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Assessing the climate change fitness of spatial planning in the Alpine space

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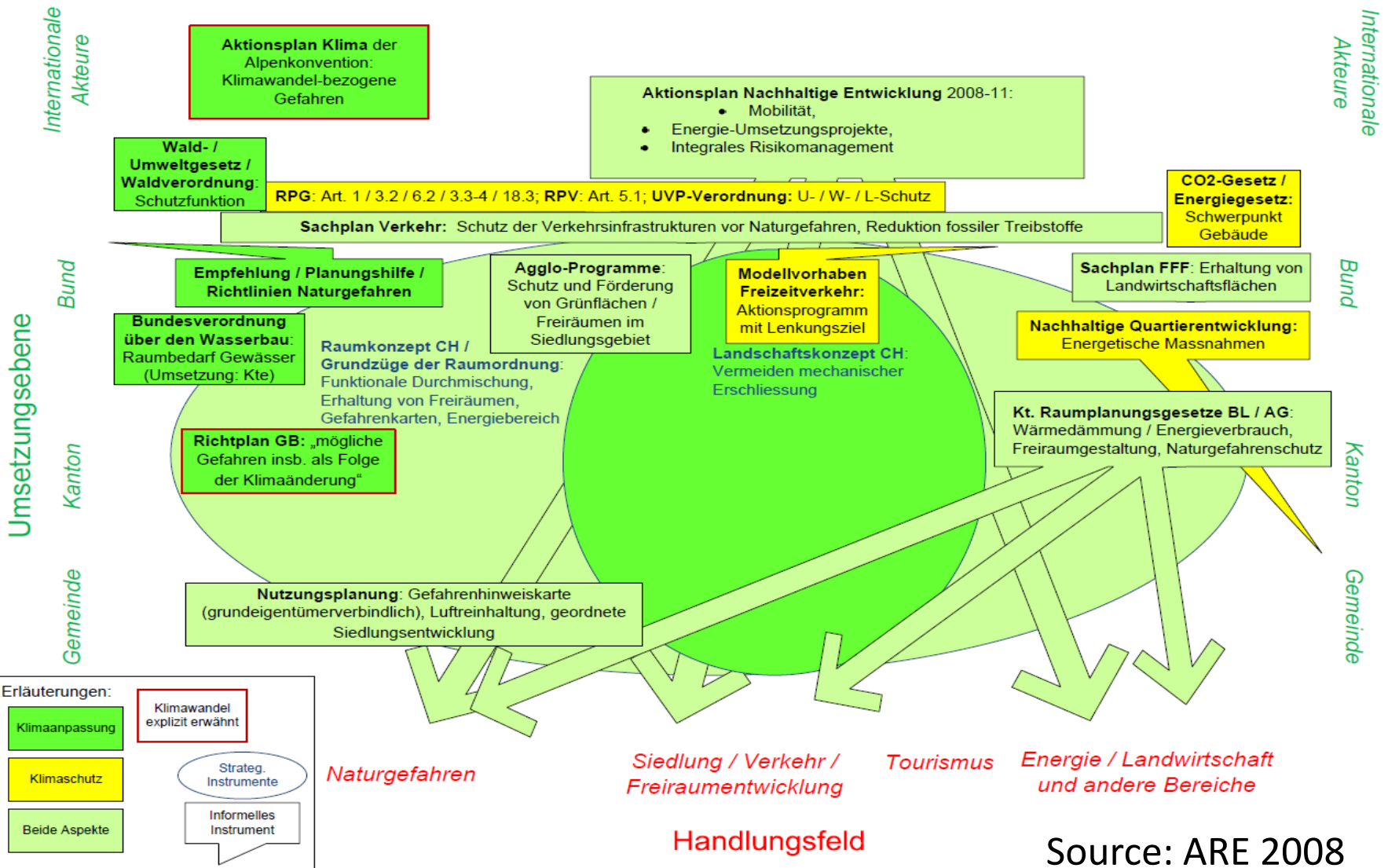
Outline

- 1 Climate change fitness of spatial planning
- 2 Assessing the climate change fitness of spatial planning:
A guidance for planners
- 3 Conclusions

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CLIMATE CHANGE FITNESS OF SPATIAL PLANNING

INTEGRATING CLIMATE CHANGE INTO SPATIAL PLANNING IN SWITZERLAND





Climate Change Adaptation by Spatial Planning in the Alpine Space (CLISP)

- European Territorial Cooperation 2007-2013, Alpine Space Programme
- 2008-2011
- 14 Project Partners: Federal and regional offices for spatial development or the environment (A, D, I, SL, FL; CH)
- Work Packages
 - Vulnerability Assessment
 - **Climate Change Fitness of Spatial Planning**
 - Risk Communication and Governance
 - Climate Proof Planning
- 10 Pilot Regions

CLIMATE CHANGE FITNESS



Climate change fitness refers to the **capacity of spatial planning systems to adapt spatial development and existing spatial structures to climate change impacts**, i.e.

