

Regional Adaptation Strategies

17 June 2009



Guidelines for the formulation of Regional Adaptation Strategies

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GOAL

- To collate views and experience of the experts
- To test the relevance of the proposed guidelines
- To identify the most appropriate presentation of the guidelines

PART 1

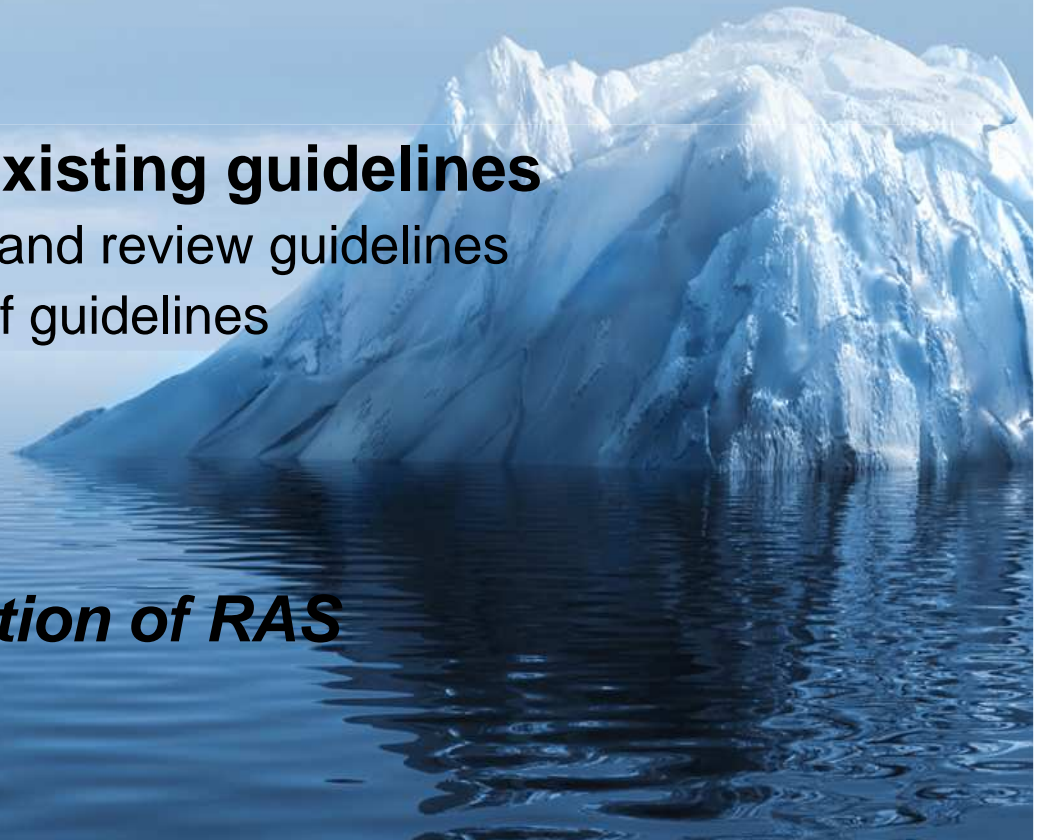
Findings of the review of existing guidelines

- Methods used to identify and review guidelines
- Geographical coverage of guidelines
- Key features and gaps

PART 2

Guidelines for the formulation of RAS

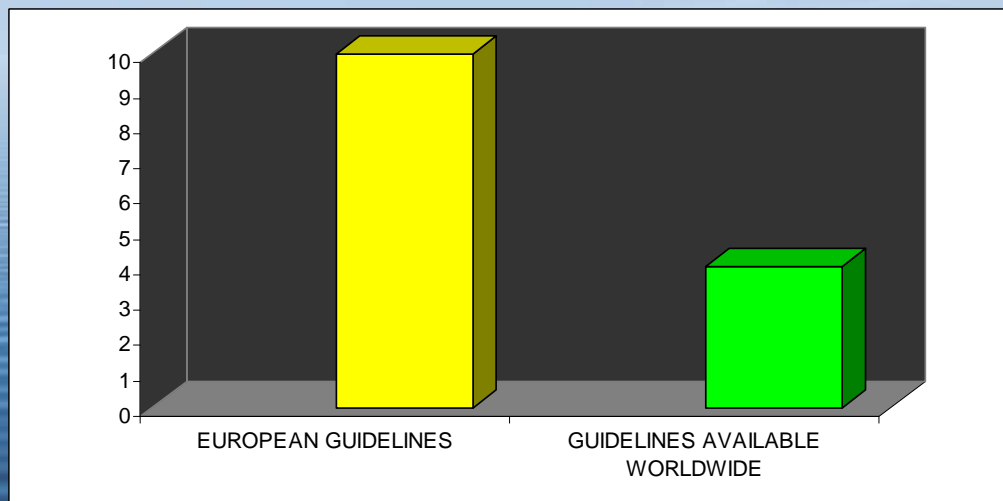
- Step by step guide
- Discussion



PART I
**Review of existing
guidelines**

METHOD EMPLOYED

- Screening of RAS inventory
- Literature review of guidance documents to identify key stages, features and tools
- Personal communication and project team experience

