

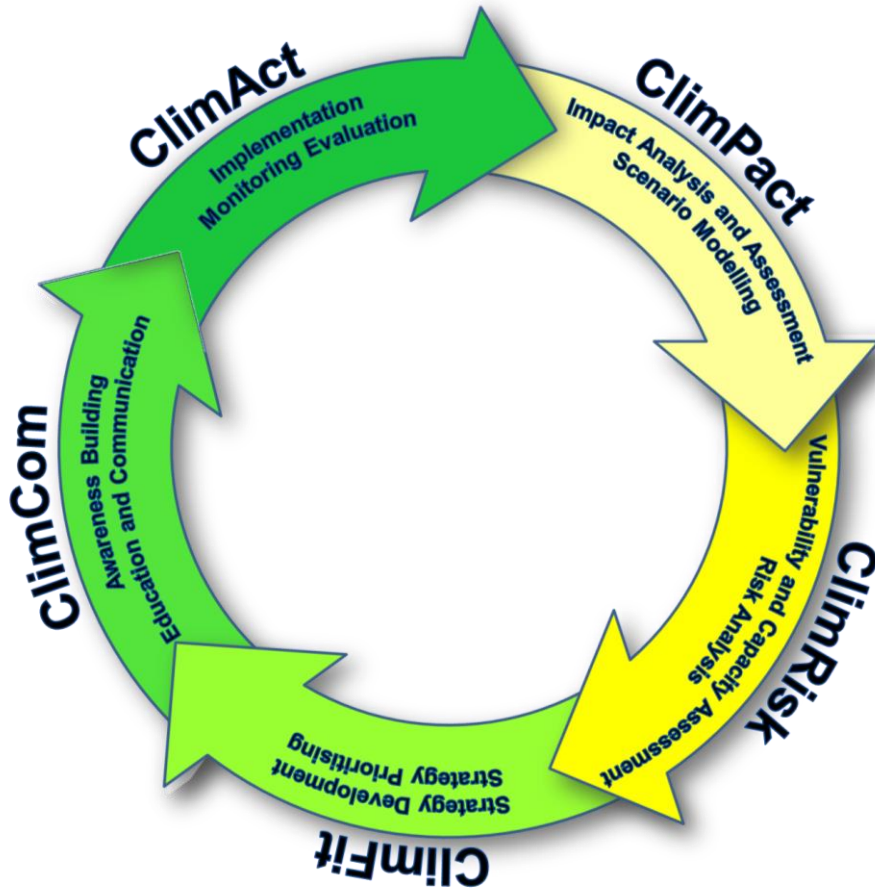
# The potential of Research-Education-Cooperations for societal transformation.

**Maximilian Riede**

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# ▲ The alpS CCA - Cycle



## ClimPact<sup>©</sup>

Assessment of Climate Change Impacts

## ClimRisk<sup>©</sup>

Analysis of Risks & Opportunities

## ClimFit<sup>©</sup>

Development of Strategies & Technologies

## ClimCom<sup>©</sup>

Awareness and Capacity Building

## ClimAct<sup>©</sup>

Setting CCA Measures, Monitoring & Evaluation

# ▲ Climate Challenges = Social Challenges

- ▲ IPCC 4AR: further social science research needed
- ▲ Need for multi- inter- and transdisciplinary research approaches
- ▲ ISSC\*: science should “make a real difference to people's lives”
- ▲ Dual role of social science
  - ▲ **critical and independent observer:** „scientific analysis of“ (explanatory, evaluative and predictive knowledge)
  - ▲ **co-designer of solution strategies:** „scientific analysis for“ (prescriptive, strategic and instrumental knowledge)

(\*ISSC = The International Social Science Council)

# ▲ Science for the environment

*“...posing fundamental and courageous (possibly inconvenient) questions and to facilitate **critical self-reflection** across society.*