- to moderate potential damages,
- to take advantage of opportunities, or
- to cope with the consequences.

Spatial planning instruments and processes are “fit” for climate change when they support and deliver adaptation, by ...

- raising problem awareness and willingness to adapt,
- strengthening preparedness and the ability to react to climate change impacts,
- increasing the resilience of societies,
- raising flexibility of spatial planning systems to respond to climatic changes and connected uncertainties, and
- integrating short term planning horizons with long-term climate change.



Climate change fitness of spatial planning in Alpine countries (1)

- **Political framework:** National CCA Strategies adopted, launched or in preparation; spatial planning is (often explicitly) addressed as field of action
- **Planning legislation and instruments:** Only very few regulations and instruments address CCA directly
 - + broad range of informal instruments
 - + cooperation between spatial planning and sectoral planning
 - implementation deficits, weak binding character
 - still low problem awareness



Climate change fitness of spatial planning in Alpine countries (2)

- **Knowledge:** Lack of local/regional climate scenarios, impact studies, risk analyses, vulnerability assessments; uncertainty
- **Coordination:** vertical coordination (between spatial planning levels) and horizontal cooperation (with sectoral planning) is established, but often needs to be strengthened
- **Resources (financial, staff):** important, but low budgets and lack of human resources; advanced training in CCA for planning staff is required; unsolved question: who pays for adaptation?
- **Experiences, Pilot Projects, Good Practice:** yes, but strong focus on natural hazards (without referring to CC)

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Assessing the Climate Change Fitness of Spatial Planning A Guidance for Planners



Schweizerische Eidgenossenschaft
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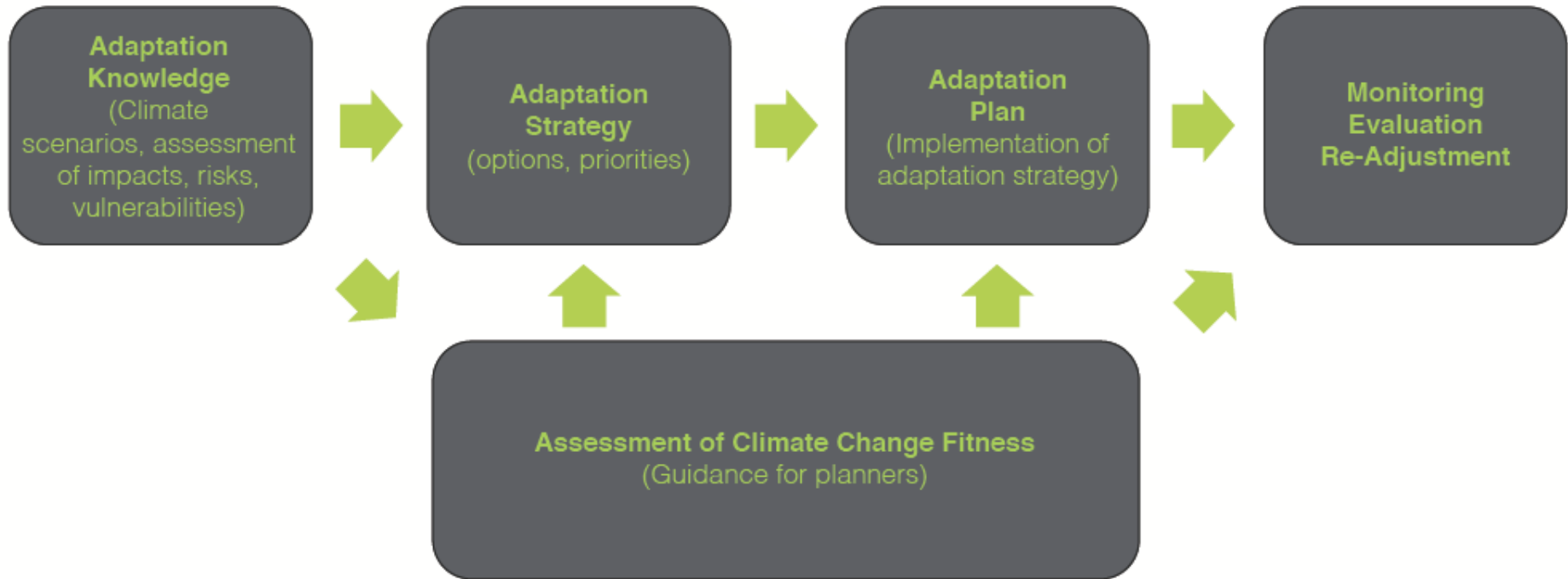
Bundesamt für Raumentwicklung ARE



