

Interdisciplinary PhD training



# Collegio futuro

**Class 2023/24**

**Program overview**

**October 2023 – January 2024**

# Collegio futuro

## A college for designers of a sustainable European future

Reaching the sustainable development goals of the United Nations and coping with major planetary problems, such as climate change and biodiversity loss, requires a socio-economic transformation that ensures sustainable development. In this transformation, multiple societal stakeholders have to be involved. Conceptualizing this process demands an integration of perspectives from different research disciplines and needs creative and open-minded experts, who do not hesitate to step out of their comfort zone and collaborate in an interdisciplinary manner, striving for the best solutions. As a joint interdisciplinary PhD college of the 4EU+ member universities, the *Collegio Futuro* seeks to foster these skills, which are essential for tackling our urgent environmental, economic and societal challenges.

Participants will work in multidisciplinary groups to develop solutions for hands-on environmental issues with the goal of practicing a policy brief drafting. They will have an opportunity to exchange with their peers and examine the chosen problem from different perspectives. They will engage in discussions with scientists and practitioners in order to identify and propose feasible solutions to given problems. Altogether, the participants will engage in activities that will enable them to expand their network, generate impulses for new projects and improve their competences in science communication to the society.

Collegio futuro is aimed at doctoral students from all research disciplines who seek to expand their knowledge beyond their own research area, with the goal of

- strengthening competencies in interdisciplinary communication and project elaboration,
- empowering students to transfer their knowledge and expertise to different contexts,
- promoting critical and system thinking,
- raising awareness for the challenges of socio-economic transformation,
- encouraging communication of scientific findings to civil society.

## Topics

- **Greening of cities – adaptation of cities to climate change and biodiversity loss**
- **Towards a sustainable aquaculture**
- **Sustainable land use - ecosystem restoration on marginal land**

## Program

- **One-day preparatory workshop: 18 October 2023, online**
  - Introductory lectures and getting together
- **Autumn school: 20 – 24 November 2023, on-site in Heidelberg**
  - Development of a concept
- **Individual & group work (self-organized): December 2023 – January 2024, online**
  - Finalization of the policy brief
- **One-day final workshop: 25 January 2024, online**
  - Presentation of results and discussion of the outcome with scientists and policy makers

## Topics

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### **Towards a sustainable aquaculture (AqaCul)**

Over the past half-century, aquaculture production has grown rapidly in many parts of the world. Aquaculture is the fastest-growing food-production technology, now globally accounting for more fish biomass than capture fisheries if non-edible amounts are included. Most of this development has occurred during the last 50 years, and thus sustainability, particularly environmental sustainability, has evolved into a growing concern. Attention has been increasingly devoted to the enhancement of awareness for environmental issues and the corresponding implementation of practices designed to reduce the environmental impact of aquaculture. Nowadays, whether aquaculture production should be managed in an environmentally responsible and sustainable fashion is no longer a question.

In the scope of this topic, the course participants will take a closer look at aquaculture current challenges, with a specific focus on ecological, environmental and economic impact. The policy brief should provide a concept to increase the sustainability of aquaculture activities, identifying issues that could be addressed by eco-certification criteria, supporting thereby continuous improvement of industry best practices. Furthermore, the concept could incorporate criteria related to the far-field effects of aquaculture, recognizing and accounting for the impact of local conditions on farming.

### **Greening of cities – adaptation of cities to climate change and biodiversity loss (CityClimate)**

Worldwide, more than a half of the global population lives in cities, and the number is projected to grow up to two-thirds of people living in urban areas by 2050. Cities are major drivers of climate change and are largely responsible for global energy and resource consumption. On the other hand, climate change seriously jeopardizes urban life, especially by causing a warming trend which is further reinforced by dense urbanization and absence of vegetation. The phenomenon of urban “heat islands” amplifies the effect of heatwaves posing a risk to human health and wellbeing. This effect can be counteracted by clever construction solutions and implementation of green zones, urban parks and water bodies, which provide cooler temperatures and improve the living quality of city residents.

In the scope of this topic, the course participants will take a closer look at public spaces in a dense urban area from the point of view of different disciplines, and examine the criteria for planning of green zones with respect to the climate resilience, social needs and interactions. They will consider the function of urban green in terms of cooling effects, biodiversity and social impact. The policy brief should provide a concept for evaluation or redevelopment and suggest a path to successful green urban areas taking into account different issues (e.g. citizen participation and engagement, funding, legal requirements, etc.).

