

Interdisciplinary PhD training



COLLEGIO FUTURO

Spring school

From exploring sustainability challenges to
designing evidence-based policy briefs

February - March 2025

Topics

- I. Just transition
- II. Towards a sustainable aquaculture
- III. Ecosystem restoration on marginal land
- IV. Adaptation of historic cities to climate change

Venue

Marsilius-Arkaden

Im Neuenheimer Feld 130.1

69120 Heidelberg

Marsilius Kolleg

[Google map](#)

The event location is on the University Campus *Im Neuenheimer Feld*. The nearest hotels are around the central railway station. Coming from the central railway station (*Hauptbahnhof*) you can reach the venue by taking either the **bus line 20** (direction: *Neuenheim, Sportzentrum Nord*) or the **bus line 32** (direction: *Neuenheim, Kopflinik*) and exiting at stop **Campus Im Neuenheimer Feld** (it takes app. 10 min).

Modules: on-site week, 24 – 28 February 2025

- **Keynote lectures**
- **Group work**
- **Presentation** of the policy brief draft and discussion (Friday, 28 Feb)

The Spring school will begin with **keynote speeches from supervisors and invited guests**, who will offer participants an introduction to all four selected topics and shed light on the major challenges. The overall objective of this session is to improve data literacy by providing insights into four different pressing environmental issues, and to raise awareness of the challenges of ecological transition.

Most of the following sessions will be organized as **group work**. A concept for the policy brief will be developed based on additional, group-specific lectures, discussions and literature search. The supervisors will provide additional information on methods, data sources and tools where necessary to facilitate group work.

For the final day, each group prepares a **20-minute presentation** to give the other groups an overview of their own policy brief. This will give the groups the chance to discuss possible pitfalls and receive additional suggestions.

Lunch and coffee breaks will be provided during the school.

After Spring school in Heidelberg

In the **follow-up to the on-site week in Heidelberg**, and in the preparation for the final meeting, the participants will **finalize a policy brief**. They are free to set time for the collaborative work in a way that suits them best.

The final output may be adjusted according to the suggestions coming from peers and supervisors during the final school session. Group members have to agree who will introduce changes first, and then the draft has to be circulated to all, and all have to agree before submitting the final version to supervisors.

Final meeting

By appointment, March/April 2025, online (app. 1h)

The aim of the meeting is **to discuss the outcome with supervisors and release the policy brief** for publication in the Collegio futuro Blog. The schedule will be arranged in consultation with participants during the Spring school.

The course coordinator will publish the outputs in a blog/online journal connected to the Collegio futuro homepage, after consultation with supervisors. Afterward, the letters of attendance can be issued.

How to prepare for the Spring school

The most important thing is your mind-set. The success of this spring school is largely in YOUR hands. Let your curiosity and initiative drive you, be open to new questions and topics, and engage actively in the many opportunities for interdisciplinary discussion.

Spring school program, 24 – 28 February 2025

24 February 2025: A Big Picture

Conference room

09:30 – 09:55 Registration

09:55 – 10:00 Welcome address

10:00 – 11:30 Keynote: Biodiversity & communication

COP CBD 2024 in Cali: are we on right path to implement Kunming-Montreal strategy for biodiversity?

Policy brief as a communication tool

Prof. Dr. Ladislav Miko (Ministry of the Environment of the Czech Republic & Charles University in Prague), remotely

11:30 – 12:00 Coffee break

12:00 – 13:00 Keynote: Adaptation of historic cities to climate change

Prof. Dr. Marianne Cohen (Sorbonne University)

Dr. Anna Bąkowska (University of Warsaw)

13:00 – 14:30 Lunch

14:30 – 15:30 Keynotes: Towards a sustainable aquaculture

Environmental issues and future challenges of aquaculture

Prof. Dr. Marco Parolini (University of Milan)

Economically Viable? Environmentally Sustainable? Navigating the Waters of Aquaculture Business

Prof. Dr. Luigi Orsi (University of Milan)

15:30 – 16:00 Coffee break

16:00 – 18:00 Group work: setting the scene (parallel sessions)

Group: Just transition

Foyer

16:00 – 18:00 Group discussion

Group: Towards a sustainable aquaculture

Conference room

16:00 – 16:45 Lecture: Delving the environmental sustainability of aquaculture through the Life Cycle Assessment approach

Prof. Dr. Jacopo Bacenetti (University of Milan), remotely

16:45 – 18:00 Group discussion

Supervision: Prof. Dr. Marco Parolini (University of Milan)

Prof. Dr. Luigi Orsi (University of Milan)

Group: Ecosystem restoration on marginal land

Seminar room 1 (ground floor)

