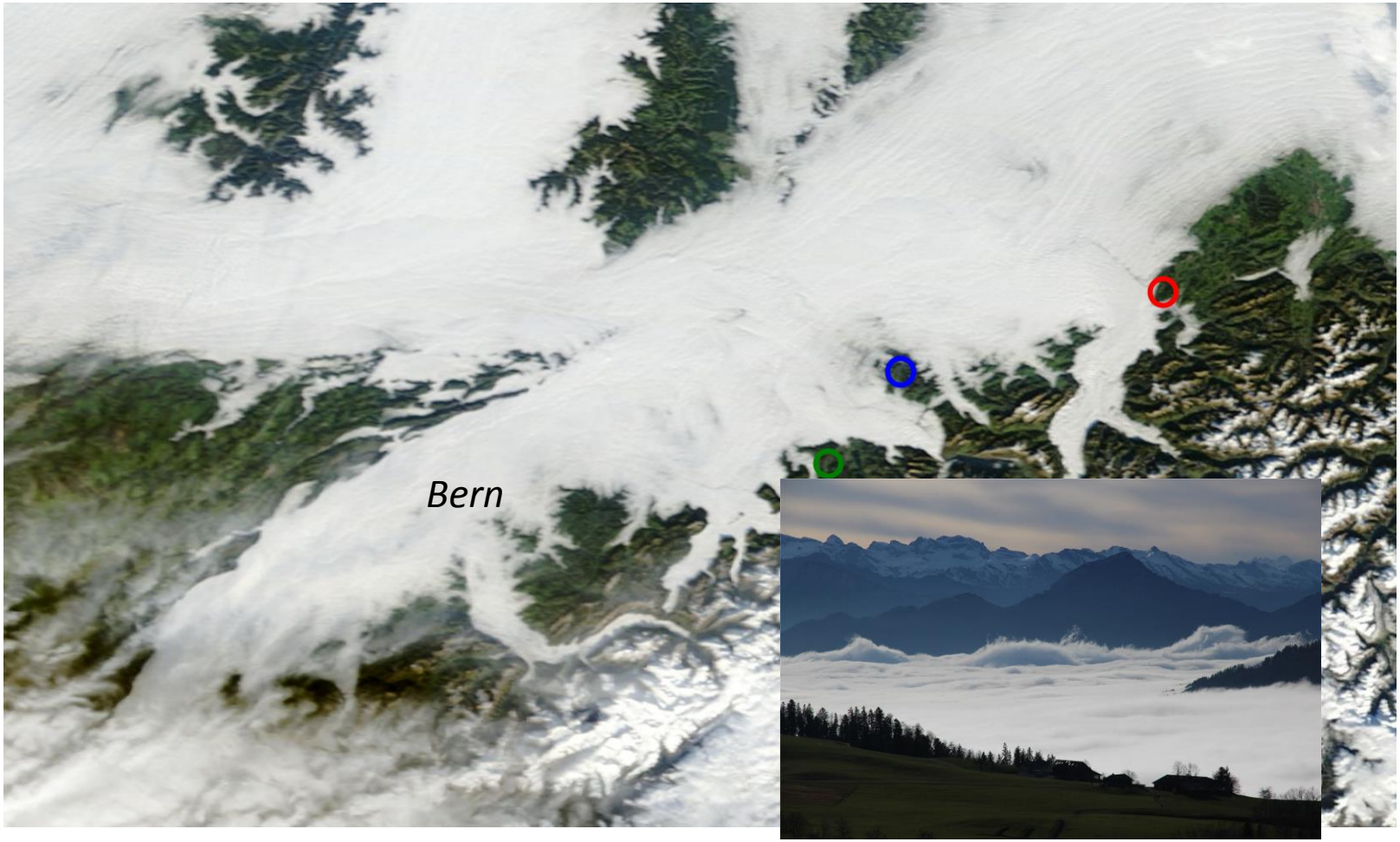
«Linking climate data and impacts with end user needs to enable robust adaptation»

VALUE Workshop WG1

1. Typical autumn fog




www.climate.unibe.ch
2005-05-26 CEST 06:06:47
Climate and Environmental Physics
University of Bern
000005 PE UC
ST 1


2009-11-24 CET 15:29:57
Welcome!
Climate and Environmental Physics
University of Bern

2. Organizational Stuff

- Flexible time schedule, but food and coffee times are fixed
- Dinner at the «AltesTramdepot» (18-36 CHF)

  - who will join?
- Individual lunch
- WLAN
- Reimbursement question?