*...**empowers** institutions, organizations and individuals who are committed in tackling the grand societal challenges of global environmental change (“change agents”).*

*...**connects** scientific knowledge to shared societal visions that drive societal transformation.*

*...increases its **credibility** by offering positive role models in terms of reducing the increasing negative environmental impacts of the research system.”*

(Source: Helgenberger 2013)

# ▲ Social Science Aspects within CCA

- ▲ CCA is about **human decision making and social processes** (Agrawala et al. 2001; Adger 2003; Adger et al. 2009; Næss et al. 2006; Grothmann & Patt 2005).
- ▲ Notions of **behavioural psychology, communication, culture and power relations** need to be considered for developing adaptation measures (Frank et al. 2011).
- ▲ Successful implementation depends on **local actors embedded in local cultures, social networks and power relations** (Burch 2010).

# ▲ Social Science Aspects within CCA

- ▲ Human behaviour plays a key role
- ▲ Communication and awareness-raising measures are embedded in most strategies (IPCC, EU Adaptation Strategy, Hyogo Framework for Action, National CC Strategies, etc.)
- ▲ mostly monodirectional and top-down
- ▲ lack of field-tested, target-group oriented and evidence-based knowledge-sharing formats
- ▲ Usage and adaptation of existing concepts e.g. *Ladder of Participation* (Arnstein 1969, Connor 1988, Hart 1992)

# ▲ Research-Education-Cooperations (REC)

- ▲ Why should scientists cooperate with education partners (e.g. schools)?
  - Development stage (habits, values, personality, etc.)
  - Future decision makers
  - Multiplier effects
  
- ▲ Is „Education for Sustainable Development“ a legitimised context for societal transformation?
  - Balancing approach (econ. + ecol. + social)

# ▲ Research-Education-Cooperations (REC)

≠ Educational research

≠ Child- and youthfriendly lectures

≠ Conventional public relations activities

= Thematically linked to **reality of target group** („change agents“)

= Integration of **educational AND scientific goals**

= students design learning processes independently and take over responsibility (core competence of modern society)