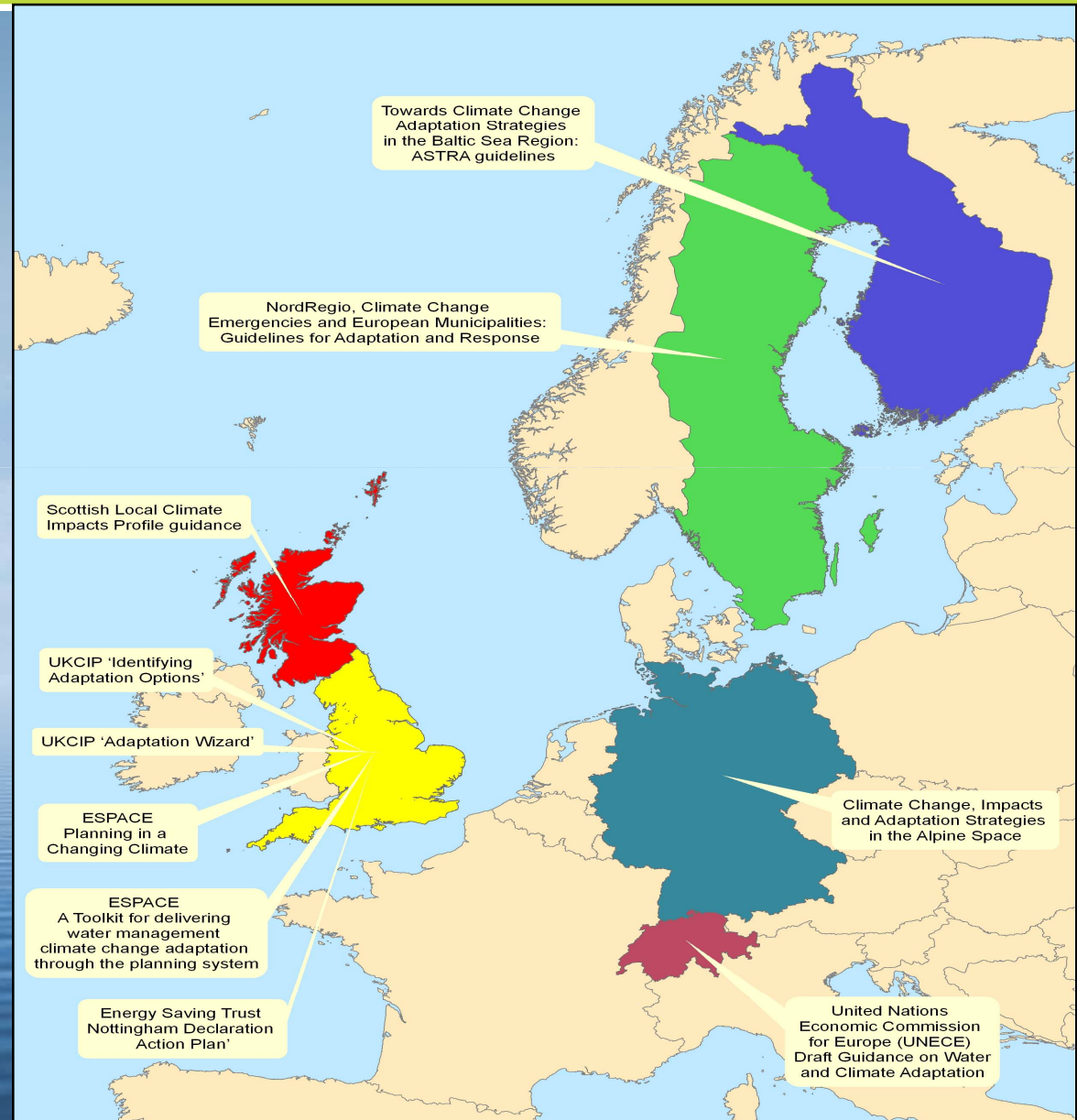


OUTCOMES

- 14 documents reviewed
 - 10 within EU
 - 4 non-EU

Geographical coverage of guidelines

- A sample of what is available to represent a broad spectrum of guidance developed within the EU
- Some guidance are the results of the effort of teams spread over a number of countries



- **Australian Government** 'Climate Change Impacts & Risk Management Guide for Business and Government'
- **International Council for Local Environmental Initiatives (ICLEI)** guidance 'Preparing for Climate Change: A Guidebook for Local, Regional and State Governments'
- **United Nations Development Programme (UNDP)** 'Formulating an Adaptation Strategy'
- **USAID** 'Guidance Manual for Development Planning'