Program

	1. December			**2. December (room HS 101 !)**	
		8:00 - 8:30			
		8:30 - 9:00		Re-Welcome and Re-opening	
		9:00 - 9:30		Keynote C: D. Maraun	Session B (Addressing the problem)
		9:30 - 10:00		Discussion	
		10:00 - 10:30		**Coffeebreak**	
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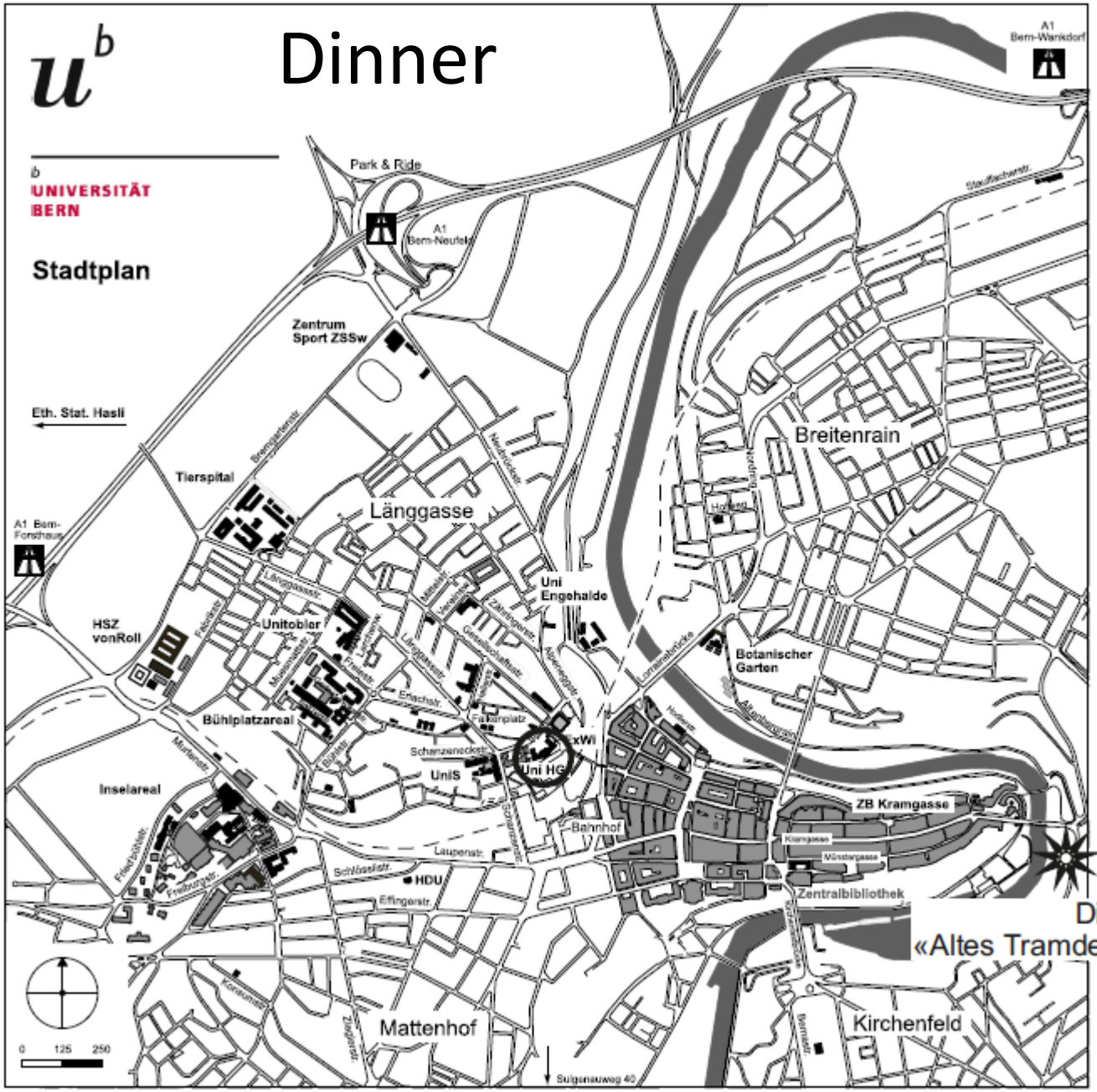
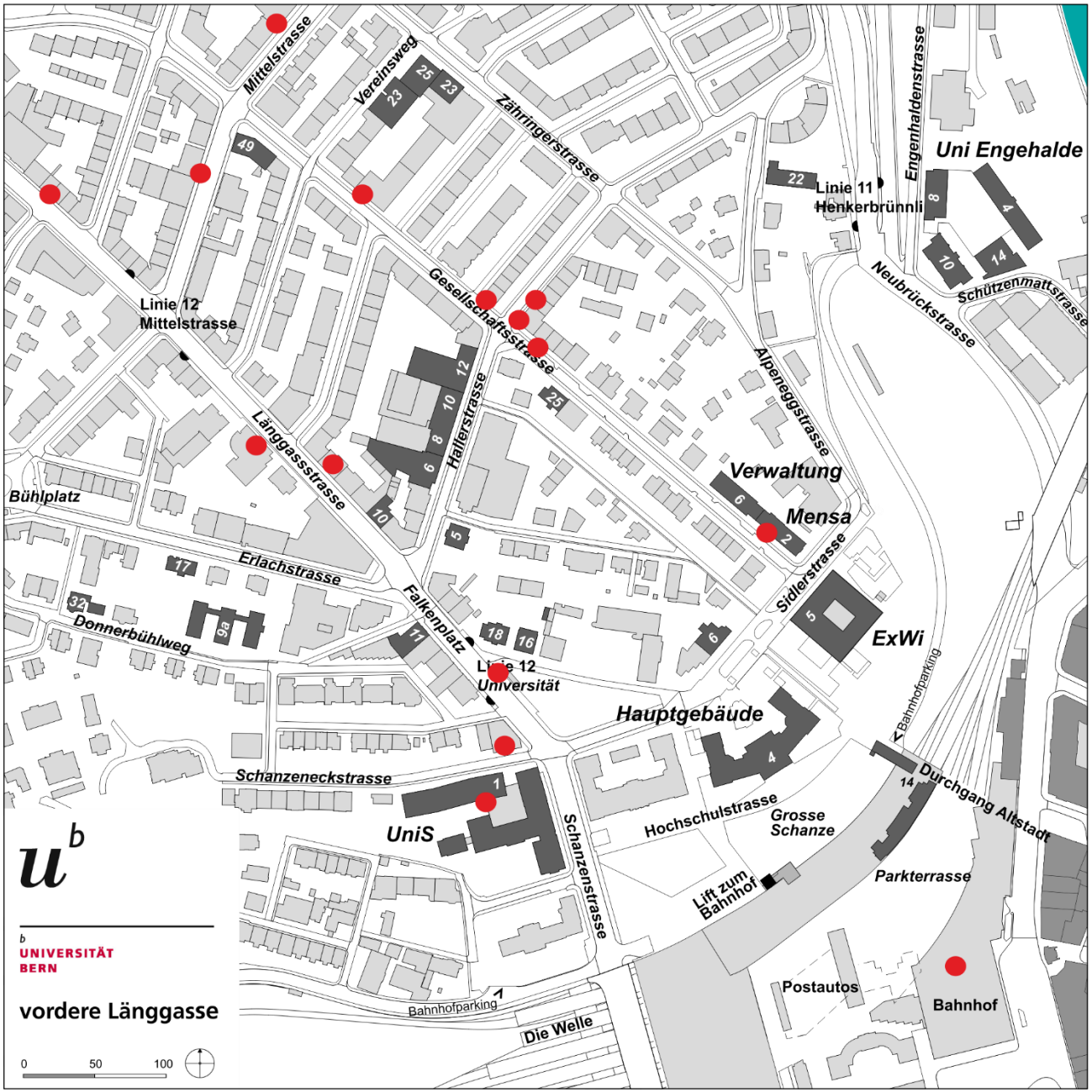
20:00	**Workshop Dinner "Altes Tramdepot"**				

