



ALPCHANGE - An innovative Project on Climate Change and Impacts in southern Austrian Alpine Regions

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ALPCHANGE is an innovative project on climate change and impacts on the alpine environment in southern Austria (46.8-47.1°N, 12.7-13.5°E). The project was recently launched by two universities in Graz (University of Graz and Graz University of Technology) and is funded by the Austrian Science Fund (FWF) for a period of three years. The principle objective of ALPCHANGE is to quantify landscape dynamics in alpine regions caused by climate change in past and present. ALPCHANGE combines two basic approaches: (i) Investigation of the interaction of present climatic conditions and high mountain processes by use of an upgraded monitoring network established for the very first time in southern Austria. (ii) Analysis of signals from various dynamic landscape parameters - permafrost, geomorphodynamics, glaciers, and snow - for the ongoing climate change by a series of methods. The four landscape parameters react in differing time scales to climate change and therefore provide different information: snow cover instantly, glaciers within years to decades (depending on size), geomorphic features within years to decades and permafrost within decades to centuries. The interdisciplinarity of the project requires usage of different methods - automatic monitoring, field work, GIS, laboratory work, conceptual and numerical modelling, and remote sensing - and makes the co-operation of a number of researchers with backgrounds in glaciology, geography, geophysics, atmosphere as well as climate physics, geology, and remote sensing necessary. The displayed poster will give a thorough introduction to this project. An assortment of first results will be presented. Further information concerning this project can be found at www.alpchange.at.