


Invitation to Participate

alp·s

Centre for Climate Change Adaptation Technologies

OAW Österreichische Akademie der Wissenschaften

universität innsbruck

Tirol Zukunftsstiftung

WIRTSCHAFTS STANDORT VORARLBERG GESELLSCHAFT

EURAC research

BOKU

Initiation of a Competence Centre within the framework
of the FFG Structural Programme COMET
– Competence Centers for Excellent Technologies –






Facts

1. **Global Climate Change is unavoidable.** The effects on mountain regions are notably serious. Society and economy must adapt sustainably.

2. **Global Climate Change bears risks but also opportunities** – especially with regards to the development of innovative technologies and solutions.

3. **Global Climate Change is an engine for innovation and economic development.** Green technologies represent a strong growing market world wide.

4. Tight connection of **research** and **business** yields **competitive advantages**.

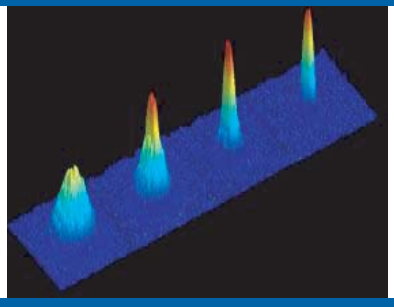
5. **Employment** and **quality of life** can be secured by efficient and sustainable strategies for resource utilisation.

6. **Global Climate Change is a long-lasting phenomenon.** Developed markets will persist in the long term.

COMET

FFG









Join our vision

The *alpS - Centre for Climate Change Adaptation Technologies* will foster the development of innovative technologies and strategies to meet the challenges for society and environment resulting from Global Climate Change.

The *alpS - Centre for Climate Change Adaptation Technologies* capitalises on the know-how of an existing excellence network in science and business. Risks must be minimised and opportunities should be taken.

Together with its partners from science and business this non-university R&D centre develops sustainable, innovative and marketable solutions, which support the sustainable adaptation of society and business.

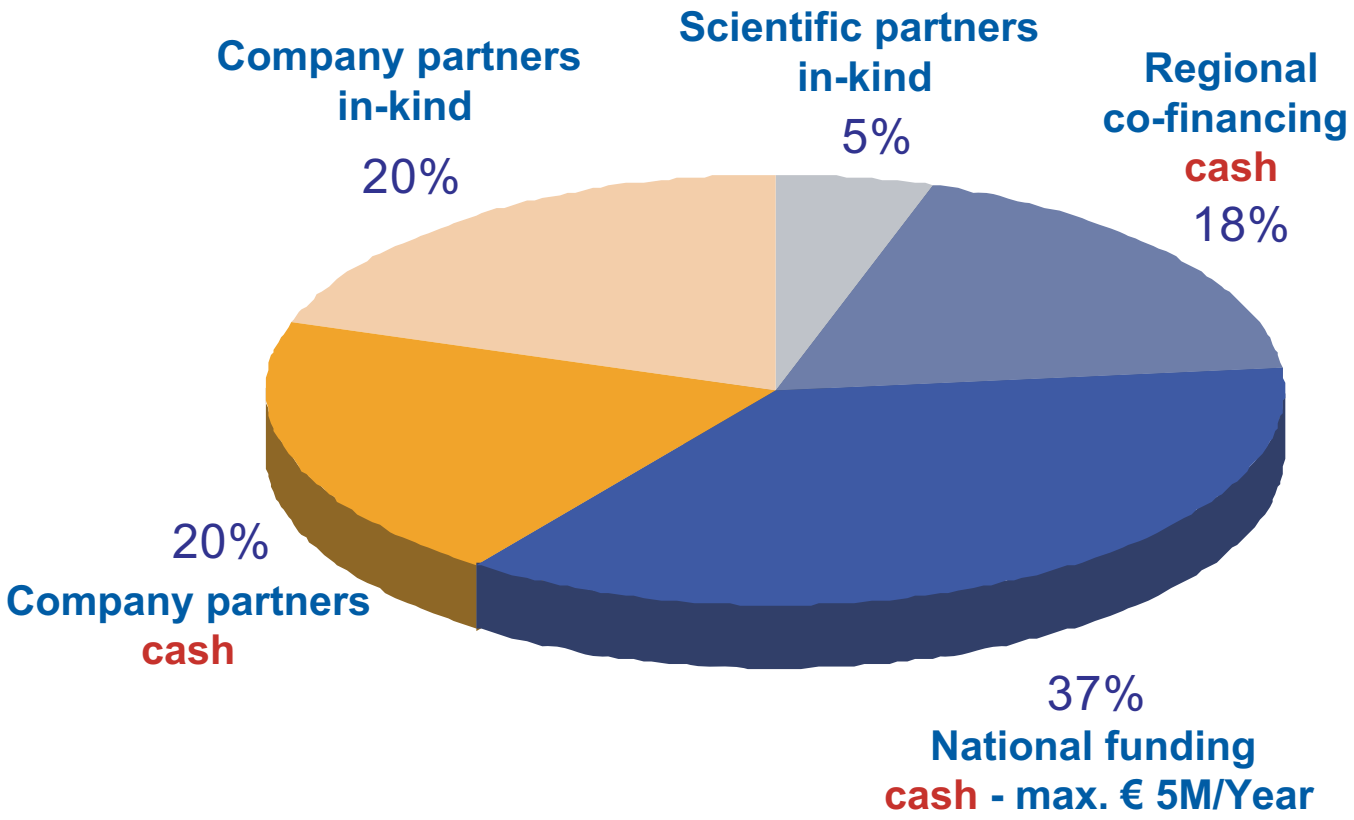
What is COMET?