Dinner


UNIVERSITÄT BERN
Stadtplan
Park & Ride
A1 Bern-Neufeld
A1 Bern-Wankdorf
Zentrum Sport ZSSw
Eth. Stat. Hasli
Tierspital
A1 Bern-Forsthaus
Länggasse
HSZ vonRoll
Unitobler
Uni Engehalde
Breitenrain
Botanischer Garten
Bühlplatzareal
UniS
Uni HG
WI
Inselareal
Bahnhof
ZB Kramgasse
Zentralbibliothek
HDU
Mattenhof
Kirchenfeld
Dinner «Altes Tramdepot»

Places to have a lunch



3. Framing the workshop

Overall aim of VALUE:

"The COST Action VALUE (2012-2015) will provide a European network to validate and develop downscaling methods and improve the collaboration between the dispersed research communities and with stakeholders."

→ ***Validation platform for downsclaing methods under construcion***

Selected objectives:

A: "To guide the application of well-performing methods to provide scenarios for regional climate change in Europe during the 21st century"

B: "To improve the dialogue between downscaling researchers and stakeholders, and to inform the latter about the results of the Action."

[Memorandum of Understanding]

→ ***Improvement of the dialogue and interaction with enduser still open***

Some more intentions:

- cross-disciplinary workshops will be organised to create an inventory of downscaling methods
- to exchange knowledge between different disciplines and with stakeholders,
- To coordinate the validation exercises of the individual partners, and to identify directions of method development
- *[Memorandum of Understanding]*

Some more intentions:

- cross-disciplinary workshops will be organised to create an inventory of **suitable** downscaling methods
- to exchange knowledge between different disciplines and with stakeholders,
- To coordinate the validation exercises of the individual partners, and to **identify directions of method development**
- *[Memorandum of Understanding]*

This workshop is also a preparation of the syntheses to be done in 2015

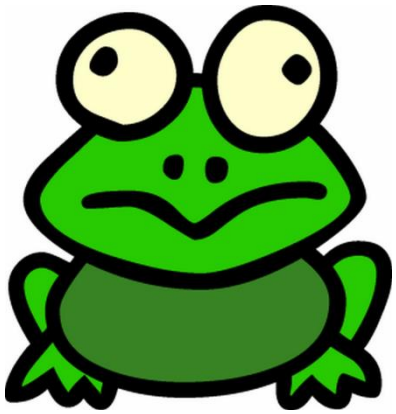
D7: Tailored guidelines for downscaling scientists and end-users (scientific and non-scientific) on suitable downscaling methods for different purposes

What has been done in the past years?:

- Workshop with end-user in the beginning (Kiel meeting in 2012)
- End-user questionaire on their needs
- Review of literature on end-user needs
- Compilation of a white paper

4. Current challenges

The communication callenge



«Climate community»