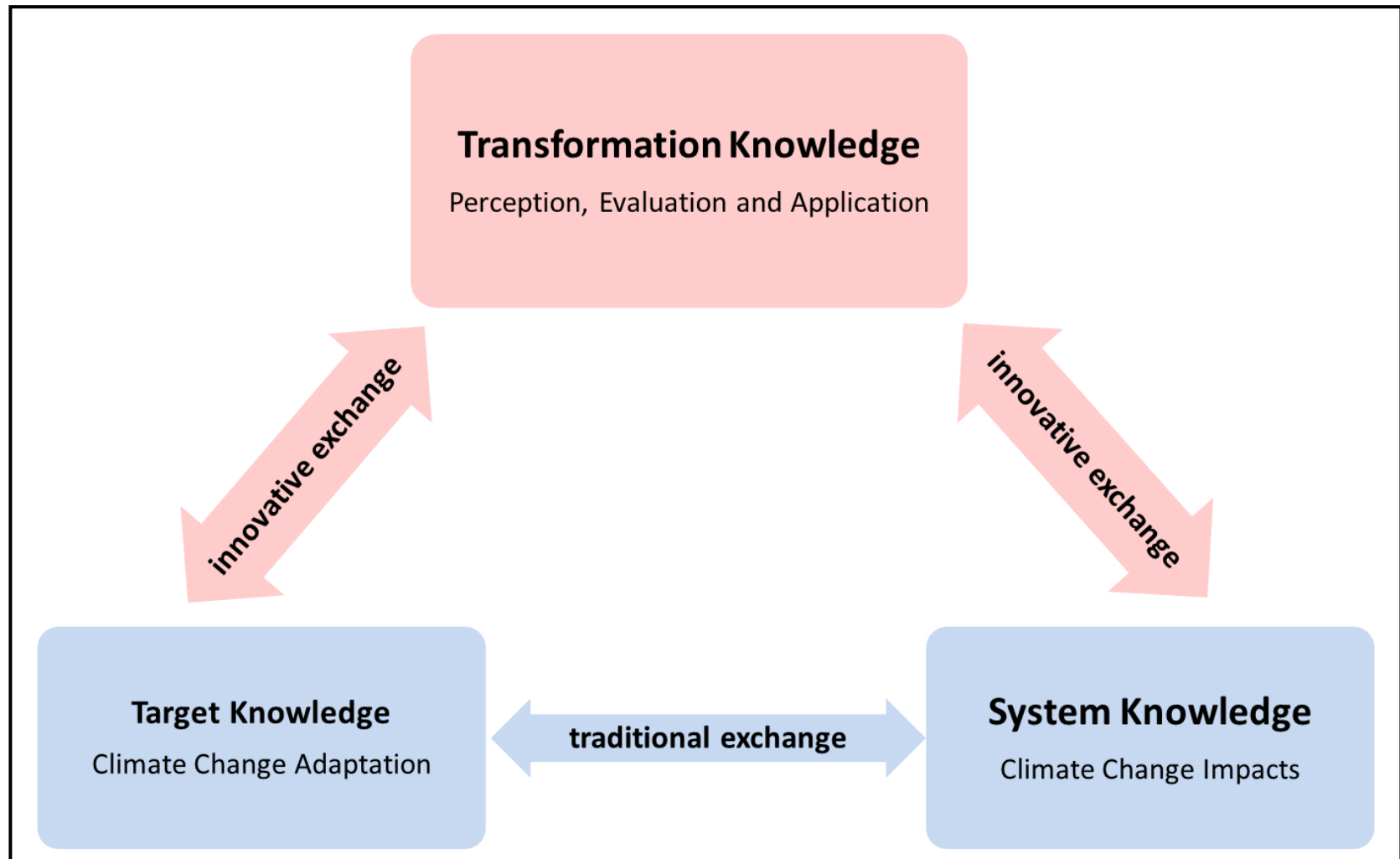
= critical evaluation of applicability of existing (scientific) strategies  
(**transformation knowledge**)

