UIP25-BOKU - High Performance LIDAR and Laser Scanners and Laser Cutter for Precise Data Sampling and Object Construction

Zusammenfassung

The Landscape Innovation Lab (LILA) is the latest addition to the BOKU Core Facilities, designed to provide advanced technologies and methodologies for students, researchers, universities, research institutes, and industry. These facilities focus on maintaining state-of- the-art equipment and infrastructure to enhance their appeal to potential collaborators and project opportunities. LILA specializes in the following areas: Digitization and modelling of spatial and landscape-related data, immersive visualization and experiencing data, and physical construction. With the planned purchase of a laser cutter, we are expanding the possibilities for creating physical models on landscape-related topics and enabling the production of larger parts from varioi.Js materials such as wood, glass, metal and plastic. In this way, we are supporting both research and teaching in the field of model making and design. However, the creation and development of high-quality, accurate physical models also require high-quality three-dimensional data, which will be made possible by the provision of two powerful scanners: a 3D handheld scanner for smaller spaces and specific elements at object level, and a LIDAR scanner for capturing entire landscapes and architectures. This enables significant further development of LILA in the following areas: Production and processing of high-quality physical models from various materials Recording of time series data and thus analysis of landscape-related processes and dynamics Digitization of landscapes, enabling innovative planning in landscape design, agriculture, and forestry Recording and documentation of (historical) objects in the field of landscape architecture and integration into immersive simulations or digital processing. Promotion of innovation and competitiveness through access to state-of-the-art equipment and new research methods. This infrastructure ensures that BOKU University remains a leader in teaching and research in the fields of landscape development, planning and remote sensing, and contributes to major and pressing social issues (e.g. climate change, biodiversity crisis, land use changes, etc.) with new approaches - benefiting AustrianNiennese, as well as international partners and, ultimately, society

Principal Investigator:

Institution:

Status: Abgeschlossen (01.01.2025 - 31.12.2025)

Weiterführende Links zu den beteiligten Personen und zum Projekt finden Sie unter
https://www.wwtf.at/funding/programmes/uip/UIP25-BOKU/