16:00 – 18:00 Group discussion

Supervision: Prof. Dr. Jan Frouz (Charles University)

Group: Adaptation of historic cities to climate change

Seminar room 3 (first floor)

16:00 – 18:00 Group discussion

Supervision: Prof. Dr. Marianne Cohen (Sorbonne University)

Dr. Anna Bąkowska (University of Warsaw)

25 February 2025: Specifying the challenge

Conference room

9:00 – 10:00 Keynote: Just Transition - debates and challenges

Jun. Prof. Dr. Rosa Lehmann (Heidelberg University)

Alejandra Irigoyen (Heidelberg University)

Dr. Mariana Ramirez Bustamante (Heidelberg University)

10:00 – 10:30 Coffee break

10:30 – 18:00 Group work: specifying the challenge (parallel sessions)

12:30 – 14:00 Lunch break

15:30 – 16:00 Coffee break

Group: Just transition

Seminar room 1 (ground floor)

10:30 - 18:00 Round table; exchange, literature and data search

Supervision: Jun. Prof. Dr. Rosa Lehmann (Heidelberg University)

Alejandra Irigoyen (Heidelberg University)

Dr. Mariana Ramirez Bustamante (Heidelberg University)

Group: Towards a sustainable aquaculture

Conference room

10:30 – 12:30 Challenges and opportunities in Norwegian aquaculture

The session will start by introducing the framework of Norwegian aquaculture in terms of history, today situation, public management, policy and future scenarios mainly for farmed salmon production in open cages. We will thereafter focus on the main environmental challenges related to traditional aquaculture production like sea lice treatment with

medicament and not-medicament methods. We thereafter end with an overview of future aquaculture practices goal in line with circular economy and blue economy definition and how scientific community in collaboration with policy makers and private and public sector must play a key role for a future more sustainable sea food production.

Dr. Federico Håland Gaeta (NIVA - Norwegian Institute for Water research)

Prof. Dr. Marco Parolini (University of Milan)

14:00 – 18:00 Discussion, exchange, literature and data search

Supervision/Consultation: Prof. Dr. Marco Parolini (University of Milan)

Prof. Dr. Luigi Orsi (University of Milan)

Group: Ecosystem restoration on marginal land

Seminar room 3 (first floor)

10:30 - 18:00 Discussion, exchange, literature and data search

Supervision: Prof. Dr. Jan Frouz (Charles University)

Group: Adaptation of historic cities to climate change

Seminar room 2 (first floor)

10:30 - 18:00 Discussion, exchange, literature and data search

Supervision: Prof. Dr. Marianne Cohen (Sorbonne University)

Dr. Anna Bąkowska (University of Warsaw)

26 February 2025: Developing a concept

9:00 – 18:00 Group Work

10:30 – 11:00 Coffee break

12:30 – 14:00 Lunch break

15:30 – 16:00 Coffee break

Group: Just transition

Seminar room 1 (ground floor)

09:00 – 18:00 Group work: Discussion, literature search, working out the base for a policy brief

Consultation: Alejandra Irigoyen (Heidelberg University)

Group: Towards a sustainable aquaculture

Seminar room 3 (first floor)

09:00 – 18:00 Group work: Discussion, literature search, working out the base for a policy brief

Consultation: Prof. Dr. Marco Parolini (University of Milan)

Prof. Dr. Luigi Orsi (University of Milan)

Group: Ecosystem restoration on marginal land

09:00 – 12:30 Excursion to restored quarries ([google map](#))

The group will visit the **quarry landscape of Rohrbach**, close to Heidelberg, which has been restored and integrated into the UNESCO - protected geo-nature park *Bergstrasse-Odenwald*. The restoration project was the result of a cooperation between several actors from the region, including the geo-nature park, the local NGOs, and the city of Heidelberg. The tour will be guided by the representatives of the participating organizations, Ms. Winter-Horn, a communication expert, and Mr. Babist, a geologist.

The location is easy to reach by public transport. Details about the connections will be announced during spring school. Participants are kindly asked to bring weatherproof clothing suitable for a short walk in nature.

14:00 – 18:00 **Group work:** Literature and data search, working out the base for a policy brief

Conference room

Supervision: Prof. Dr. Jan Frouz (Charles University)

Group: Adaptation of historic cities to climate change

09:00 – 12:30 **Group work:** Literature and data search, working out the base for a policy brief

Conference room

Consultation: Prof. Dr. Marianne Cohen (Sorbonne University)

Dr. Anna Bąkowska (University of Warsaw)

14:00 – 18:00 **Excursion to the Old Town**

Lecture room 12 (first floor), Neue Universität, Grabengasse 3 – 5 ([google map](#))

14:30 – 16:00 Exchange and discussion with the representatives from the Heidelberg Office for Building Law and Monument Protection

Talk: Living in a Museum? - Conservation of Historic Cities from an Administrative Viewpoint

Adrian Seifried M. A.