Establishing a knowledge base (14/14)

Stakeholder engagement (10/14)

Embedding strategies within existing policy (5/14)

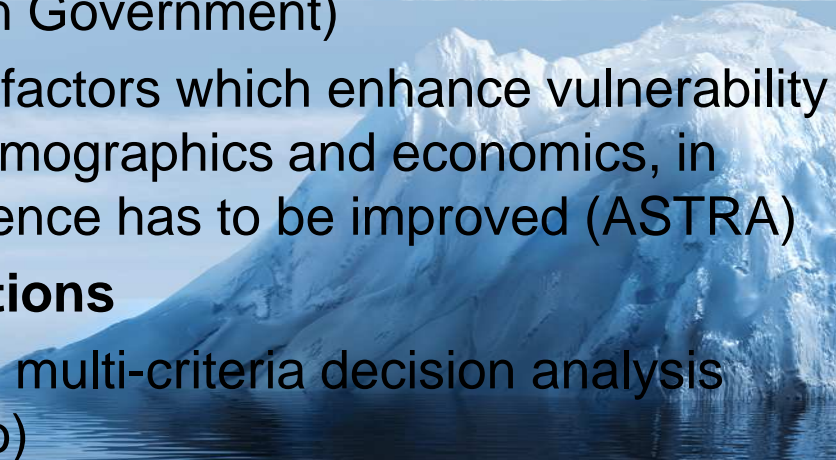
Gaining political backing (5/14)

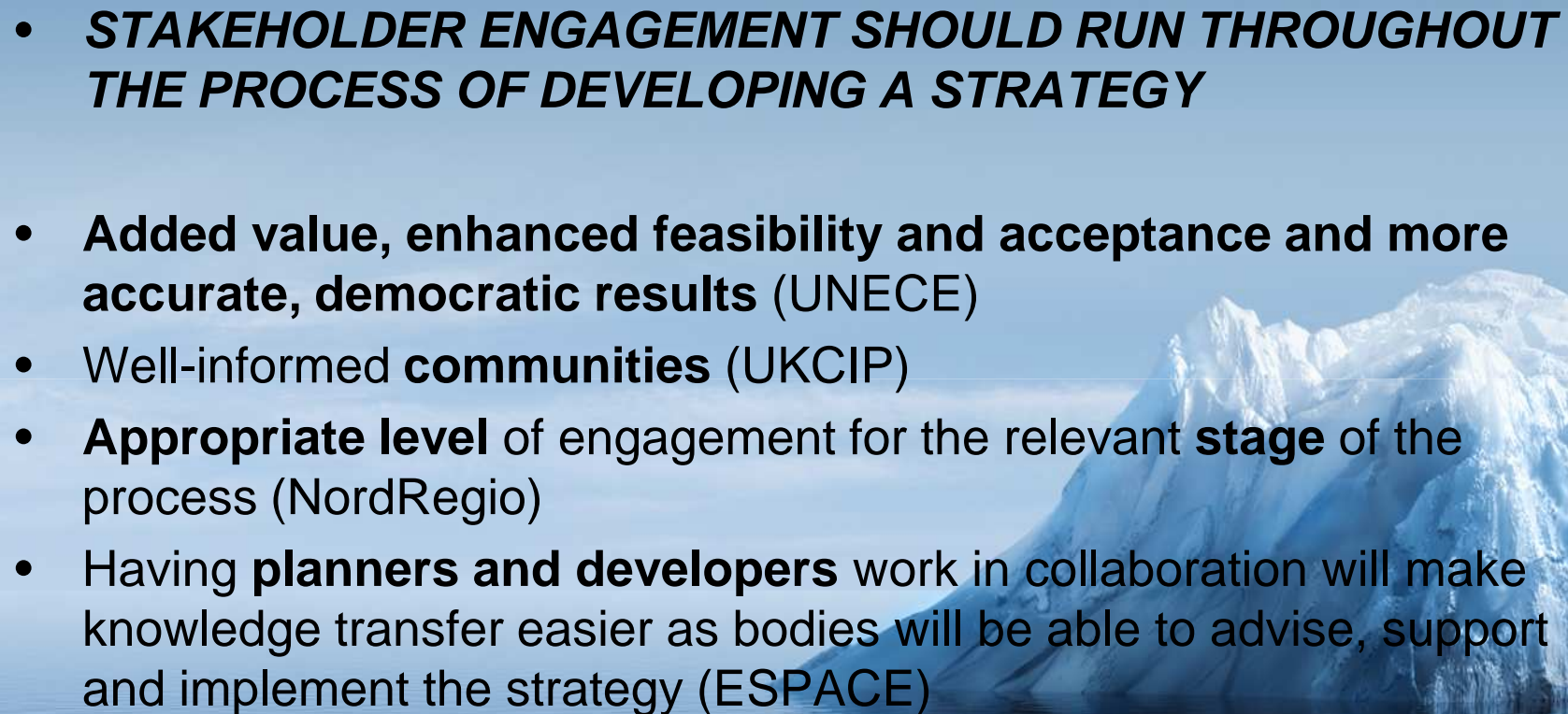
- **Common steps for developing a strategy**
 - identification and selection of adaptation options (14/14)
 - monitoring, evaluation and review (12/14)
 - identification of key risks and vulnerabilities (9/14)