## Sustainable land use - ecosystem restoration on marginal land (EcoRest)

The human population is currently using about 75% of ice-free land. However, the land left for nature is typically concentrated in biomes that have low productivity, such as deserts, high mountains, tundra, and so on. Consequently, primary production in these wildernesses is about 11% of global primary production.

Many initiatives emphasize the importance of restoring natural ecosystems to stop the decrease of biodiversity, combat global climate change, and improve ecosystem service provisioning. This is happening in the context of increasing pressure on existing land to provide food, fuel, fibre, drinking water, and other resources for a growing human population.

In this topic, we will explore the possibility of marginal land serving as suitable land for the restoration of natural ecosystems and ecosystem services. Marginal land, such as land degraded by mining, civil engineering, industrial activities, or intensive agriculture, has typically low economic value. Soils in these ecosystems may be depleted of nutrients and organic matter, and vegetation may be destroyed. This might form a barrier for commercial use in agriculture but represents very suitable starting conditions to restore a natural ecosystem. We will explore the advantages and constraints of using marginal land for the restoration of natural habitats. We will also outline possible measures to eliminate constraints and strengthen the advantages of this approach.

## One-day preparatory workshop

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18 October, 2023, online

The goal of this workshop is to provide the participants with insights in Collegio futuro topics and to give an introduction to science communication. Furthermore, the working groups will be formed according to the participants' preferences given during the application process. The participants will have a chance to introduce themselves, get to know each other, and tell their peers about their PhD projects and their expertise.

## Autumn school

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20 -24 November, 2023

**International Academic Forum Heidelberg (IWH), Hauptstraße 242, 69117 Heidelberg**

The Autumn school will begin with keynote speeches from supervisors and invited guests, who will offer participants an introduction to all three selected topics and shed light on the major challenges. The overall objective of this session is to improve data literacy by providing insights into three different pressing environmental issues, and to raise awareness of the challenges of ecological transition. The final session of the program on the first day will be a workshop in a world-café-format, where all participants will have a chance to discuss all three topics and work out the crucial points for communication to policymakers.

The most of the following sessions will be organized as group work. A concept for the policy brief will be developed based on additional 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 will prepare a short 15-minute presentation to give other groups an overview of their own policy brief concept. This will give the groups an opportunity to discuss possible pitfalls and receive additional suggestions.

### 20 November 2023: A Big Picture (a joint session, all groups)

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*Conference room*

08:30 Registration

09:00 Welcome address

#### **09:15 – 10:15 Keynotes/Greening of cities – adaptation to climate change**

09:15 – 10:00 [Designing cities resilient to climate change and the biodiversity crisis: scientific principles and political implementation](#)

*Prof. Dr. Luc Abbadie (Sorbonne University)*

10:00 – 10:45 [Sustainable urban development – a critical perspective](#)

*Prof. Dr. Ulrike Gerhard (Heidelberg University)*

10:45 – 11:15 Coffee break

## 11:15 – 13:00 Keynotes/ Towards a sustainable aquaculture

11:15 – 11:45 Environmental issues and future challenges of aquaculture

*Prof. Dr. Marco Parolini (University of Milan)*

11:45 – 12:30 Delving the environmental sustainability of aquaculture through the Life Cycle Assessment approach" (online)

*Prof. Dr. Jacopo Bacenetti (University of Milan)*

12:30 – 13:00 Economically Viable? Environmentally Sustainable? Navigating the Waters of Aquaculture Business

*Prof. Dr. Luigi Orsi (University of Milan)*

13:00 – 14:30 Lunch

## 14:30 – 15:30 Keynote/ Sustainable land use - ecosystem restoration on marginal land

*Prof. Dr. Jan Frouz (Charles University)*

15:30 – 16:00 Coffee break

**16:00 – 18:00 Workshop:** Identify the crucial issues in addressing policy makers

(Format: world café)

## 21 November 2023: Specifying a challenge (group work, parallel sessions)

### Group: Towards a sustainable aquaculture

*Conference room*

## 9:00 – 12:30 Challenges and opportunities in Norwegian aquaculture

10:30 – 11:00 Coffee break

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. As part of the not-medicament methods, in collaboration with the cleaner fish farm "Land based Aquaculture" the technician and biologist N. Ghinassi will give us an insight into cleaner fish practice and challenges. 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.

