



# forthem.

## *Climate and Resources Lab*

With the support of the  
Erasmus+ Programme  
of the European Union



JG|U



Prof. Dr. Virginia Toy.  
Institut für Geowissenschaften  
Universität Mainz



An introduction for our potential stakeholders

09:00, 08 October 2021

<https://climate-and-resources.forthem.uni-mainz.de/>

<https://www.forthem-alliance.eu/objectives/labs/climate-and-resources/>

# FORTHEM:

- **F**ostering **O**utreach within European **R**egions, **T**ransnational **H**igher **E**ducation & **M**obility
- EU-funded “European University” framework [ERASMUS program]
- A collaboration between groups of EU Universities for joint teaching (student exchange) and research
- A unique aspect of FORTHEM’s EU application was its focus on ‘blended learning’ and ‘virtual mobility’
- FORTHEM’s three ‘Missions’ are *Labs*, *Mobility*, and *Outreach*
- There are 7 Partner institutions, each hosting a Lab + 2 new institutions!





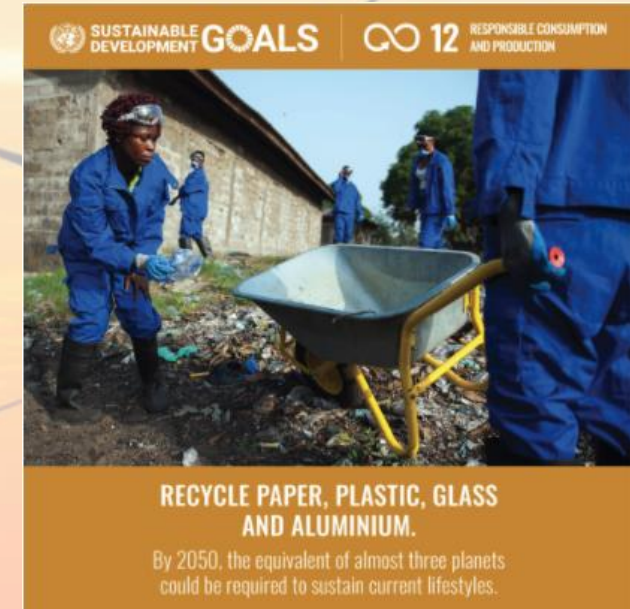
# FORTHEM:

- Explore global challenges
- Stimulate scientific cooperation
- Train open-minded students who will change the world
- Build a common campus that is both physical and virtual
- Develop new joint study programs
- Enhance faculty's capability to teach virtually, taking student feedback into account
- Inspire students to participate in physical and virtual exchanges
- Promote multilingualism
- Communicate in an understandable way to the outside world
- Ensure University teaching and research has an impact in broader society

Lab	Coordinating university	Speaker at the JGU
Experiencing Europe	Uniwersytet Opolski, Poland	Prof. Dr. Arne Niemann, FB 02
Diversity and Migration	Università degli Studi di Palermo, Italy	Prof. Dr. Gerhard Kruip, FB 01
Multilingualism in School and Higher Education	Jyväskylän yliopisto, Finland	Prof. Dr. Sylvia Thiele, FB 05
Food Science	Université de Bourgogne, France	Prof. Dr. Eckhard Thines, FB 10
Digital Transformation	Universitat de València, Spain	Prof. Dr. Petra Ahrweiler, FB 02
Climate and Resources	Universität Mainz	Prof. Dr. Virginia Toy, FB 09
Resilience, Life quality and Demographic Change	Latvijas Universitāte, Latvia	Prof. Dr. Raffael Kalisch, FB 04