The COMET programme (Competence Centers for Excellent Technologies) of the Austrian Research Promotion Agency (FFG) funds such a competence centre e.g. as K2-Centre for ten years. Hereby, the cooperation culture between research and business ought to be strengthened. Main goals are the funding of **scientific excellence** and **know-how transfer**, as well as securing the **technological leadership of the participating companies**.





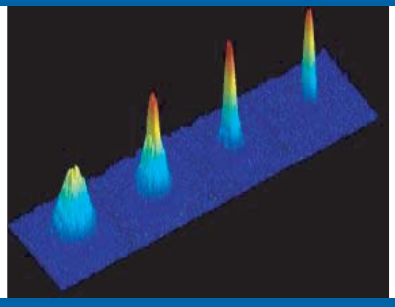

K2 financing (funding proportion: 55%)



Under the leadership of the University of Innsbruck and alpS more than € 35M funding (national share) over ten years will be sought for the *alpS - Centre for Climate Change Adaptation Technologies*. A consortium bringing together Tyrol (University of Innsbruck, alpS, Austrian Academy of Sciences), South Tyrol (EURAC), Vorarlberg (FH) and Vienna (BOKU) have submitted a K2 pre-proposal in October 2008.

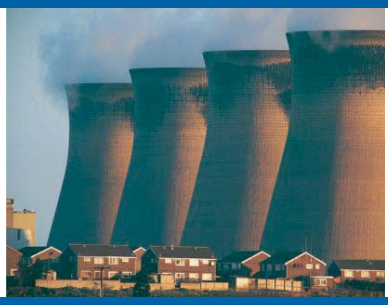
Take this opportunity and let us now about your project ideas!











Climate Change – Business Engine of the Future

Benefits for private enterprises

- Customised development of innovative products, optimisation of existing solutions
- Direct access to cutting-edge research and its immediate application
- Development of new business sectors in the area of climate change adaptation
- Competitive advantages through scientific know-how
- Synergy effects through cooperation with partners within the centre
- Active shaping of a need-based, practical research programme
- Financial and planning security due to professional project management and roll-out
- Complete and sustainable solutions – “one-stop-shop”

Every Euro in cash buys you about three Euros worth of research! (maximum funding quota is 60%)

Together with our company partners we need to define projects for the full proposal by May 2009!