(Heidelberg Office for Building Law and Monument Protection)

A walk through the Old Town – visit of an example location

Q&A (lecture room)

16:00 – 18:00 Group discussion, literature and data search, working out the base for a policy brief

27 February 2025: Developing a concept

9:00 – 18:00 **Group Work:** Discussion, working out the base for a policy brief

10:30 – 11:00 Coffee break

12:30 – 14:00 Lunch break

15:30 – 16:00 Coffee break

18:00 Pizza Evening

Group: Just transition

Seminar room 1 (ground floor)

Consultation: Dr. Mariana Ramirez Bustamante (Heidelberg University)

Group: Towards a sustainable aquaculture

Foyer

Group: Ecosystem restoration on marginal land

Conference room

Group: Adaptation of historic cities to climate change

Seminar room 3 (first floor)

Consultation: Prof. Dr. Marianne Cohen (Sorbonne University)

Dr. Anna Bąkowska (University of Warsaw)

28 February 2025: Group reports & discussion - Policy brief concept

Conference room

09:00 – 09:45 Group I: Just transition

09:45 – 10:30 Group II: Towards a sustainable aquaculture

10:30 – 11:00 Coffee break

11:00 – 11:45 Group III: Ecosystem restoration on marginal land

11:45 – 12:30 Group IV: Adaptation of historic cities to climate change

12:30 – 13:00 Closing

13:00 Lunch & Farewell

Group rooms overview

Group	Mon, 24 Feb	Tue, 25 Feb	Wed, 26 Feb	Thu, 27 Feb
JustTran	<i>Foyer</i>	<i>Seminar room 1 (ground floor)</i>	<i>Seminar room 1 (ground floor)</i>	<i>Seminar room 1 (ground floor)</i>
AquaCul	<i>Conference room</i>	<i>Conference room</i>	<i>Seminar room 3 (first floor)</i>	<i>Foyer</i>
EcoRest	<i>Seminar room 1 (ground floor)</i>	<i>Seminar room 3 (first floor)</i>	<i>Excursion Conference room</i>	<i>Conference room</i>
CityClimate	<i>Seminar room 3 (first floor)</i>	<i>Seminar room 2 (first floor)</i>	<i>Conference room Excursion</i>	<i>Seminar room 3 (first floor)</i>

Program overview

Monday, 24 Feb	Tuesday, 25 Feb	Wednesday, 26 Feb	Thursday, 27 Feb	Friday, 28 Feb
<i>A big picture</i>	<i>Specifying a challenge</i>	<i>Developing a concept</i>		<i>Reporting</i>
09:30 Registration 09:55 Welcome address 10:00 Keynote- EcoRest (Ladislav Miko) 11:00 How to draft a policy brief (Ladislav Miko)	09:00 Keynote- JustTran (Rosa Lehmann, Alejandra Irigoyen, Mariana Ramírez Bustamente)	09:00 – 18:00 Group work (parallel sessions) *09:00 - 12:30 EcoRest Excursion Rohrbach Quarry (Geo-Nature Park Bergstraße-Odenwald)	09:00 – 18:00 Group work (parallel sessions)	09:00 - 09:45 Group I: JustTran 09:45 - 10:30 Group II: AquaCul
<i>11:30 Coffee break</i>	<i>10:00 Coffee break</i>	<i>10:30 Coffee break</i>	<i>10:30 Coffee break</i>	<i>10:30 Coffee break</i>
12:00 Keynote- CityClimate (Marianne Cohen & Anna Bąkowska)	10:30 – 18:00 Group work (parallel sessions) *10:30 - 18:00 JustTran Round table (Rosa Lehmann & colleagues) *10:30 -12:30 AquaCul Lecture & disc. Federico Håland Gaeta	<i>Group work continued</i>	<i>Group work continued</i>	11:00 - 11:45 Group III: EcoRest 11:45 - 12:30 Group IV: CityClimate 12:30 Closing
<i>13:00 Lunch</i>	<i>12:30 Lunch</i>	<i>12:30 Lunch</i>	<i>12:30 Lunch</i>	<i>13:00 Lunch</i>
14:30 Keynote- AquaCul (Marco Parolini & Luigi Orsi)	<i>Group work continued</i>	<i>Group work continued</i> *14:00-18:00 CityClimate Excursion Old Town	<i>Group work continued</i>	<i>Farewell, end of Spring school</i>
<i>15:30 Coffee break</i>	<i>15:30 Coffee break</i>	<i>15:30 Coffee break</i>	<i>15:30 Coffee break</i>	
16:00 – 18:00 Group work (parallel sessions) *16:00 -16:45 AquaCul Lecture (Jacopo Bacenetti)	<i>Group work continued</i>	<i>Group work continued</i>	<i>Group work continued</i>	