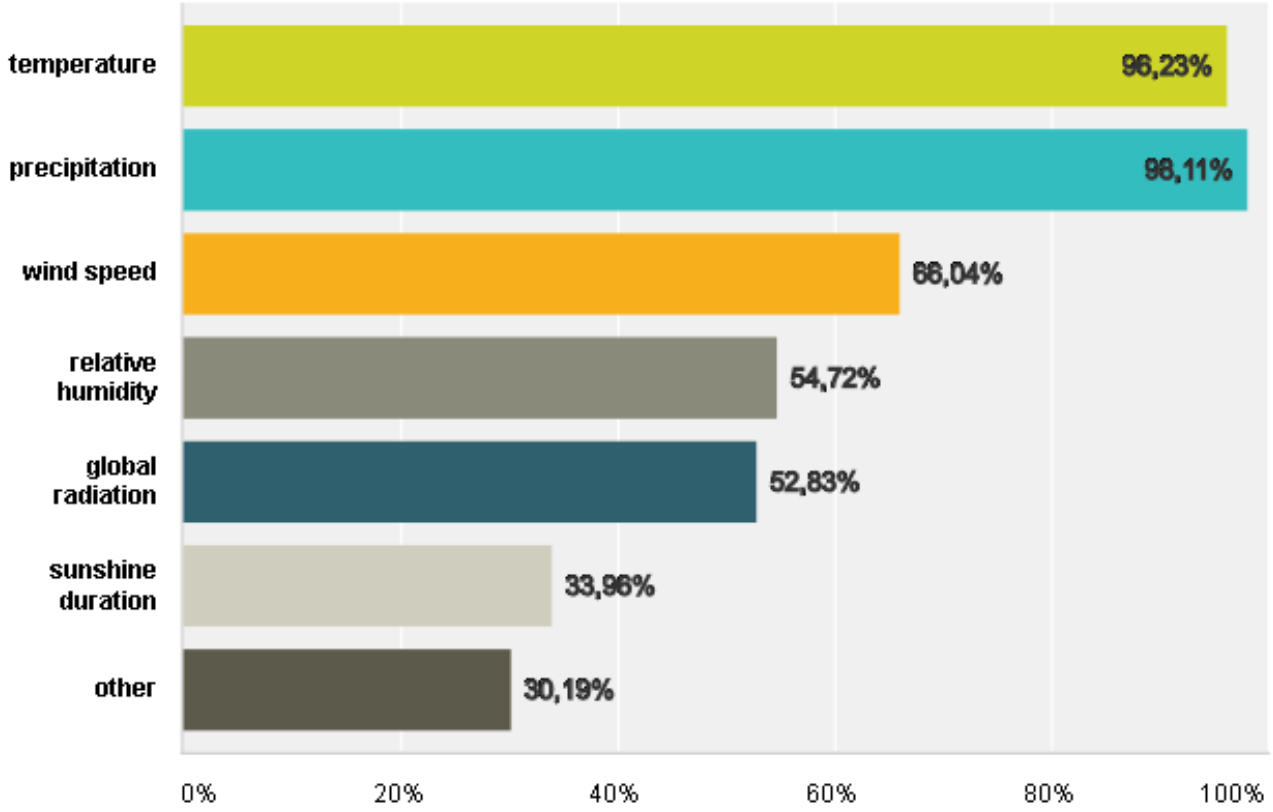
«Impact community»

Questionnaire on end-user needs

- Which variables do you need?
- Which temporal / spatial resolution?
- Which accuracy (optimal and „worst case“)?
- Do you use uncertainty / bandwidth information?
- Would you appreciate guidance along with the data?
- Probabilities or time-series?
- What kind of end-user do you consider yourself?

➢66 responses, several regions and research areas (largest group: hydrologists)

What variables are requested?