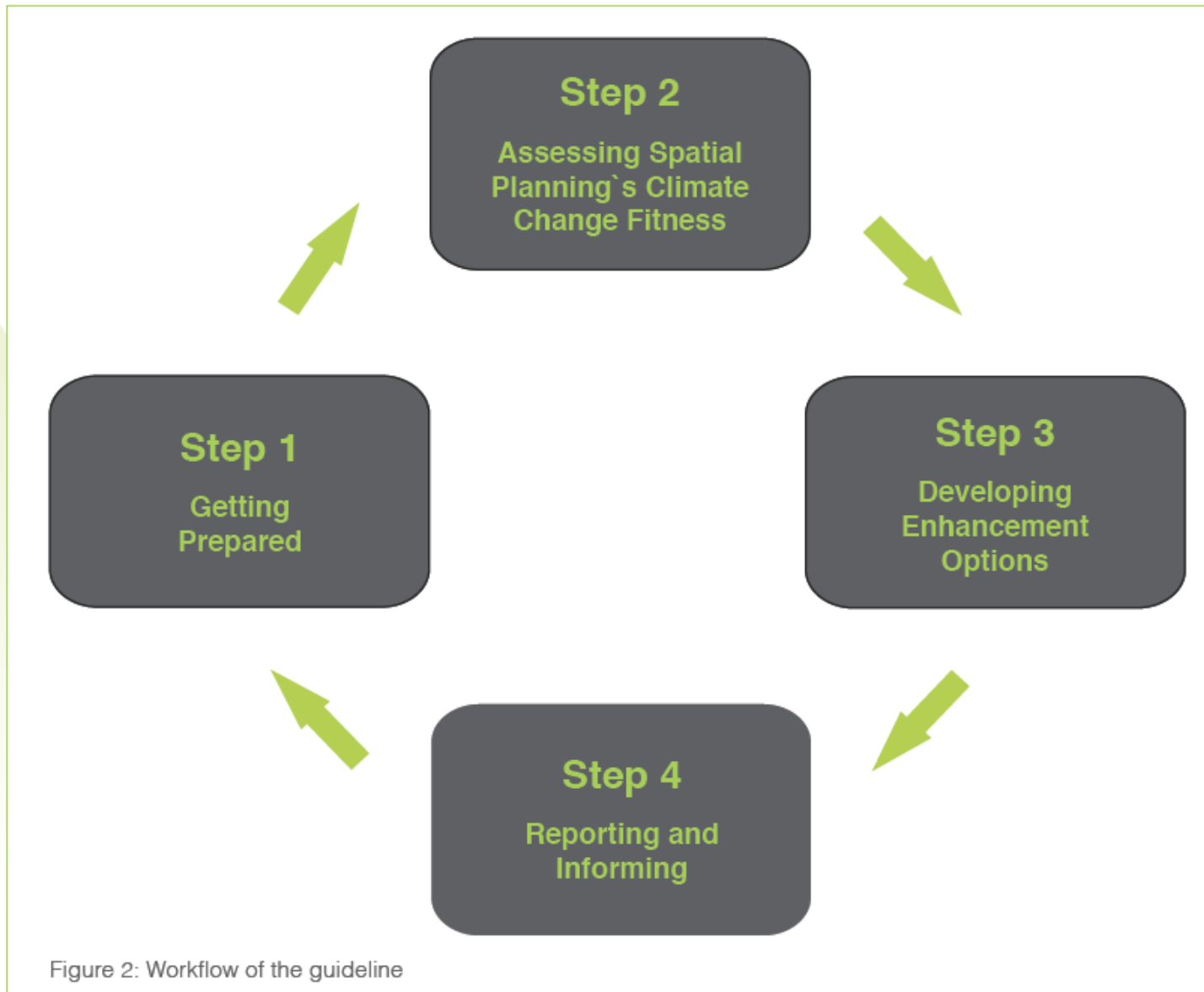
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A comprehensive climate adaptation process incl. an assessment of climate change fitness



Assessment guidance: four steps



Step 2: Assessing the climate change fitness of spatial planning

Tasks

- 2.1 Define criteria for the assessment of the climate adaptation fitness of spatial planning
- 2.2 Define assessment methods
- 2.3 Collect climate change information, data and knowledge
- 2.4 Conduct the actual assessment → **Checklist**
- 2.5 Identifying strengths and weaknesses of spatial planning policies and instruments

Assessment Checklist

1

My spatial planning policy or instrument is fit for climate adaptation, if regional adaptation challenges are addressed.

Rationale:

Climate adaptation must to be informed and evidence-based.

Climate adaptation must to respond to current climate sensitivities and future climatic changes, climate change impacts, and vulnerabilities.

Climate adaptation action needs to consider the regional context and to be regionally specific.

