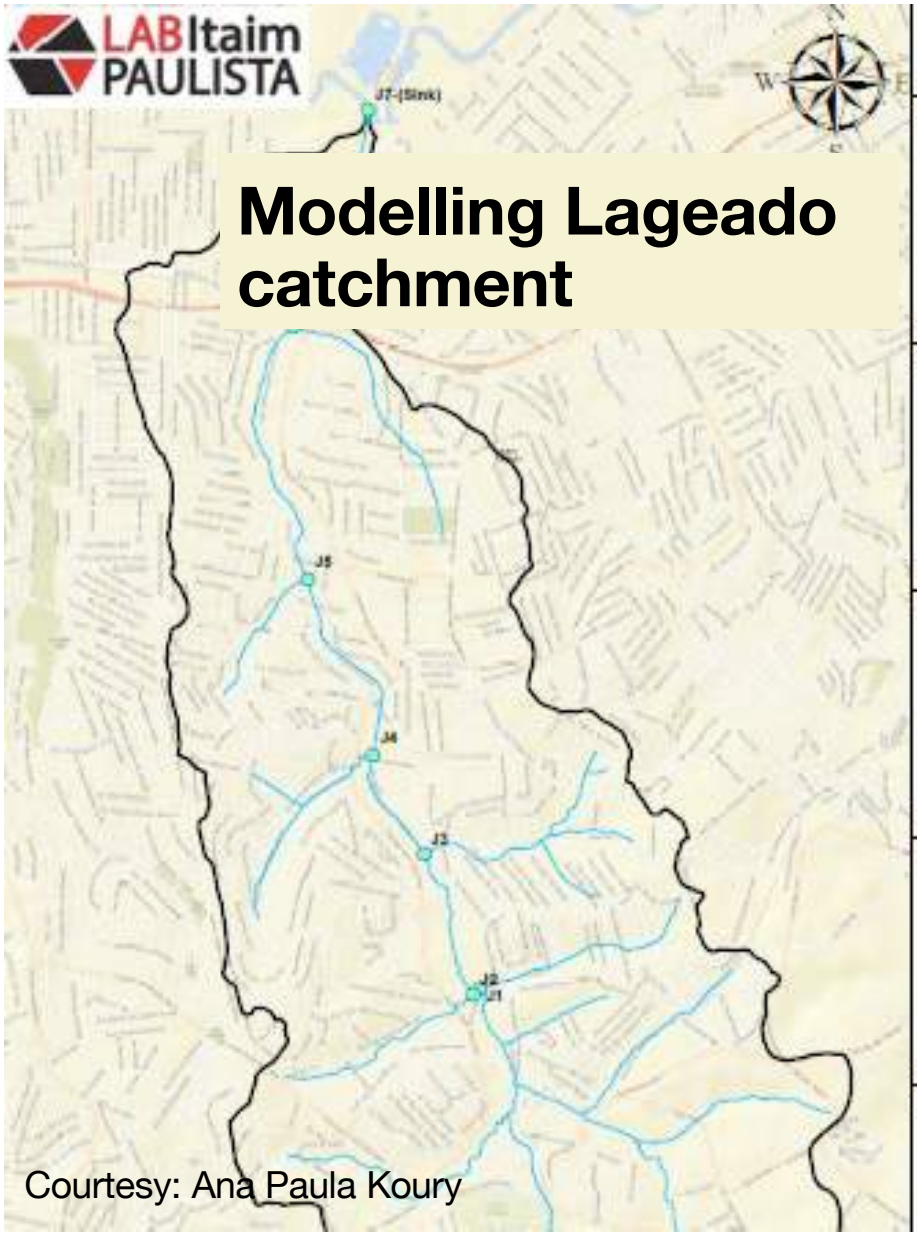
KLIMAPOLIS GERMANY - BRAZIL

Lageado Creek

Lageado Creek Survey: Pedro Herculano Correia, 2019

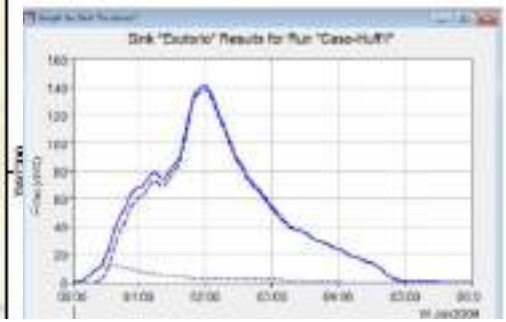
Courtesy: Ana Paula Koury

Modelling Lageado catchment

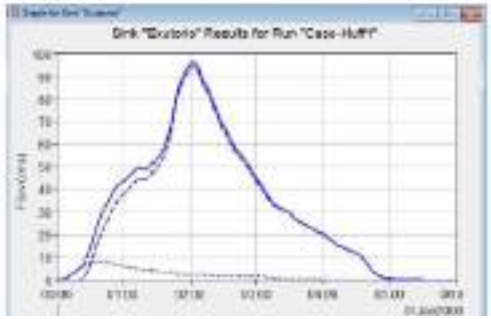


Courtesy: Ana Paula Koury

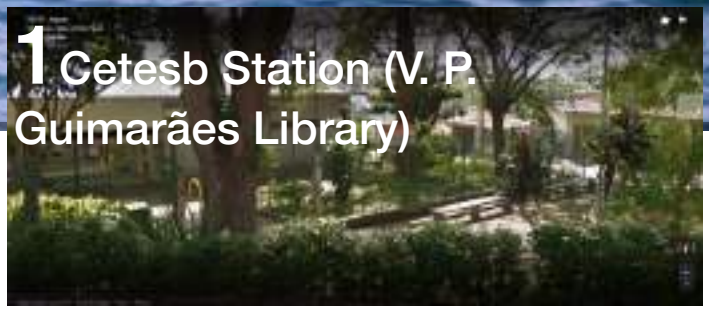
CENARIO 01 – VALOR DE VAZÃO NO EXUTÓRIO



CENARIO 02 – VALOR DE VAZÃO NO EXUTÓRIO



Citizen science



Courtesy: Ana Paula Koury

Main joint activities

Air Quality Model Intercomparison

Max-Planck-Institut für Meteorologie