*Group-specific contributions are marked in colours

18:00 Pizza-Evening

Information on Speakers

Invited keynote speakers:

(in order of appearance)

Prof. Dr. Ladislav Miko (Ministry of the Environment of the Czech Republic & Charles University in Prague)



Ladislav Miko is a Czech soil biologist, ecologist and environmentalist, specialised in soil ecology and biology of soil mites (over 70 scientific papers, author or co-author of several books and documentary films, many popular publications). He is teaching ecology, environmental sciences and restoration ecology at Charles University in Prague and Antwerp University in Belgium.

In 1989, he participated in Velvet Revolution and after political change entered into politics in Czechoslovakia and later in the Czech Republic. He was serving as Deputy Minister (2003 to 2005) and Minister (2009) of Environment of the Czech Government.

Since 2005 he was appointed as Director for Biodiversity at DG Environment, from 2011 to 2017 as Deputy Director General and Acting Director General of DG Health and Food Safety of European Commission. From 2018 to 2021 he was appointed as Head of EC Representation of Slovakia.

From March 2022 was seconded to Czech Government and pending Czech Presidency to European Council, where he works as Advisor to Minister of Environment and special envoy of Czech Government for international negotiations Biodiversity and Ecosystem Services.

Prof. Dr. Luigi Orsi (University of Milan)



Luigi Orsi serves as an Associate Professor at the University of Milan's Department of Environmental Science and Policy, where he lectures on Environmental Accounting and Management. He earned his PhD in Corporate Finance and Management from the same university. His scientific pursuits lie in innovation and green technology management, focusing primarily on patent intelligence and strategic alliances. More recently, his work has expanded to encompass sustainable supply chain studies.

Jun. Prof. Dr. Rosa Lehmann (Heidelberg University)



Rosa Lehmann is a junior professor "Innovation and Sustainability" at the Heidelberg Center for Ibero-American Studies, and affiliated with the Heidelberg Center for the Environment and the Institute for Geography. She studied Anthropology and Political Science and holds a PhD in Political Science from Freiburg University. Her works concentrate on conflicts, inequalities and multiscalar processes around the transition to renewable energies and a bioeconomy, the spatialities of energy transition, and debates around just transitions, all from a perspective of Political Ecology. Her regional focus is on Mexico, Chile, and Germany.

Invited speakers and external partners for groups:

Group: Just transition

Dr. Mariana Ramirez Bustamante (Heidelberg University)



Mariana Ramirez Bustamante is a postdoctoral researcher for the project “The Public Negotiation of Justice in Transition to Sustainability” (JUTSY). She is PhD in Political Science from Vanderbilt University. Her work focuses on public opinion and political behavior, with an emphasis on the Latin American region.

Alejandra Irigoyen (Heidelberg University)



Alejandra Irigoyen is a researcher for the project “The Public Negotiation of Justice in Transitions to Sustainability (JuTSy)” funded by the Heidelberg Center for the Environment (HCE). She is also a doctoral candidate at the Faculty of Chemistry and Earth Sciences, supervised by HCIAS Jun.-Prof. Dr. Rosa Lehmann. Her dissertation project “Local Governments and Climate Governance in Chile: Interrelations of Global, National and Local Scales Around Adaptation and Mitigation Strategies” examines the interrelations and arrangements across different scales and the role and strategies of Chilean municipalities in climate governance schemes.

Group: Towards a sustainable aquaculture

Prof. Dr. Jacopo Bacenetti (University of Milan)



Jacopo Bacenetti graduated in Plant Production and Protection Sciences and obtained his PhD in Technological Innovation for Agricultural, Environmental and Food Sciences. His research activity is related to the agricultural engineering sector where his main focus is the assessment of the technical, operative, energetic and environmental sustainability of the various production chains by applying the life cycle assessment approach. His research activities in the field of aquaculture focus on the assessment of the economic, environmental and social sustainability of the different aquaculture systems,

both inland and offshore, with freshwater and marine species.

Dr. Federico Håland Gaeta is working as scientist at NIVA with the aim to contribute to a knowledge based blue growth. Federico’s field of expertise is sustainable aquaculture, spatial planning and water chemistry.