= **added value** to other research approaches and activities

= aiming at sustainable and future-oriented development

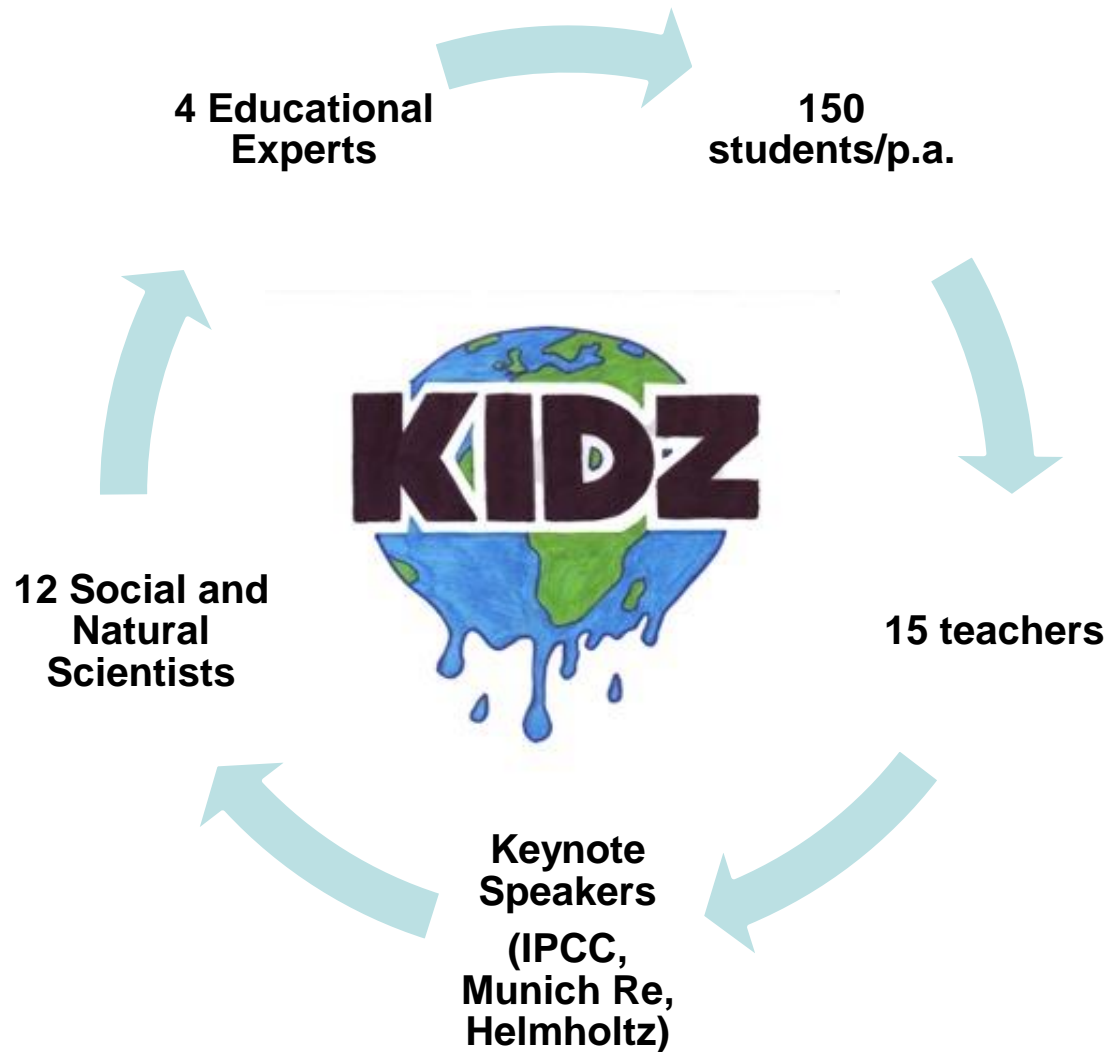


# ▲ Transdisciplinary Understanding of Knowledge



(based on: CASS & ProClim 1997, Häberli et al. 2001)