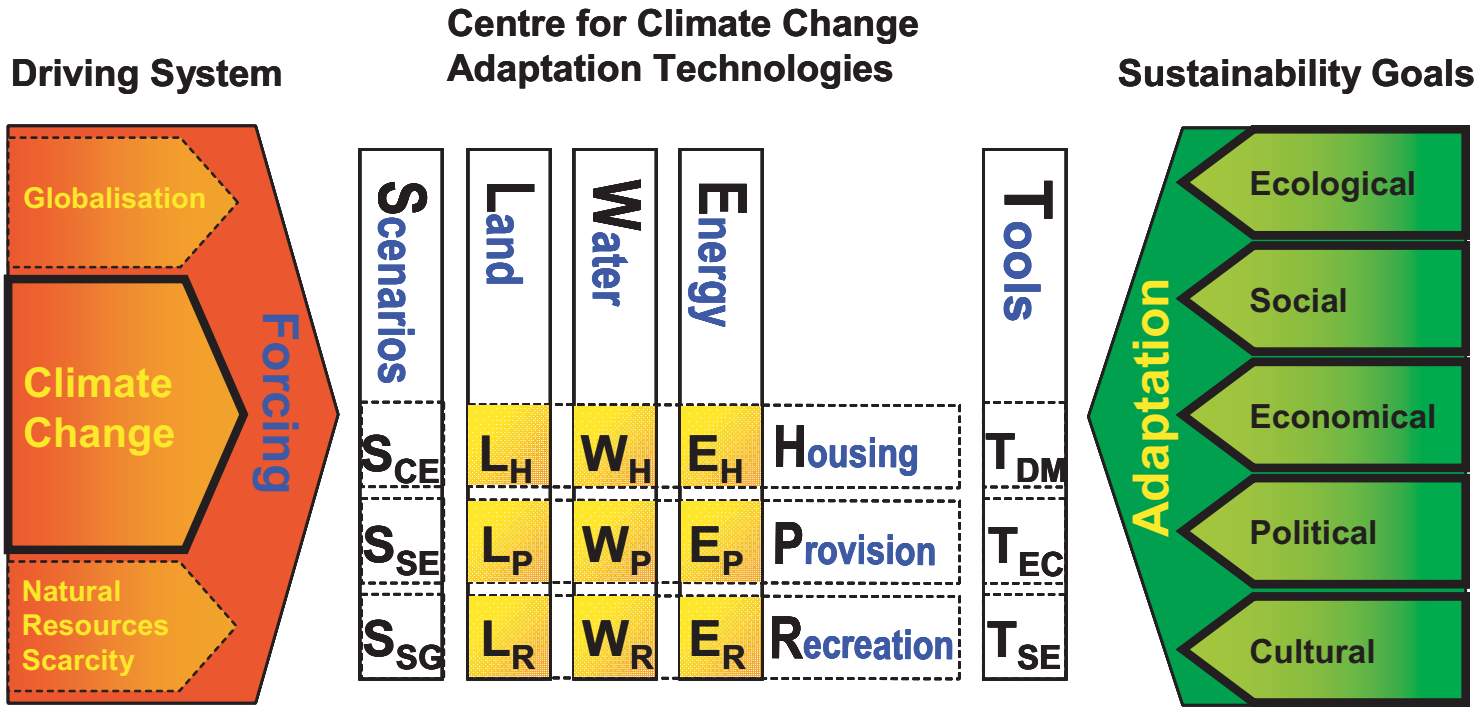




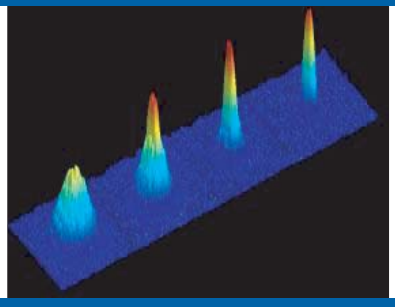

Structure and Content of the Research Programme

The planned centre contains five R&D areas:

- Scenarios – Downscaling Global Processes to Mountain Regions
- Land – Managing Land Use and Natural Hazards
- Water – Managing Water Regimes and Hydrological Regimes
- Energy – Managing Energy Supply and Consumption
- Tools – Facilitating Adaptation by Innovative Digital, Engineering and Socio-Economic Techniques

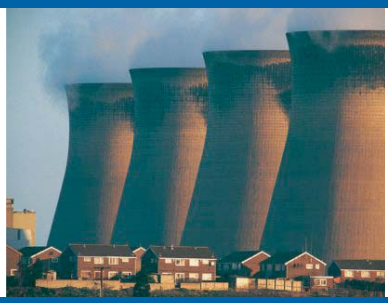












Area Scenarios

Within the area “Scenarios” the effect of future global climate change and socio-economic dynamics in mountain regions will be investigated. Precise knowledge of the regional effects is a vital pre-requisite for the development of adequate adaptation strategies and technologies that adhere to regional sustainability goals.