Regional adaptation challenges are addressed by providing ...:

Open, green and blue spaces: My spatial planning policy or instrument provides regulations, designations or content for:

- The conservation of open space ✓
- Ecological landscape connectivity (e.g. networking of protected areas, wildlife corridors, migration axes) ✓
- Corridors for runoff water ✓
- Networks of green and blue spaces in urban areas and agglomerations („green infrastructure“) ✓
- Brownfield site recycling ✓
- Preservation of natural carbon sinks (e.g. wetlands, peat bogs) ✓

Heat in urban areas, water resources, tourism, natural hazards, energy, transport and other technical infrastructre

Assessment Checklist

2

My spatial planning policy or instrument is fit for climate adaptation if decision making processes are well connected and coordinated across different levels and policy fields or sectors.

Rationale:

Climate adaptation is a cross-cutting task that needs the involvement of stakeholders and planning domains from all sectors to be effective.

Characteristics of well-connected decision-making processes:

- Strong expert network is set up across all relevant sectors and institutions ✓
- Climate change adaptation is accepted by every stakeholder as an everyday planning issue ✓
- Risk communication concept is in place ✓
- Risk governance process is in place ✓

Assessment Checklist

3

My spatial planning policy or instrument is fit for climate adaptation if the shared benefits of linking adaptation to mitigation and regional development are achieved.

Rationale:

Climate adaptation needs to be strategically aligned with other strategies to be effective.

Characteristics of the shared benefits of linking adaptation to mitigation and development:

- Coordination and cooperation mechanisms with other strategies are in place ✓
- Synergies and potential conflicts are identified and addressed ✓
- Adaptation options have been audited for possible negative effects on sustainability, the environment, social groups, and other sectors ✓
- Adaptation options have been checked for maladaptation risks ✓
- Priorities for climate adaptation are set and coordinated with other relevant strategies ✓

Assessment Checklist

4

My spatial planning policy or instrument is fit for climate adaptation, if adaptive capacity is high and/or increasing.

Rationale:

Climate adaptation is an ongoing and iterative process and needs to bring about transformation.

Characteristics of high/increasing adaptive capacity:

- Political will for adaptation exists and is strong ✓
- Policy makers and stakeholders are aware of the need for action ✓
- Sufficient resources are available ✓
- Implementation is ongoing ✓
- Incentives and national/regional climate change adaptation programmes are in place ✓
- Uncertainties are dealt with in a pro-active and precautionary approach ✓
- No/low-regret measures have been identified and are being implemented ✓
- Planning instruments and procedures are flexible enough to cope with climatic changes and to respond to the availability of enhanced and new knowledge ✓
- Short-term action considers long-term climatic processes ✓
- Adaptive planning and management procedures, including monitoring and evaluation, are being applied and linked with regular revision cycles for spatial plans ✓

Assessment Checklist

5

My spatial planning policy or instrument is fit for climate adaptation if a sound system of monitoring regional climate change impacts or risks is in place (with particular reference to spatial planning).

Rationale:

Climate adaptation needs to understand the regional adaptation challenge better.

Characteristics of sound monitoring:

- A monitoring system for spatially relevant climate change impacts has been established. ✓
- Examples of indicators for monitoring regional climate change impacts include the size of heat islands, and damage potential per zoning area. ✓

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CONCLUSIONS



CLIMATE PROOF PLANNING

Principles of good adaptation governance

- (1) Address local or regional adaptation challenges
- (2) Connect and coordinate decision making processes across levels, policy fields and economic sectors
- (3) Achieve shared benefits by linking adaptation to mitigation and to regional development
- (4) Increase adaptive capacity
- (5) Monitor climate change impacts, risks and adaptation

MAINSTREAMING CLIMATE ADAPTATION

Barriers to incorporate climate adaptation into spatial planning

- Restrictive adaptation measures are difficult to argue in the face of too many uncertainties.
- There is a lack of political will to adjust the planning system.
- More financial and /or human resources are needed.
- Issues related to climate change impacts and adaptation are difficult to communicate.
- There still is a lack of policy targets at EU and national level.
- Planning legislation does not explicitly consider adaptation issues.

CLIMATE ADAPTATION CHALLENGES FOR SPATIAL PLANNING

- Planning with reference to extreme events AND long-term transformations → Time Scales
- Planning with growing uncertainties → Scenarios
- Climate Mainstreaming, Climate Proofing
→ Strategic Environment Assessment
- Low Carbon Planning, Zero Emission Cities
→ New strategies, concepts (Leitbilder)
- Planning the future = Dealing with today's buildings, infrastructure
→ Shrinking, relocating, downscaling
- Planning of critical infrastructure → vs. basic infrastructure for everybody everywhere (equal accessibility)

THANK YOU

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