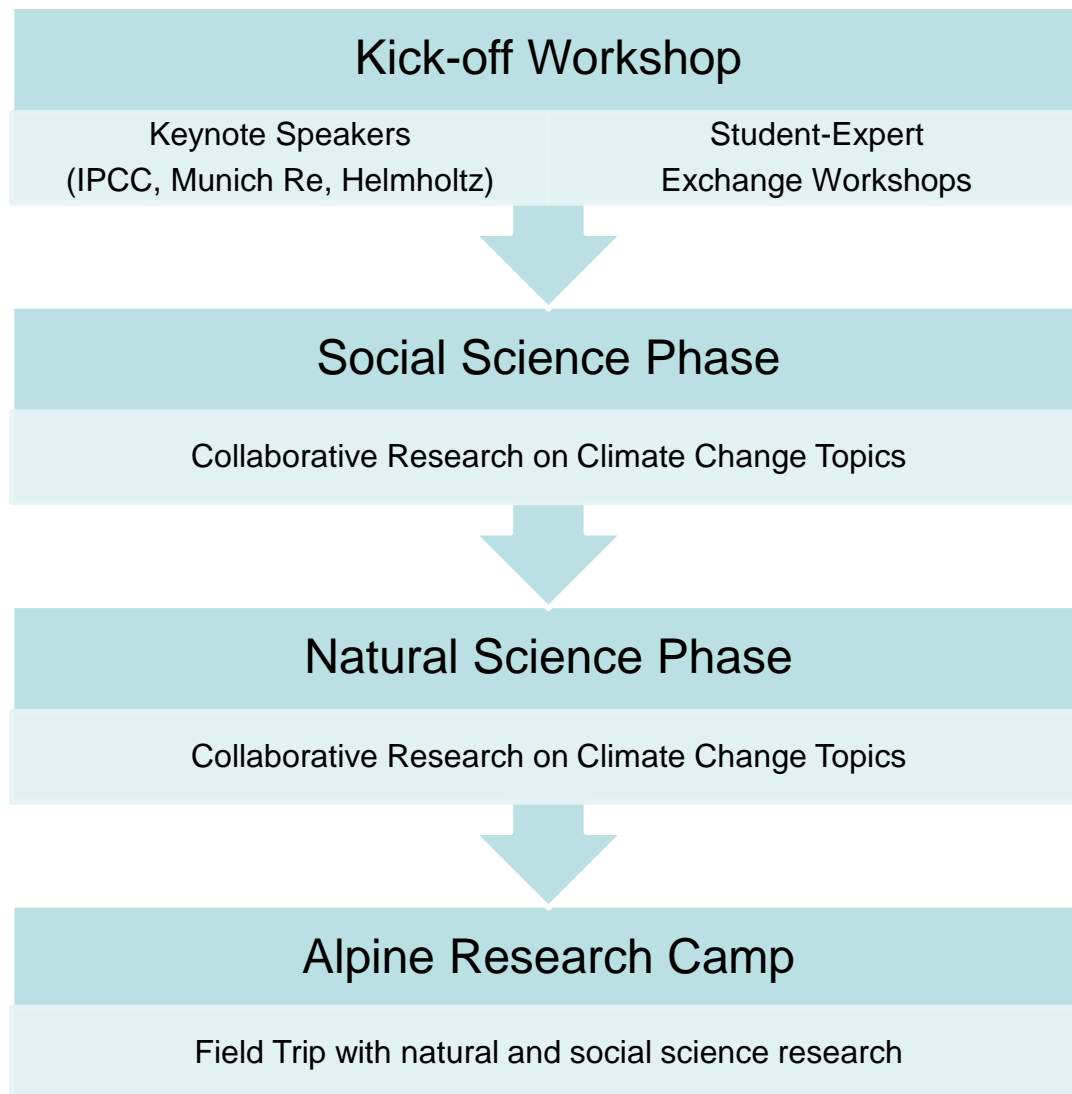
# ▲ Example: *K.i.d.Z.21*



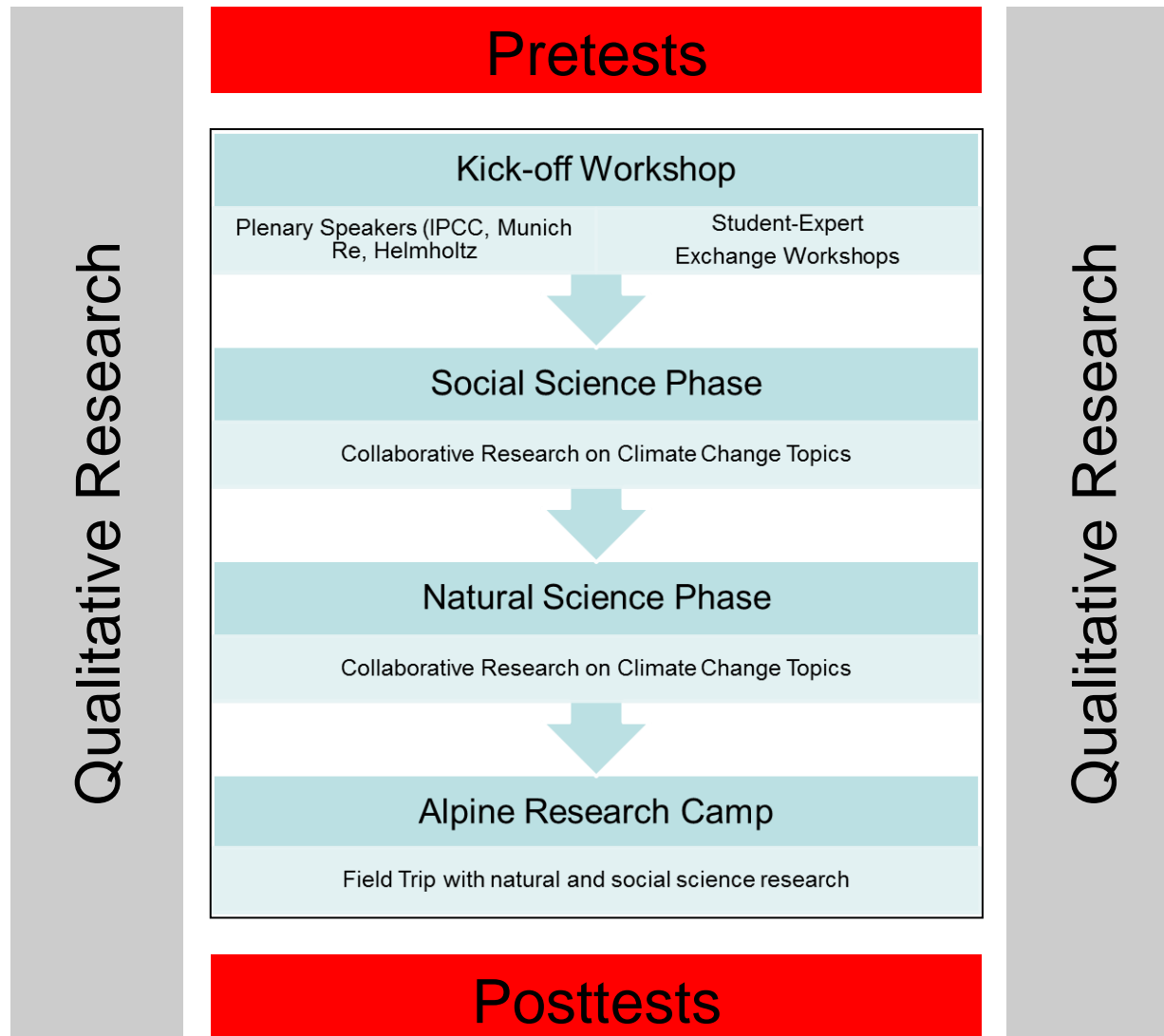
## ▲ *K.i.d.Z.21* - Methodology

- ▲ UN Decade „Education for Sustainable Development“
- ▲ Holistic approach to climate change (social + natural)
- ▲ Research-based/exploratory learning
- ▲ Moderat-constructivist approach

# ▲ K.i.d.Z.21 - Approach



# ▲ K.i.d.Z.21 - Evaluation Research Design



# ▲ K.i.d.Z.21 - Outlook

- ▲ Annual proceeding
- ▲ Stronger involvement of school stakeholders
- ▲ Transfer of results and insights
  - ▲ *area-wide*
  - ▲ *new target-groups*
- ▲ Knowledge-sharing
- ▲ International cooperation (Horizon 2020)
  - ▲ *Science with and for society*
  - ▲ *Secure, clean and efficient energy*

# ▲ Thank you for your attention!

## Contact:

Mag. Maximilian Riede

### alpS GmbH

Grabenweg 68

6020 Innsbruck

Tel.: +43 / 512 / 39 29 29 - 0

[Riede@alps-gmbh.com](mailto:Riede@alps-gmbh.com)

[www.alps-gmbh.com](http://www.alps-gmbh.com)

### University of Innsbruck Department of Geography

Innrain 56

Tel.: +43 / 512 / 570 5435

[Maximilian.Riede@uibk.ac.at](mailto:Maximilian.Riede@uibk.ac.at)

[www.uibk.ac.at/geographie](http://www.uibk.ac.at/geographie)

