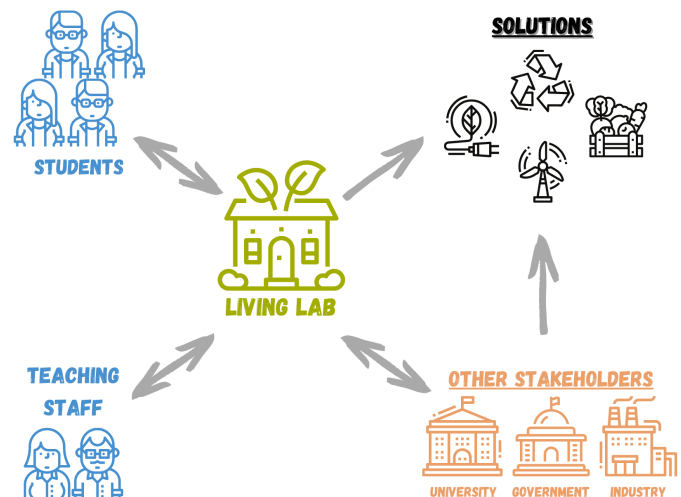


# TUM Future Learning Initiative - Sustainable Living Lab

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We all know the climate is changing. We've seen it happen for the last decades. Many scientists devoted their lives to research solutions which reduce emissions and the anthropogenic climate impact with its negative consequences for humankind and other species. But emissions keep on rising and consequently accelerating climate changes observed. Apparently science is not the problem, transferring knowledge and technology from academia into society is.

But there is a solution. Considering the societal responsibility of educational institutions, many universities - such as the MIT and the University of Utrecht - have already implemented Living Labs to tackle the climate crisis. In order to acknowledge this responsibility at the TUM, we propose a Sustainable Living Lab. In this Living Lab, all stakeholders - including students, faculty and facility staff and others - can pitch their ideas, form transdisciplinary teams and implement a proof of concept in the university environment. Take the example of Veronica, an environmental engineering student. She and her fellow students developed a concept for urban gardening according to the WEF (Water-Energy-Food) Nexus framework. After getting the support from several chairs of many different faculties, they are planning to start their project on the main campus next spring. To benefit from the projects' full potential, students of various academic fields will be involved gradually to evaluate beneficial additions like vertical farms, biogas plants and the installation of roof-top farms with an automatic irrigation system powered by renewable energies. Since the Living Lab aims to improve the communication between society and academia, external stakeholders like the city, companies, NGO's and interested citizens are involved as well. The central goal of the Living Lab is to elaborate practical, scalable concepts and to encourage the communication with external stakeholders. In the example of Veronica's project, the results are used to advance local authorities and companies resulting in a contribution to sustainable agriculture and circular economy - overall encouraging the development of a more sustainable future not only locally but globally. But what has this to do with education?



**Image 1:** Students, teaching staff and other stakeholders pitch their ideas which are then discussed collectively in the Living Lab. After building a transdisciplinary team, the student group conducts research. This research is used to develop a proof of concept in the university environment. With a successful proof of concept, government and industry will follow in implementing the insights locally and globally.

While all insights gained from this interdisciplinary research will be used to create new forward-looking subjects for all students, you will have the opportunity to work on the topics that are most important to you by proposing them for bachelor or master thesis, term papers, academic internships and earning ECTS while broadening your horizon by working together in transdisciplinary teams. Or if you currently don't have an idea, but still want to engage, you can check the list of available topics managed by the Living Lab and join a team of other students. Additionally, the Living Lab together with the external stakeholders will also help you implement your sustainability-related solution. Since the general public is also included as a valuable stakeholder, civil participation in ongoing projects, public lectures or lecture series and workshops can have a far-reaching impact on the individual self-perception that everybody has to and can be part of the required societal change in the next years.

We all know the climate is changing - it's time for us to change.