# Climate & Resources Lab:

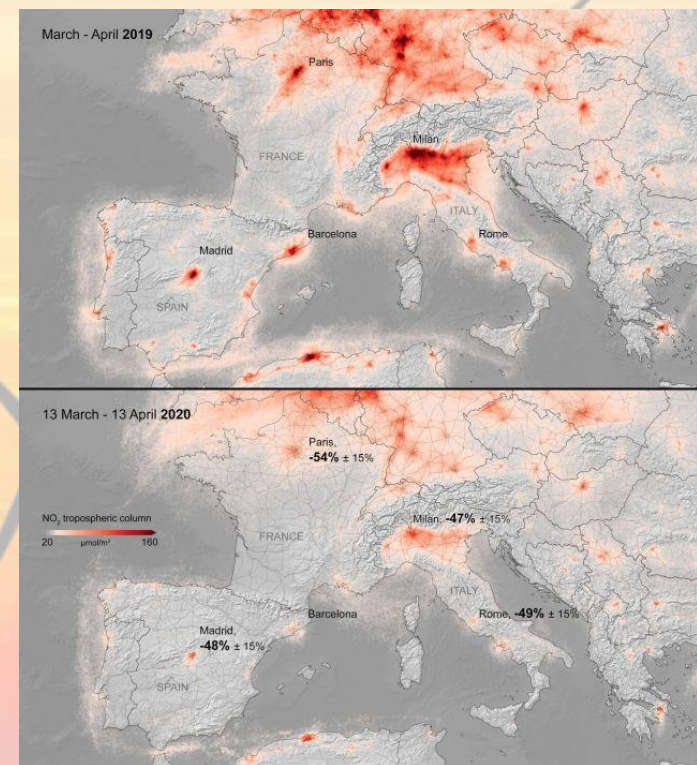
- Established in May 2020
- Led by Universität Mainz
- 80 academic staff members from all 7 FORTHEM partners
- Researchers and teachers in 4 main areas of expertise
- We meet online once a month to co-ordinate our activities and have just started *in person* meetings
- FORTHEM's Climate and Resources lab addresses topics related to climatic change and Earth resources.
- Its members are devoted toward ensuring collaborative education and research (i.e. Citizen Science) enhances societal understanding of these topics, as this will demonstrably build societal resilience to them.





# Topics we address:

- History of climate change: what we can learn?
- How do Earth processes, such as volcanic eruptions and plate tectonics, modify climate?
- Climate change as a driving force of landscape and ecosystem change, and responses of these systems
- Impacts of climate change on resources, such as water and food
- Response of economies, social formations, and human populations to climate change
- Climate change regulations and policies
- Development of approaches for climate change communication and education
- Adaptation tools, strategies, their efficiency and focus
- Alternative energy sources, such as geothermal, wind, tide, and hydro-electric energy
- Sustainability of critical Earth resources needed to respond to and mitigate climate change.
- Tools for low-carbon development, including bioeconomy and alternative energies
- Biorefinery to achieve maximally efficient use of biomaterials
- Carbon budgets of organisations (such as the FORTHEM Alliance)



<https://www.space.com/europe-air-pollution-drop-during-coronavirus-lockdowns.html>  
Accessed 18 May 2020



EUROPEAN COMMISSION

Brussels, 3.9.2020

COM(2020) 474 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability





**forthem.**

*Climate and  
Resources Lab*

# People

<https://climate-and-resources.forthem.uni-mainz.de/team/>

[climate-and-resources.forthem@uni-mainz.de](mailto:climate-and-resources.forthem@uni-mainz.de)

Universität Mainz, Germany

- Prof. Dr. Virginia Toy – Alliance-level lab leader
- Dr. Martina Kirilova – Coordination, especially of research
- Dr. Selina Fenske – Outreach, coordination
- Ms. Emma Kluge – Translation
- Ms. Gretha Boor – Sustainability

Partner Institutions

- Prof. Jan Lundell, Finland ([jan.c.lundell@jyu.fi](mailto:jan.c.lundell@jyu.fi))
- Prof. Māris Klavinš, Latvia ([maris.klavins@lu.lv](mailto:maris.klavins@lu.lv))
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# FOLLOW US

## Websites:

- <https://climate-and-resources.forthem.uni-mainz.de/>
- <https://www.forthem-alliance.eu/objectives/labs/climate-and-resources/>

## Join our mailing list:

- <https://climate-and-resources.forthem.uni-mainz.de/mailling-list/>