Strategy for climate change emergencies

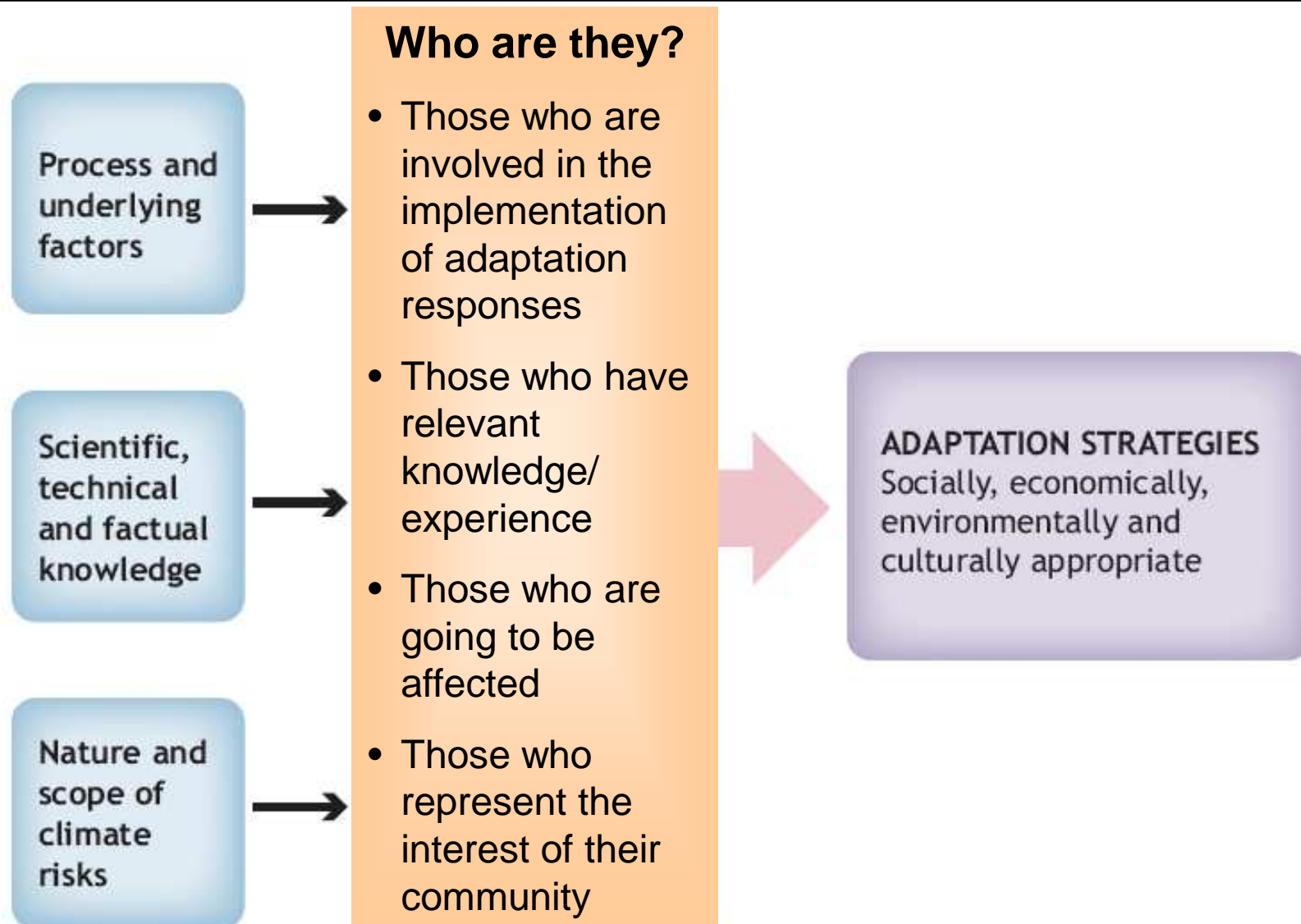


Establishing a knowledge base

- **Climate change scenarios:** IPCC, PRUDENCE and others
 - **Risk assessment**
 - Consequence of impact X probability (ICLEI)
 - Rank risks as low, medium or high
 - **Vulnerability assessment**
 - Media trawl of recent, extreme weather events to highlight sensitivity (LCLIP, Australian Government)
 - Climate and socioeconomic factors which enhance vulnerability should be assessed, e.g. demographics and economics, in order to identify where resilience has to be improved (ASTRA)
 - **Assessment of adaptation actions**
 - Use of cost-benefit analysis, multi-criteria decision analysis (ASTRA, UNECE, Nordregio)
- 
- A large iceberg floats in the ocean, with its tip visible above the water and a much larger portion submerged. The water is a deep blue, and the sky is a lighter blue. The iceberg is white and jagged, with some blue ice visible on its surface.