Group: Sustainable land use - ecosystem restoration on marginal land

Larissa Winter-Horn, Graduate designer (FH) communication design

Ms. Winter-Horn is primarily responsible for press and public relations/graphics at the Bergstrasse-Odenwald Geo-Nature Park.

Voluntary, she is the first chairwoman and project manager of the *Fruit, Garden and Wine Growing Association Heidelberg-Rohrbach e.V.*, which initiated the wine and culture adventure trail in Heidelberg-Rohrbach and realized it together with the city of Heidelberg and the Bergstrasse-Odenwald Geo-Nature Park.

Group: Adaptation of historic cities to climate change

Adrian Seifried M. A. (Heidelberg Office for Building Law and Monument Protection)

Adrian has received his bachelor's degree in European art history at the University of Heidelberg in 2021, and his master's degree in "Heritage conservation" at the University of Bamberg and the Coburg University of applied sciences and arts in 2023. Currently, he is primarily responsible for the repair of endangered monuments in the Office for Building Law and Monument Protection in Heidelberg and is involved in issuing permits in accordance with the Monument Protection Act.

Collegio futuro project partners and supervisors:

Dr. Anna Bąkowska



University of Warsaw

Faculty of Geology,
Department of Environmental Protection and Natural Resources,
Zwirki i Wigury 93, 02-089 Warsaw

Email: anna.bakowska@uw.edu.pl

Position: Assistance Professor

Collegio futuro: Lecture and project supervision / Adaptation of cities to climate change

Support for participants at the University of Warsaw

Geology

Engineering Geology, Environmental Geology, Soil Mechanics, Soil-Structure Interaction, Geohazards

Prof. Dr. Marianne Cohen



Sorbonne University

UFR Géographie et Aménagement
191 rue Saint Jacques, 75005 Paris

Email: marianne.cohen@sorbonne-universite.fr

Position: Full professor

Collegio futuro: Lecture and project supervision / Adaptation of cities to climate change

Support for participants at the Sorbonne University

Geography, Environment

Prof. Mgr. Ing. Jan Frouz, CSc.



Charles University

Institute for Environmental Studies
 Faculty of Science
 Benátská 2, 128 43 Praha 2

Email: jan.frouz@natur.cuni.cz

Position: Director of the Environment Center at the Charles University

Collegio futuro: Keynote lecture and project supervision / Ecosystem restoration

Support for participants at the Charles University

Ecosystem ecology and ecosystem restoration

Soil ecology, Sustainable use of natural resources

Prof. Dr. Marco Parolini



University of Milan

Department of Environmental Science and Policy
 Via Celoria 26, I-20133, Milan (Italy)

Email: marco.parolini@unimi.it

Position: Associate Professor

Collegio futuro: Keynote lecture and project supervision / Sustainable aquaculture

Support for participants at the University of Milan

Ecology and ecotoxicology

My research activity moves in the field of ecology and ecotoxicology, with a focus on the evaluation of the presence, distribution, fate and toxicity of legacy and emerging contaminants in aquatic and terrestrial ecosystems.

Dr. Tatjana Peskan-Berghöfer



Heidelberg University

Heidelberg Center for the Environment (HCE)
Im Neuenheimer Feld 130.1, 69 120 Heidelberg

Email: tanja.peskan@cos.uni-heidelberg.de

Position: Science coordinator / 4EU+

Collegio futuro: Collegio futuro coordinator and supervisor

Learning concepts in Graduate Education

Research background: Plant - microbe symbiosis and plant stress biology

Senior Prof. Dr. Thomas Rausch



Heidelberg University

Heidelberg Center for the Environment (HCE) & Centre for Organismal Studies (COS)
Im Neuenheimer Feld 360, 69 120 Heidelberg

Email: thomas.rausch@cos.uni-heidelberg.de

Position: Managing Director/ Heidelberg Center for the Environment

Former Managing Director of the Marsilius Kolleg
(Heidelberg center of advanced study)

Collegio futuro: Project supervision / Climate action science

Support for participants at the Heidelberg University

Plant molecular physiology

Focus on stress physiology of agronomic plants

Acknowledgements:

We would like to thank the external partners Geo-Nature Park *Bergstrasse-Odenwald* and the City of Heidelberg, all invited guests as well as all colleagues from the partner universities for their participation, their commitment and their support of the Collegio futuro program.

We would like to thank the colleagues from *Heidelberg Center for the Environment* and *Marsilius Kolleg* for supporting us during the event.



UNIVERZITA
KARLOVA



UNIVERSITÀ
DEGLI STUDI
DI MILANO



SORBONNE
UNIVERSITÉ



UNIWERSYTET
WARSZAWSKI



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386