- The „major two“ or the „big five“

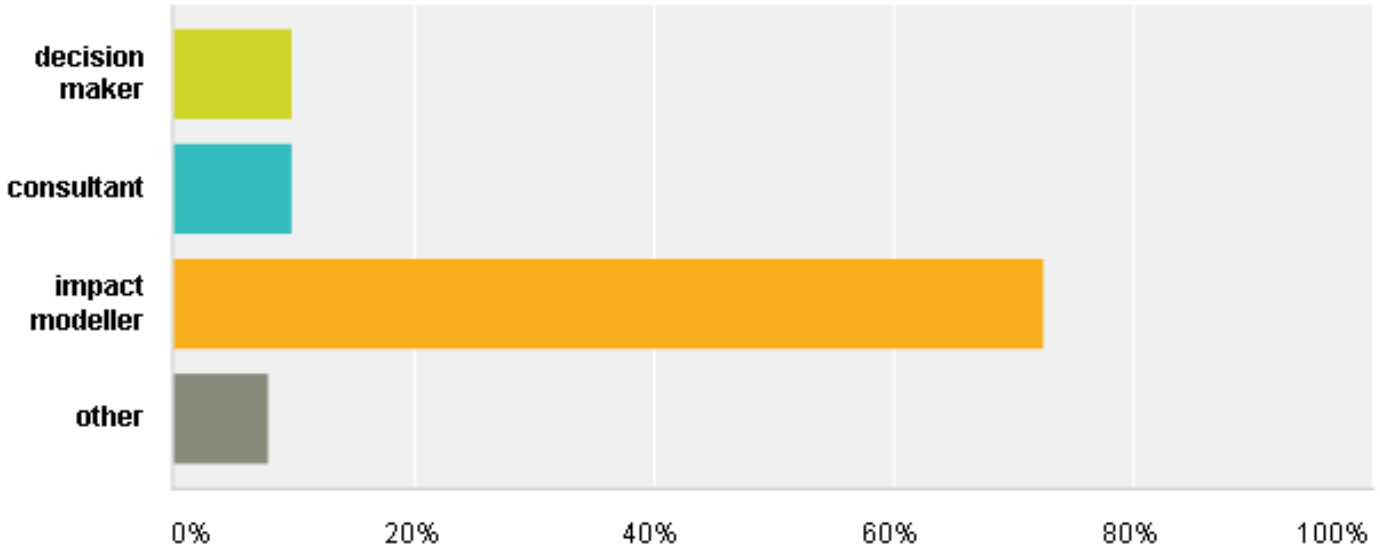
Questionnaire on end-user needs

- Which variables do you need? **- Major two, big five**
- Which temporal / spatial resolution? **- diverse**
- Which accuracy (optimal and „worst case“)? **- 20% at maximum**
- Do you use uncertainty / bandwidth information? **- yes**
- Would you appreciate guidance along with the data? **- yes**
- Probabilities or time-series? **- both, depending on community**
- What kind of end-user do you consider yourself? **- problematic**

➢66 responses, several regions and research areas (largest group: hydrologists)

Who answered?

What kind of end-user would you consider yourself?



White Paper - Literature review

- Basically confirmation of questionaire

"end-users are experts on their own topic, but not on climate or climate data, end-users are often unsure about the data access, quality of data, and correct usage of data"

Guidance needed

communication

«End users require precisely tailored downscaling products with detailed guidelines on their interpretation and limitations."

cost
EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

VALUE

UNIVERSITÄT BERN

OESCHGER CENTRE
CLIMATE CHANGE RESEARCH

White Paper – Literature/study review

Communication problem:

"the end-users do not really know what they want but want everything. This led to the feeling that surveys were considered more of a wish-list than a list of absolutely necessary information. Even though we did not find this tendency in our own survey, we recognize this perception as a part of the current state of the communication between climate model data providers and climate model data users.

How strong to we have to give guidance?
What can we expect from the end-users to learn before using climate data?

White Paper - Literature review

end-users needs:

Is that really a general pattern?

- Decision makers and program initiators may need climate projection results on a single page (see ICCS2 impressions) aggregated in an understandable way.

- 1st-order end-users with regional focus: Natural science impact modellers need the “raw data” in a way they are familiar with (time-series of station data, or if they work on the broader scale gridded data (cp. IMPACT2C)

- 2nd-order end-users: E.g., end-users from the economy research or end-users from the private sector . They need changes in the impacts (heat waves, floods, wind damages, etc.), are often satisfied with (regional) changes in the changes in occurrence probability of the impacts, either from the climatological community or from the impact modelling community.

White Paper - Literature review

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How to structure?

- science, education, hydrology and water management, energy, tourism, agriculture-forestry and ecosystems, health, infrastructure, insurance and finances, and civil protection. The type and level of specificity of data needs from these very different users and sectors will vary

Narrative. but helpful?

Themessl, 2011

Problems - Challenges

- Who is stakeholder/end-user? Any possibilitied to classify or structure?
- How to commnicate the data? What can be expect form the end-user community?
- Do the end-user know what to ask for?
- Do the climatologists know what is needed?
- Can we provide what is needed? Extremes, uncertainties?
- Who is providing?
- Validity, uncertainties, and propuse of climate data not always clear/questioned!

Climate data provision

- divers within the different countries
  - Bilateral cooperations
  - Project cooperations
  - Single institutional provision of data
  - Multi-institutional provision of data

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«Linking climate data and impacts with end user needs to enable robust adaptation»

Aim of the workshop

- To structure and link the different downscaling approaches and end-user needs
- Do we meet all demands?