UFRN
UNIVERSIDADE FEDERAL DO RIO GRANDE DO NORTE

Universität zu Köln

UTFPR
UNIVERSIDADE TECNOLÓGICA FEDERAL DO PARANÁ

UNIFESP
UNIVERSIDADE FEDERAL DE SÃO PAULO

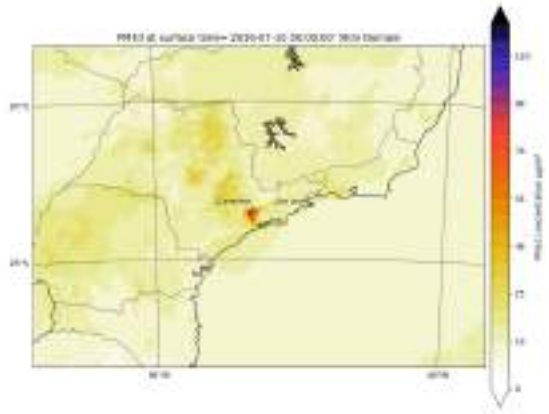
UFMG
UNIVERSIDADE FEDERAL DE MINAS GERAIS

INSTITUTO DE ASTRONOMIA, GEOFÍSICA E CIÊNCIAS ATMOSFÉRICAS

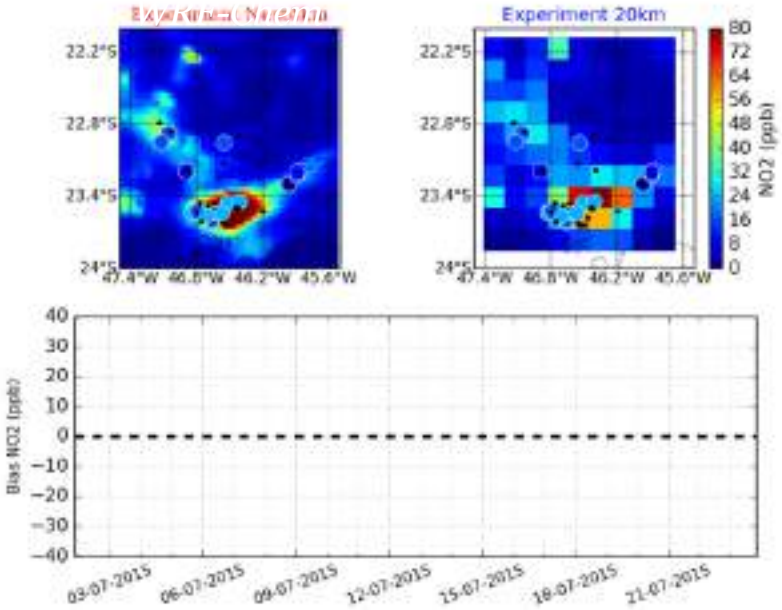
KLIMAPOLIS
GERMANY - BRAZIL

Main joint activities

Towards an Air Quality Forecast System



Courtesy: Ediclê Duarte (UFRN)



Courtesy: Adrien Deroubaix (MPI-M)

Get in touch

klimapolis.net

@KlimapolisLab

@KlimapolisLab