- ***STAKEHOLDER ENGAGEMENT SHOULD RUN THROUGHOUT THE PROCESS OF DEVELOPING A STRATEGY***
 - **Added value, enhanced feasibility and acceptance and more accurate, democratic results (UNECE)**
 - Well-informed **communities** (UKCIP)
 - **Appropriate level** of engagement for the relevant **stage** of the process (NordRegio)
 - Having **planners and developers** work in collaboration will make knowledge transfer easier as bodies will be able to advise, support and implement the strategy (ESPACE)
- 
- A large iceberg floats in the middle of a calm, blue ocean. The iceberg is white and jagged, with a significant portion of its mass submerged below the water's surface. The water is a deep blue, and the sky is a lighter, clear blue. The overall scene is serene and emphasizes the concept of hidden potential or the 'tip of the iceberg' metaphor.

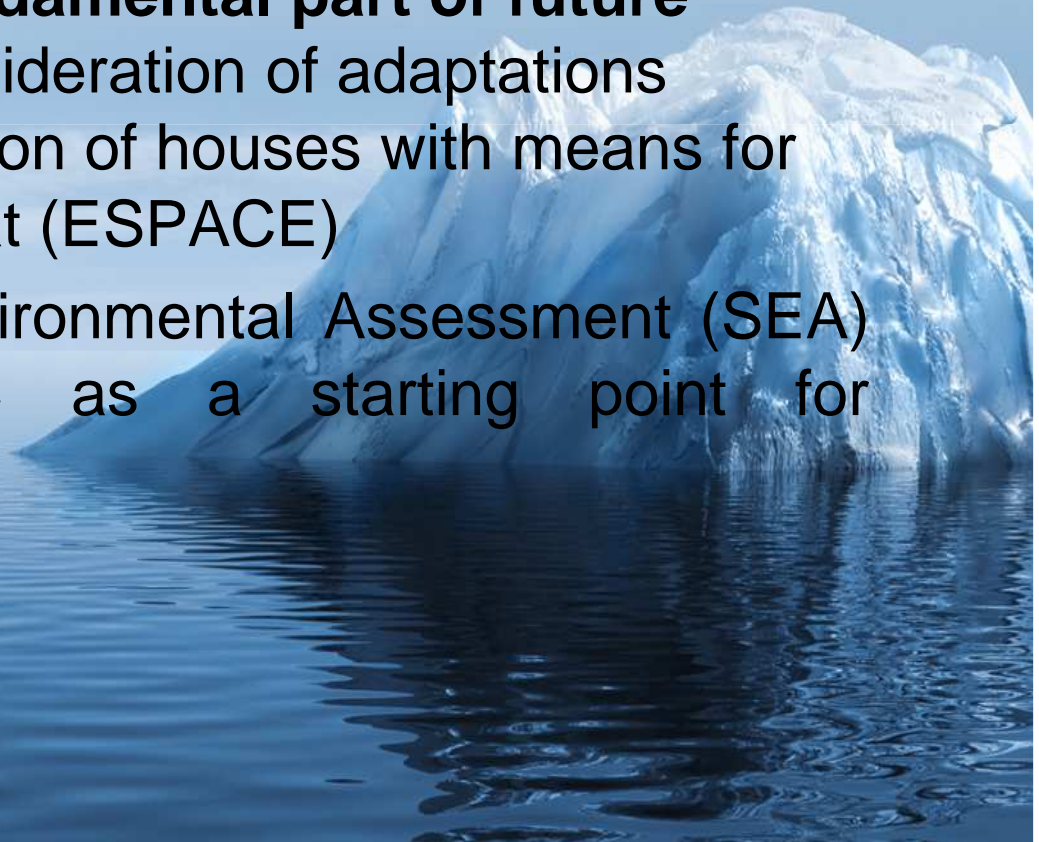
Roles and responsibilities of stakeholders



Source: UKCIP 'Identifying Adaptation Options'

