



Project Study on Hop Hallertau

Growing Regional Resiliency Supporting the Global Sustainability

Climate-smart regenerative bio-systems can pave the road to the net zero emission future with nature, society, and economy positive effects. In search for resilient and sustainable solutions, scientists recognize the role farmers may play as stewards of natural resources, navigated by engineers, designers, business and economic visionaries, providing insights into strategies and partnerships to unlock the regional potential with capital, technology and knowledge.

In cooperation with award-winning start-up **HopfON**, we offer an exciting project study opportunity focusing on:

✓ **Sustainable development of hop in the Bavarian Hallertau: Positive regional & international effects**

We look for a team of 3-5 MS students curious and ambitious to investigate:

Domestic potential, considering regenerative strategies for decarbonization that can transform the Hallertau into a self-sustaining bioregion (e.g. with biogas plant for local energy production), and **International potential**, exploring the opportunities (and strategies) in international trade (e.g. hops export) while examining other regions (supply and consumption) potential (subject to data availability).

Tasks

- Investigate the local hops value chain;
- Study the availability and use of local hop-related resources: energy (biogas), water (use), land (hops yield), biomass (material);
- Review the logistics structure and constraints;
- Assess needed skillset (field research);

Reveal other factors critical for the hop growth in Hallertau, e.g. demand for machinery, fertilizers, etc.

Outcomes

- Analysis of the regional hop industry expansion and possible strategies;
- A list of feasibility issues or of possible future bottlenecks;
- Study presentation with recommendations to cooperating partners.

Study Partners: **HopfON** Startup jointly with Prof. **Fanelsa**, TUM ED Architecture & Design, Prof. **Ikonnikova**, TUM MTG Resource Economics

Study participants will be assigned desk in a Studio Space, Main Campus and should plan to attend the following dates together with the teams from architecture and design:

- 25.10. Full-day Field Trip to Hallertau (required);
- 26.10. Full-day Hands-On Workshop with HopfOn, Regional Design Lab TUM
- 06.12. Intermediate Study Results Presentation, AP Space 3356 TUM
- 13.12. Deep Dive with HopfOn, 4362 TUM
- 07.02. Concluding Event with Hops and Construction Industry members, Researchers, and more.

Apply by 31.10.2023, sending an email with "Project Study on Hop Hallertau" subject to CEM@wi.tum.de with your CV, a Motivation Letter (max 1 page), and your transcript of grades.