



April 2026

Doctoral Position - International Research Training Group

Competition for land: Tackling the climate and biodiversity crises through the food, energy and materials nexus (C4LaNd)

University of Hohenheim — Double Degree with the University of Melbourne, in Collaboration with KIT

C4LaNd is an international research training group addressing a "wicked problem": how to meet ever-increasing and often conflicting demands for land to produce food, renewable energy, and materials while conserving biodiversity and taking action on climate change. The joint research program offers doctoral positions at KIT, UHO, and UoM and covers the natural and social sciences plus economics. The program aims to deliver high-quality, coordinated research to help make land use part of the solution to the climate and biodiversity crises rather than a major cause.

The qualification program includes training courses in key academic skills and career development, as well as workshops that foster nexus thinking and peer-to-peer learning. Doctoral researchers will also complete a one-year research stay abroad in Australia or Germany. This will enable them to benefit from the complementary expertise within C4LaNd. They will also receive a doctoral degree from both institutions. The first cohort of twelve doctoral students in Germany and twelve in Melbourne will begin in autumn 2026.

Doctoral Project at the University of Hohenheim

Feasibility of Scaling Up Novel Land-Use Systems

Supervisors: Prof. Dr. Thomas Berger and Dr. Christian Troost, Hans-Ruthenberg-Institute, Chair of Land Use Economics, University of Hohenheim

Motivation:

A wide range of novel farming options is being promoted to address land use challenges, including agroecological approaches (e.g., diversified and low-input systems) and high-tech solutions (e.g., digital and precision agriculture). While these systems can demonstrate promising results in pilot programs or experimental settings, their potential for scaling up at the farm and landscape levels is often unclear. This project will investigate the conditions under which these novel land-use systems can be adopted more widely, as well as the factors that enable or hinder their transferability.

Research Focus:

The exact focus and case study design will be tailored to the candidate's background, interests, and the C4LaNd research program. Indicative research questions are:

- How feasible is the adoption of selected novel land-use systems at the individual farm level, particularly in terms of economic and financial performance?
- Which nontechnical and social factors (e.g., risk perceptions, norms, networks, and institutional settings) affect the transferability and uptake of these systems in different contexts?
- What leverage points, policy instruments, and support measures can assist in scaling up promising systems at the farm and landscape levels?

Methods and Data:

The project combines quantitative and qualitative approaches with a strong focus on farm-level analysis:

- Enterprise budgeting and farm-level optimization will be used to evaluate the financial feasibility of alternative land-use systems.
- Interactive agent-based modeling using the MPMAS framework, developed at the University of Hohenheim, to explore adoption dynamics and interactions among farm holdings at the landscape scale.
- Use of farm-level datasets collected at UHO, complemented by data and scenarios from KIT and UoM.
- Interviews and focus group discussions with farmers and other stakeholders at the landscape scale to identify social, institutional, and behavioral drivers and barriers to scaling up.

Requirements:

- An above-average master's degree (either completed or in progress) in agricultural sciences, environmental/resource economics, sustainability science, or a closely related field.
- Profound knowledge of quantitative research methods relevant to the position, such as farm-level economic analysis and optimization and/or agent-based modeling. Experience with qualitative social science methods (key informant interviews, focus group discussions, Net-mapping) is a plus.
- A strong interest in interdisciplinary research at the intersection of economics, the social sciences, and land use/agricultural systems.
- High motivation to work in an international, multidisciplinary research environment and contribute actively to the C4LaNd research and qualification program.
- Fluency in English (written and spoken). German language skills are advantageous but not mandatory.
- Willingness to undertake a one-year research placement at the University of Melbourne and comply with the formal requirements of a dual doctoral degree program in both locations.

Employment conditions: Salary and benefits will be based on the Collective Agreement for the German Public Service Sector (up to E13 TV-L, 75%). Funding is available for three and a half years.

Hohenheim University is an equal opportunity employer, and strongly encourages female researchers to apply. Hohenheim University is a founding member of the European Bioeconomy University (EBU) and the Euroleague for Life Sciences (ELLS), both being networks of leading European universities cooperating in the fields of bioeconomy and natural resources.

Application:

Applications should be submitted as a single PDF file and include:

- A letter of motivation that outlines your research interests and explains how they relate to this project and C4LaNd
- A curriculum vitae (CV)
- Contact details of two academic references

Further details on all C4LaNd positions and the application procedure can be found at <https://c4land.earth>

Application deadline: May 17, 2026

Electronic applications are to be submitted under the following link (not by email):

https://www.uni-hohenheim.de/en/job-openings?tx_unijobs_joboffers%5Bjoboffer%5D=4484&tx_unijobs_joboffers%5Baction%5D=new&tx_unijobs_joboffers%5Bcontroller%5D=Application&cHash=c77b2be04d783e90b091803cb638a1d2