- Make a **statement** about risk attitude and **motivation** for developing strategy (UKCIP Adaptation Wizard)
- What do if backing cannot be obtained should be addressed. **Project Leader** and **Core Team** should be established (Nottingham Declaration)
- Set up '**preparedness group**' with a climate champion to liaise with public - Ensure strategic approach to adaptation (ICLEI)
- Define the **roles and responsibilities** of institutions in view of climate change adaptation – (UNECE)

- Ensure adaptation is well **integrated within existing policies, plans and projects** to allow for effective implementation (UNDP)
- Make adaptation **a fundamental part of future planning** through consideration of adaptations needed, e.g. construction of houses with means for minimising internal heat (ESPACE)
- ASTRA: Strategic Environmental Assessment (SEA) Directive 2001/42/EC as a starting point for integration



Gaps and constraints in existing guidance

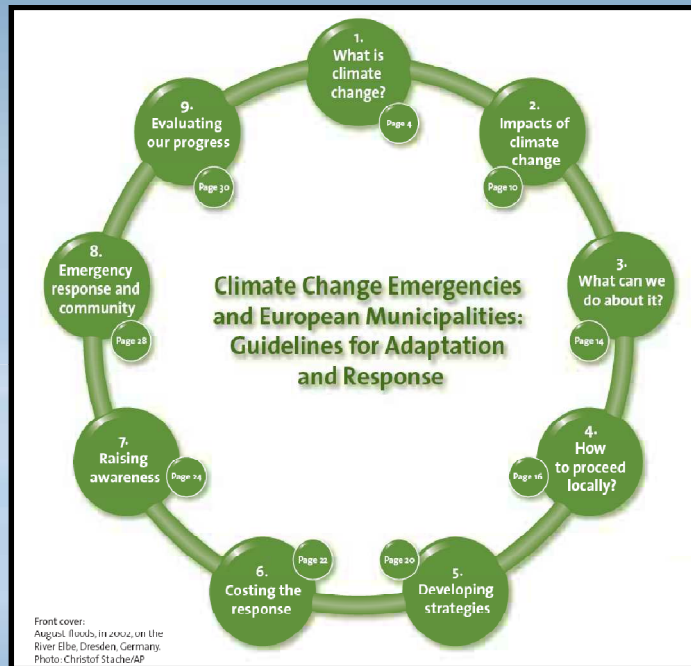
GAPS

- **Objective setting** – important to monitor progress of strategy
- **Costing**

CONSTRAINTS

- **Uncertainty and lack of data**
 - Use of ‘no regrets’, ‘low regrets’ and ‘win-win’ adaptation options (ICLEI)
- **Transboundary cooperation**
- **Misunderstanding of adaptation** – need for continuous dialogue between actors





- **Key features:**
 - gaining political and managerial backing
 - embedding adaptation within existing policies
 - establishing a knowledge base
 - continuous stakeholder engagement
- Proposed guidelines tend to follow a similar approach
- Gaps and constraints to be overcome