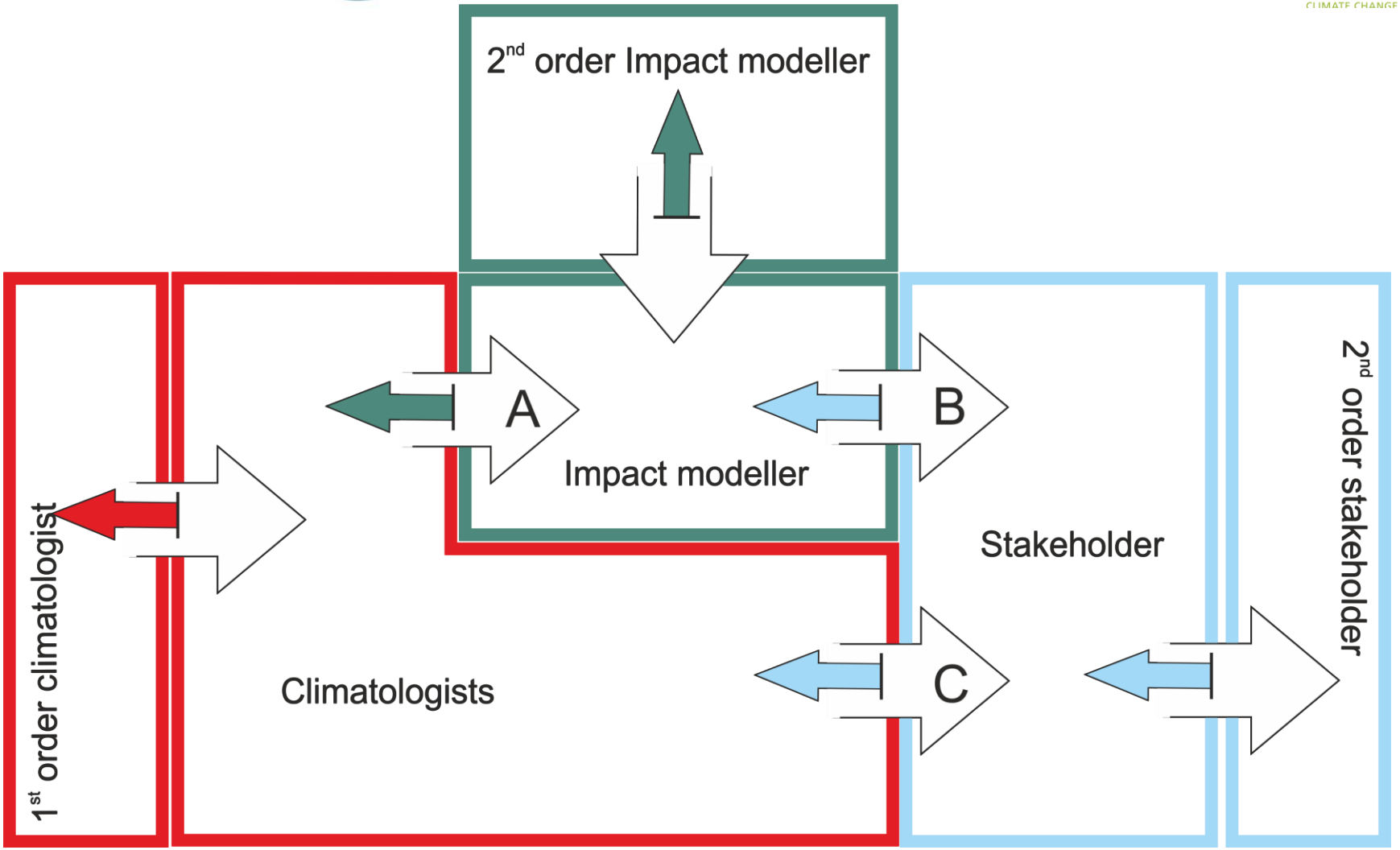
- To elucidate if and how different downscaling approaches add up or can be combined
  «bottum-up» versus «top-down»

- To elucidate how we can improve the communication and understanding between climate/impact communities and stakeholders (transdisciplinarity)

… to enable a robust adaption:

→ Consideration of uncertainties

5. Introducing the pinboards


2nd order Impact modeller
A
B
Impact modeller
1st order climatologist
Climatologists
Stakeholder
C
2nd order stakeholder

Possible outcomes of the workshop

We partly meet the needs

- New methods to develop
- We partly know the needs

We meet needs

- Just communicate it

We don't meet the needs of the end-users at all

- Uncertainties to high
- We don't know the needs
- We don't have the methods

We could meet nearly all needs

- Just a matter of manpower

And combination of methods

pessimistic — optimistic

6. Outlining the program

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