

The alpS Climate Change Adaptation (CCA) Cycle – a Strategic Approach to Adaptation Research and Practice in Mountain Regions



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▲ Background

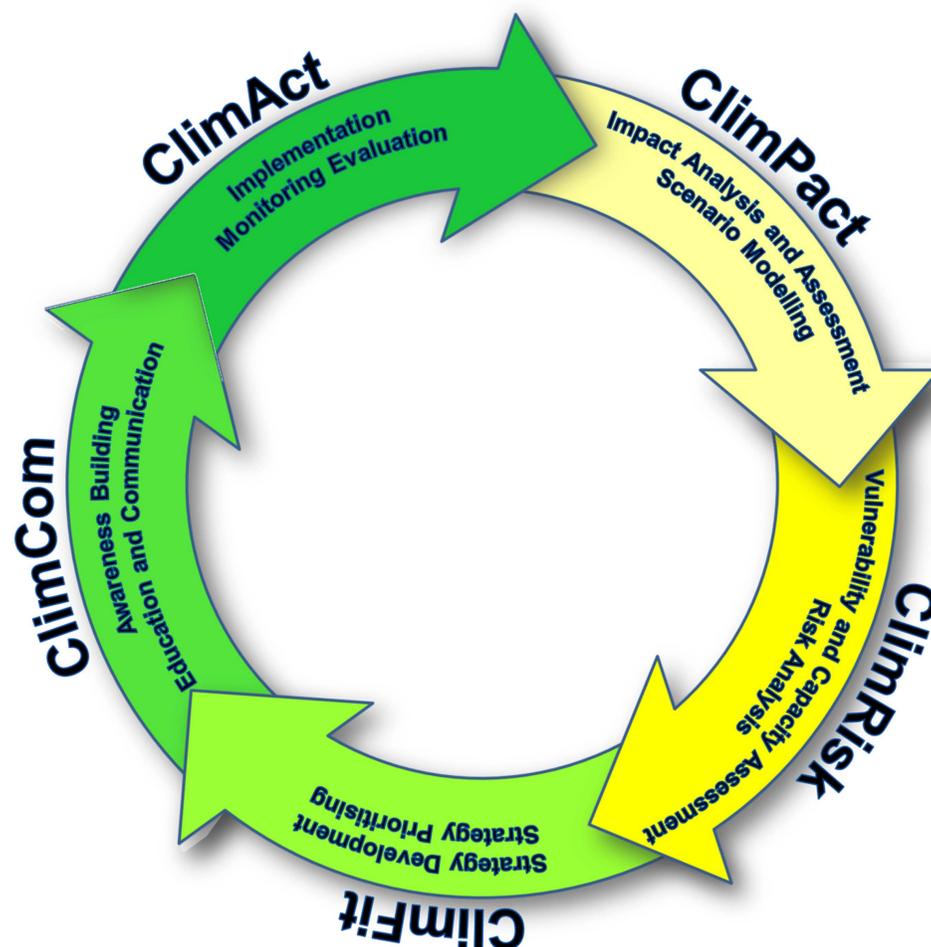
Focusing on applied research and consultancy services at the science-industry-policy interfaces, the alpS Centre for Climate Change Adaptation is one of Austria's Competence Centers for Excellent Technologies (COMET). In order to obtain implementable research results for sustainable adaptation in mountain regions, the Centre developed an approach that is governed by the **alpS CCA cycle** following the steps of integrated risk management. It sequentially orders methodologies, starting with quantitative methods and becoming increasingly more qualitative in nature.

▲ The Elements of the alpS Climate Change Adaptation Cycle

ClimAct represents the concrete implementation of climate change adaptation measures. As integrative part of adaptation, monitoring and evaluation are offered accordingly to identify achievements, emerging risks and opportunities as well as corrective measures.

ClimPact addresses climate change impacts on human-environment systems. Mostly quantitative methods are employed for impact analysis and assessment. This includes the development of scenarios for the natural environment and socio-economic scenarios on various scales.

ClimCom is dedicated to providing methodical support for education and outreach on adaptation. Strategies and formats are developed for target groups such as companies, the public sector, educators and students. Taking a participatory approach, this includes the development and offering of education programmes, trainings of trainers and public relations.



ClimRisk analyses vulnerability, resilience, adaptive capacity and the cost/benefit of climate change impacts. Social, economic and ecological impacts of climate change are assessed from the perspective of the alpS open risk concept where not only the negative, but also the positive consequences of climate and socio-economic changes are taken into account.

Adaptation strategies and technologies are developed in **ClimFit** in a multi-stakeholder manner. A ranking of impacts is carried out with respect to, e.g., social groups, critical infrastructure or ecosystem services. Similarly, measures are prioritised according to their effectiveness, cost/benefit, adaptive capacity and pace of implementation.

▲ Implementation

This five-tiered adaptation process informs the design of numerous public-private partnership projects ranging from water resource management to adaptation concepts for tourist destinations. It provides a framework for individual projects and the integration of research and practice within and across alpS.