### Speakers:

*Prof. Dr Marco Parolini (University of Milan)*

*Dr. Federico Håland Gaeta (researcher in the aquaculture section of NIVA - Norwegian Institute for Water research)*

*Dr. Noemi Ghinassi (technician and biologist at Land based Aquaculture Norway AS)*

12.30 – 14:00 Lunch break

### **14:00 – 15:30 Documentaries**

15:30 – 16:00 Coffee break

### **16:00 – 18:00 Group work**

## **Group: Greening of cities – adaptation of cities to climate change and biodiversity loss**

*During the day two, the CityClimate group will be accommodated in the Workshop room of „Bürgerzentrum“ in the city district Heidelberg-Bahnstadt. (Gadamer Platz 1, 69115 Heidelberg, ground floor)*

### **09:00 – 10:30 Keynote lectures**

09:00 -09:45 How greening strategies and urbanization shape urban heat islands and environmental inequalities – lessons learned from comparison London – Paris

*Prof. Dr. Marianne Cohen (Sorbonne University)*

09:45 – 10:30 Geological factors in urban planning

*Dr. Anna Bąkowska (University of Warsaw)*

10:30 – 11:00 Coffee break

### **11:00 – 15:00 Walking tour/Bahnstadt**

“Criteria and measures of sustainable urban development”

*Prof. Ulrike Gerhard/ Dr. Editha Marquardt (Heidelberg University)*

Inputs: *Ms. Petra Eggensperger, a representative of citizen community in Bahnstadt*

12:00 – 13:30 Lunch

### **15:00 – 16:30 Challenges of urban planning**

*Meeting with Mr. Moritz Bellers (City of Heidelberg planning department)*

*Discussion with Mr. Moritz Bellers and Ms. Petra Eggensperger*

### **16:30 – 18:00 Group work: wrap-up**

## **Group: Sustainable land use - ecosystem restoration on marginal land**

*Workshop room*

### **09:00 - 18:00 Group work: specifying the challenge**

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

10:30 Coffee break

12:30 Lunch break

15:30 Coffee break

## 22 November: Developing a concept (group work, parallel sessions)

### Group: Sustainable land use - ecosystem restoration on marginal land

#### 09:00 – 10:30 Group work *(Conference room)*

Discussion and prearrangement for excursion

#### 10:30 – 13:30 Excursion to restored quarries

13:30 Lunch break

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 Dr. Thomas Trabold, an agronomist and chairman of the NGO *Heidelberger Biotopschutz e.V.*, which is committed to the preservation and connection of natural habitats in Heidelberg.

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

#### 14:30 – 18:00 Group work *(Conference room)*

15:30 Coffee break

Literature and data search, working out the base for a policy brief

### Group: Towards a sustainable aquaculture

### Group: Greening of cities – adaptation of cities to climate change and biodiversity loss

#### 09:00 - 18:00 Group work: Literature and data search, working out the base for a policy brief

*(AquaCul: Workshop room; CityClimate: Conference room)*

10:30 Coffee break

13:00 Lunch break

15:30 Coffee break

## 23 November: Developing a concept (keynote & group work)

### All groups

#### 09:00 – 10:30 Keynotes: Biodiversity & communication *(Conference room)*

Towards the UN Biodiversity Conference 2024 - implementation of the EU biodiversity strategy and prospects for reaching the global goals and targets for 2030 and 2050

Policy brief as a communication tool

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

10:30 – 11:00 Coffee break



### Group: Sustainable land use - ecosystem restoration on marginal land

**11:00 – 12:30 Round Table with Prof. Ladislav Miko** (*Workshop room*)

Nature protection and communication to policy makers

12:30 – 14:00 Lunch

**14:00 - 18:00 Group work** (*Workshop room*)

15:30 Coffee break

Literature and data search, working out the base for a policy brief

### Group: Towards a sustainable aquaculture

### Group: Greening of cities – adaptation of cities to climate change and biodiversity loss

**11:00 - 18:00 Group work** (*parallel sessions*)

Literature and data search, working out the base for a policy brief

(*AquaCul: Conference room; CityClimate: Conference room*)

12:30 Lunch break

15:30 Coffee break

## 24 November 2023: Finalizing a concept

### All groups

**09:00 – 11:00 Group reports & discussion: Policy brief concept** (*Conference room*)

09:00 AquaCul

09:40 CityClimate

10:20 EcoRest

11:00 – 12:00 Coffee break & snacks

**12:00 – 13:00 Groups' final tuning & Farewell**

(*AquaCul: Workshop room; CityClimate: Conference room; EcoRest: Conference room*)