PART II

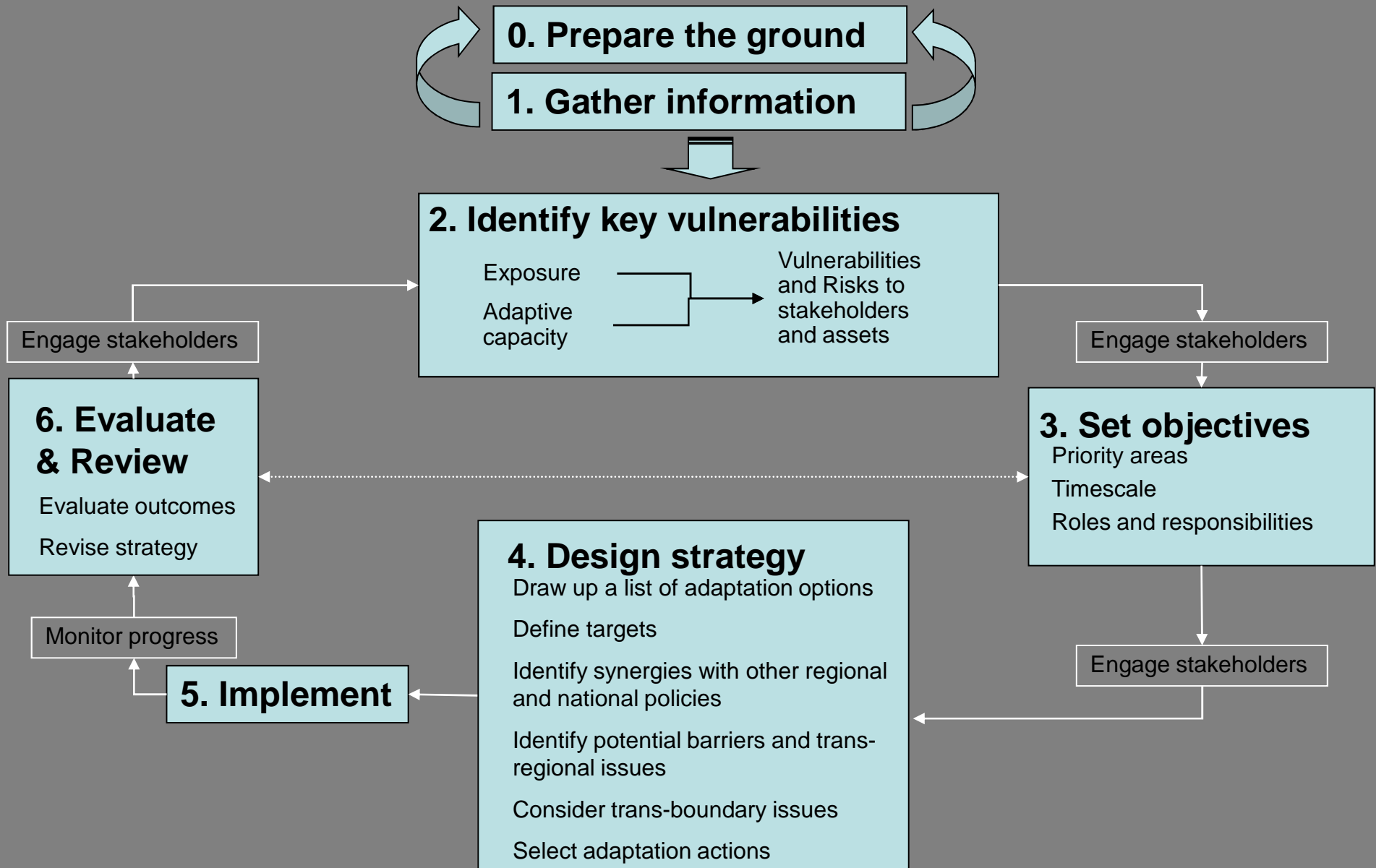
Proposed guidelines

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- 1. Review of existing guidance documents**
 - 2. Standardise stages (some overlap)**
 - **Between 4 and 8 stages**
 - 3. Filter for regional-specific approach**
 - 4. Consolidate & Summarise**
 - **For each stage the guidance:**
 - **Information sources**
 - **Barriers**
 - **Solutions**
 - 5. Draft new guidance**
- 
- A large, jagged iceberg of white ice floats in a deep blue ocean under a clear sky. The water's surface is calm with subtle ripples, and the iceberg's reflection is visible in the water below.



Stage 0 : Prepare the Ground



GOAL

To prepare the ground & signal intent

WHAT

- **Secure political commitment**
- **Decide RAS leader and core team**
- **Identify stakeholders**
 - *Internal:* executive & departments of regional authority (e.g. health, transport, etc)
 - *External:* research community, business, communities, etc
- **Engage Stakeholders**

OUTPUT

Public commitment to RAS and list of committed stakeholders

Stage 1: Gather Information

GOAL

- *To build a solid evidence base and gather information and tools that will be put to use in the RAS*

WHAT

- **Information on previous weather events**
- **Recent observed trends in climate within the region**
- **Projections of future climate change (and impacts)**
- **Relevant non-climate information**
 - **Existing risk priorities**
 - **Previous non-climate disasters (e.g. earthquake)**
 - **Critical infrastructure**

OUTPUT

- **Relevant databases set-up, preparatory research complete, tools selected**



Stage 2: Identify Key Vulnerabilities & Risks

GOAL

- *Identify vulnerable sectors, socio-economic groups, assets and spatial areas and specific risks*

WHAT

1. **Understand possible future climate scenarios**
 - Short term variability & long term climate change
2. **Identify climate change impacts in the region**
3. **Assess *EXPOSURE* and *SENSITIVITY* of assets and communities**
4. **Assess *ADAPTIVE CAPACITY* of each system**
5. **Determine Vulnerability of each system**
6. **Assess and Prioritise Risks**

OUTPUT

- *List of key vulnerabilities and risks –to define objectives for the RAS*

Post-Stage 2: Stakeholder Engagement



GOAL

Agree a list of priorities for the RAS

WHAT

- Information from Stage 2 is used to discuss, rank and agree the priorities for the region
- Best achieved through Stakeholder 'Working Session'
 - Option A: present climate science and assess vulnerability and risks together
 - Option B: present results of Stage 2 and agree discuss priorities

Output

Agreed list of priorities for the RAS

Stage 3: Set Objectives

GOAL

Agree objectives that will guide the RAS

WHAT

- SMART Objectives :
 - Specific
 - Measurable
 - Achievable
 - Realistic
 - Time-framed
- Based on outputs of Stage 2 (Key vulnerabilities and Risks)
- Agreed with stakeholders
- Specify which organisations/ individuals will deliver (with their buy-in)
- Align with existing regional strategies, e.g. Spatial or Economic Strategies