Area Tools

All necessary methods and instruments will be developed in the area “Tools”:

- Data processing and modelling
- Software development
- Risk management systems
- Laboratory tests (Geo-technique, hydro-engineering)
- Measurement and monitoring technologies
- Material sciences
- Risk perception and acceptance research
- Sustainability ranking (cost-benefit analysis, CO_2-budgeting)
- Development of controlling and financial instruments
- Participation research






Area Land

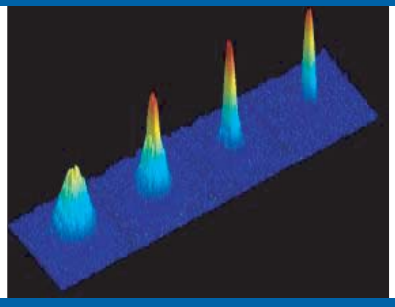
Residential and Commercial Housing
Providing security to settlements against effects of natural hazards:

- Analysis and monitoring of natural hazard processes (rock-fall, mass movements, avalanches)
- Analysis of potential accumulated losses
- Object security measures and retrofitting
- Planning measures
- Risk-transfer systems (insurances)

Utilities and Waste Management
Adapting land-use and providing security to utilities infrastructure against effects of natural hazards:

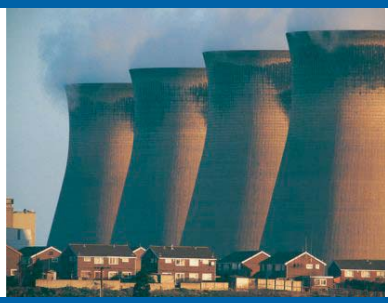
- Hazard and risk analysis of key infrastructure
- Knock-on effects of service disruptions
- Security concepts
- Evaluation and revision of design practise
- Land-use planning (adapted agriculture and forestry)











Leisure Industry
Ensuring optimised, perennial tourism in mountain areas:

- Adapted land use designation concepts
- Minimising ecological effects
- Alpine safety and risk communication

Area Water

Residential and Commercial Housing
Reducing household water consumption and protecting buildings against flood damage:

- Development of water saving technologies
- Optimised waste-water recycling
- Water resistant construction materials
- Object security measures and retrofitting

Utilities and Waste Management
Securing water supply and waste water management in altered environmental conditions:

- Early warning systems, long term forecasting
- Optimised control of dams and reservoirs
- Flood risk management
- Drought management
- Waste water treatment






Leisure Industry
Development of concepts for changed snow cover conditions and watercon-servation alternatives:

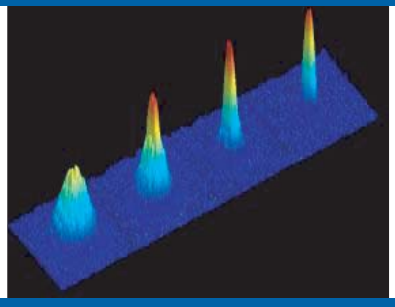
- Optimising of artificial snow-making
- Alternative concepts for winters with little snow
- Water saving wellness concepts
- Weather derivatives (insurance against variable weather)

Area Energy

Residential and Commercial Housing
Development of innovative technologies to increase energy and resource efficiency in the value added chain “building” including planning, architecture, construction and use:

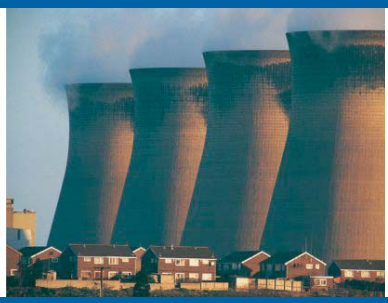
- Optimising energy efficiency of buildings
- Implementing new low-consumption building technology (e.g. passive house)
- Increasing energy performance of buildings through intelligent combination of components
- Improving use behaviour
- Solar energy (photovoltaic, solar cooling)











Utilities and Waste Management

Diversification of energy sources and development of new management concepts to manage variability in supply and consumption of energy:

- Potential renewable energy (solar, geo-thermal, water, bio-mass)
- Improvement of storage technologies

Leisure Industry

Diversification of perennial leisure and tourism activities and simultaneous minimisation of energy demands:

- Optimising artificial snow-making
- Sustainable traffic and transport concepts
- Optimising cooling and heating demands






Become a partner!
Take the opportunity!

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Supported by:
PSB projekt.service.büro, University of Innsbruck