## Program overview

Mon, 20 Nov	Tue, 21 Nov	Wed, 22 Nov	Thu, 23 Nov	Fr, 24 Nov
<b>8:30 – 18:00</b> <b>A big picture</b>	<b>9:00 – 18:00</b> <b>Specifying a challenge</b>	<b>9:00 – 18:00</b> <b>Developing a concept</b>	<b>9:00 – 18:00</b> <b>Developing a concept</b>	<b>9:00 – 13:00</b> <b>Finalizing a concept</b>
<b>Joint sessions</b>	<b>Group work (parallel sessions)</b> Group-specific inputs, group discussions, literature and data search Working out the base for a policy brief			<b>Wrap-up</b>
8:30 Registration 9:00 Welcome address  <b>9:15 Keynote</b> <b>CityClimate</b>  <i>Planning to counteract climate change</i> <i>Social aspects of city planning</i>			<b>9:00 Keynote</b> <b>EcoRest (II)</b>  <b>10:00 Keynote</b> <b>Policy brief</b>	<b>Joint session:</b> 9:00 – 11:00  Group reports & discussion:  Policy brief concept
<i>10:45 Coffee break</i>	<i>10:30 Coffee break</i>	<i>10:30 Coffee break</i>	<i>10:30 Coffee break</i>	<i>11:00 Coffee break &amp; snacks</i>
<b>11:15 Keynote</b> <b>AquaCul</b>  <i>Aquaculture: ecological, economic and political aspects</i>				<b>Groups:</b> 12:00 – 13:00  Groups' final tuning & Farewell
<i>13:00 Lunch break</i>	<i>12:30 Lunch break</i>	<i>13:00 Lunch break</i>	<i>12:30 Lunch break</i>	<i>End of Fall school</i>
<b>14:30 Keynote</b> <b>EcoRest (I)</b>  <i>Ecological, political and social aspects of ecosystem restoration</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>	
<b>16:00-18:00 Workshop</b>  <i>Identify the crucial issues in addressing policymakers</i>  <i>(Format: world café)</i>				

## How to prepare for the Autumn school

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

## One-day final workshop

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25 January 2024, online

In the follow-up to the Autumn school, and in the preparation for the final workshop, the participants will draft a policy brief, based on the concept developed during the Autumn school, and prepare short presentations. For this, they are free to organize the collaborative work in a way to suit them the best.

The aim of the workshop is to present the policy brief and to discuss the outcome with scientists and policymakers. The schedule will be arranged in consultation with participants during the Autumn school.

## Venue & accommodation

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The Autumn school will take place at International Academic Forum Heidelberg:

The accommodation is available at the venue for all incoming PhD students for the duration of the Autumn school (arrival on November 19<sup>th</sup>, departure on November 24<sup>th</sup>). The room reservation and occupation at the venue will be arranged by the organizer in consultation with participants. For accommodation elsewhere, participants are kindly asked to arrange their accommodation on their own.

### **International Academic Forum Heidelberg**

Hauptstrasse 242

D-69117 Heidelberg

Tel.: +49 (0) 62 21 / 54 - 36 90

Fax: +49 (0) 62 21 / 54 - 161 3691

email: iwh@uni-hd.de

## Traveling information

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### **Transportation from Frankfurt Airport to Heidelberg**

Heidelberg is located in the Rhine-Neckar region, about 100 km south of Frankfurt/Main. The train ride from Frankfurt airport to Heidelberg takes about one hour and involves changing trains in Mannheim. A one-way ticket costs approx. € 30. For timetables and fares see: <https://www.bahn.com/en>

If you travel in small groups, the most convenient way to get to Heidelberg is to order a private mini shuttle bus for up to 7 people run by the company TLS. A staff member of TLS picks you up at the airport and takes you to Heidelberg. Shuttles should be booked one week ahead. Further information is available at: <https://www.tls-heidelberg.de/en/>

### **Transportation within Heidelberg**

If you arrive to Heidelberg by train, you can use either public transport or a taxi to get to the venue.

From the central railway station in Heidelberg (*Hauptbahnhof*) you can take bus line 20 (direction: *Bf. Altstadt*) and exit at stop Heidelberg, *S-Bf. Altstadt* (it takes app. 16 min). From there you have to walk app. 2 min to the venue.

There is a taxi stand at the train station. You can also call a taxi to any place using this number: +49 – 6221 – 302030.

## Information on Speakers

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### Invited keynote speakers:

(in order of appearance)

#### **Prof. Dr. Ulrike Gerhard** (Heidelberg University)



Ulrike Gerhard is professor for Human Geography of North America at the Institute of Geography and the Heidelberg Center for American Studies (HCA) at Heidelberg University. She specialized in Urban Geography as well as Cultural Geography, often with an interdisciplinary perspective. Ulrike Gerhard is deputy director of the Heidelberg Center for American Studies as well as head of the living lab "Sustainable Urban Development in the Knowledge-based Society" which runs an Urban Office at Heidelberg University at the cutting edge between university, the city of Heidelberg and the International

Building Exhibition Heidelberg (IBA). She is member of the Advisory Board of the research network Spaces & Flows, chairperson of the mobility program "Urban Inequality in the Creative City" as well as Adjunct Professor at the University of Illinois in Urbana-Champaign, IL.

#### **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.

#### **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.

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



Ladislav Miko (\*1961 in Košice, Slovakia, married, 2 children, settled near Prague) 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.

## Invited speakers and external partners for groups:

### Group: Towards a sustainable aquaculture

**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.

**Dr. Noemi Ghinassi** is biologist and technician at Landbasert aquaculture AS. She has many years of experience in production planning and development, also with recirculating technology. Target species of expertise is cleaner fish.

### Group: Greening of cities – adaptation of cities to climate change and biodiversity loss



**Dr. Editha Marquardt** is a senior researcher at the Institute of Geography. Her research interests lie in the field of urban geography. She deals with current urban developments in the knowledge society, sustainable transformations in urban spaces, and urban mobility. Transdisciplinary approaches such as real-world laboratories play an important role here. More recently, her research has focused on cooperation between actors from different societal areas in the urban innovation system.



**Moritz Bellers**, Dipl.-Ing. landscape architect

Mr. Bellers studied landscape and open space planning at the Leibniz University in Hanover and landscape architecture at the Wageningen University WUR/Netherlands. He worked as a practitioner in the *Urbane Gestalt* office, landscape architects in Cologne, as well as a scientist at the University of Stuttgart. Since 2013 he has been active in the transdisciplinary network STUDIO URBANE LANDSCHAFTEN, working on the perception, design and planning of urban landscapes. Between 2016 - 2022 he worked as project manager at the International Building Exhibition Heidelberg (IBA) for the development of the dynamic master plan Patrick-Henry-Village, Agricultural Park and *Der Andre Park*. Moritz Bellers has been employed in the city planning office of the city of Heidelberg since 2023 to continue the IBA projects.

**Petra Eggensperger**, MA (Sussex)

Petra is head of the “Teaching & Learning” department at Heidelberg University and does research in Teaching Methods, Curriculum Theory and Didactics. She has supported and promoted the Collegio futuro from the beginning and will be our host in the Heidelberg-Bahnstadt district in this edition of the course and act as a representative of the citizens' community. She will take a citizen's perspective and describe the problems that citizens in this particular district face due to the lack of green spaces.

### Group: Sustainable land use - ecosystem restoration on marginal land

**Thomas Trabold**, Dr.-Ing. agricultural sciences

In his main job, Mr. Trabold is responsible for regional management in integrated rural development concepts at BHM Planning Company mbH.

Voluntary, he is the first chairman of the *Heidelberger Biotopschutz e.V.*, which is committed to the preservation and networking of habitats in Heidelberg and actively implements this. He is also a cooperation partner of the *Fruit, Garden and Wine Growing Association Heidelberg-Rohrbach e.V.* in the implementation of the wine and culture adventure hiking trail in Heidelberg-Rohrbach.

**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.



## Collegio futuro project partners and supervisors:

### Prof. Dr. Luc Abbadie



#### Sorbonne University

Institut d'Ecologie et des Sciences de l'Environnement de Paris  
Sorbonne Université, Case courrier 237, 4 place Jussieu  
75252 Paris cedex 05

**Email:** luc.abbadie@sorbonne-universite.fr

**Position:** Professor of Ecology at Sorbonne University

**Collegio futuro:** Keynote lecture and project supervision/  
Adaptation of cities to climate change

Support for participants at the Sorbonne University

#### Ecology of ecosystems, including man-driven ecosystems

I am interested in the interactions between biogeochemical cycles and biodiversity and in ecosystem functioning. My past works deal with the nitrogen and carbon cycles in tropical savannas and the mechanisms of nutrient conservation in terrestrial ecosystems. More recently, I studied the mechanisms of carbon sequestration in soils with a focus on the so-called priming effect, i.e. the stimulation of CO<sub>2</sub> emission following the supply of fresh organic matter.

Presently, I am involved in research projects in ecological engineering and urban ecology, and in ecological transition of territories.

### 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

**Soil ecology**

**Ecosystem ecology and ecosystem restoration**

**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 International Academic Forum Heidelberg for providing the rooms.



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