OUTPUT

Agreed objectives, clearly scoped strategy



Stage 4: Design Strategy

GOAL

Create a RAS to deliver the objectives

1. Draw up an initial list of potential adaptation options
2. Define targets & Set up 'Steering Group'
3. Identify synergies with existing policies and institutional frameworks through which to deliver adaptation
4. Identify potential barriers to implementation
5. Consider trans-boundary issues
6. Assess costs
7. Assess the impacts of the adaptation options
8. Select adaptation options
9. Design adaptation options

OUTPUT

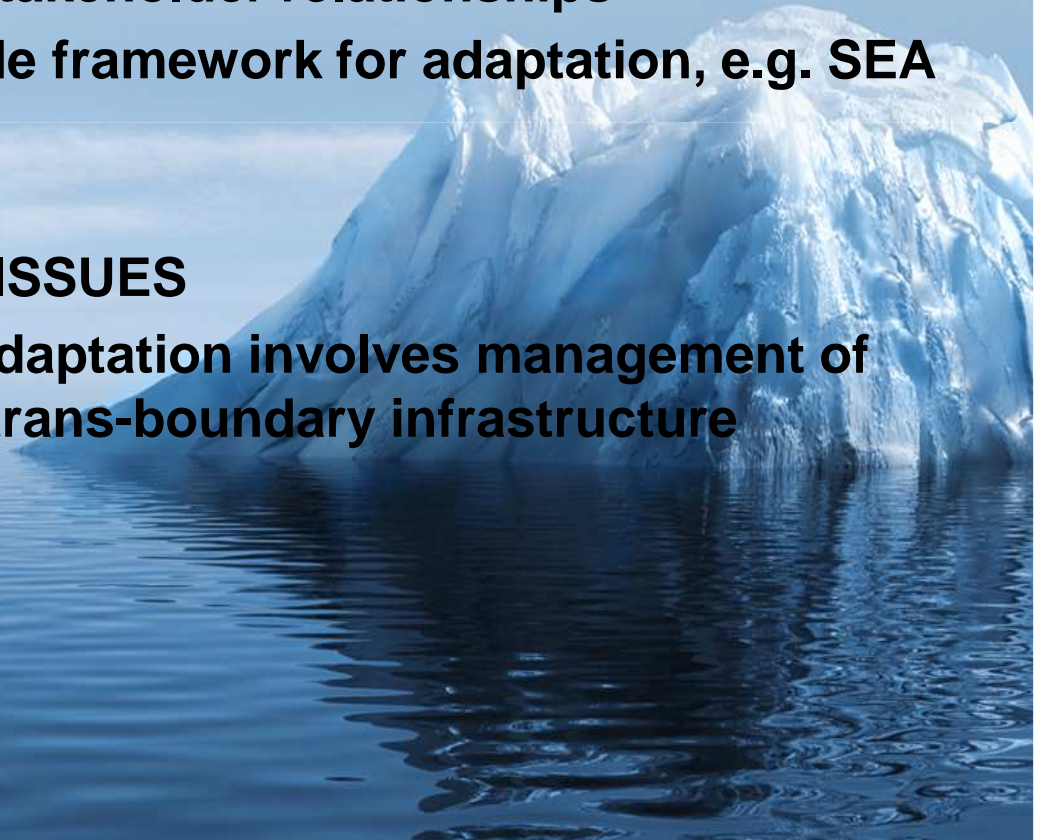
Final Strategy document

IDENTIFY EXISTING POLICIES AND FRAMEWORKS: *MAINSTREAMING*

- Existing spatial, economic or other strategies and emergency plans
- Existing partnerships and stakeholder relationships
- Existing policies that provide framework for adaptation, e.g. SEA Directive

CONSIDER TRANS-BOUNDARY ISSUES

- Especially where regional adaptation involves management of river basin, ecosystems or trans-boundary infrastructure



Assess costs

- **Guidance will reflect current best practice on assessing costs and benefits in relation to impacts and adaptation**

Assess the impacts of adaptation options: avoid mal-adaptation

- **Mini-sustainability appraisal of options**
- **Consider impact of adaptation options on GHG emissions**
- **Also consider social impacts and wider sustainability issues**

STAKEHOLDER ENGAGEMENT is a major feature throughout Stage 4

Stage 5: Launch & Implement



GOAL

Generate momentum and buy-in & put the Strategy into practice

WHAT

- Public launch with:
 - senior members of regional authority
 - influential stakeholders
 - media participation
- Implementation Plan involves wide variety of stakeholders
- Important to refer to best practice during implementation
 - Some problems with sharing BP across language barriers in EU

OUTPUT

Strategy fully implemented in partnership with stakeholders

Stage 6: Monitor, Evaluate & Review



GOAL

Continually monitor and assess success of Strategy implementation

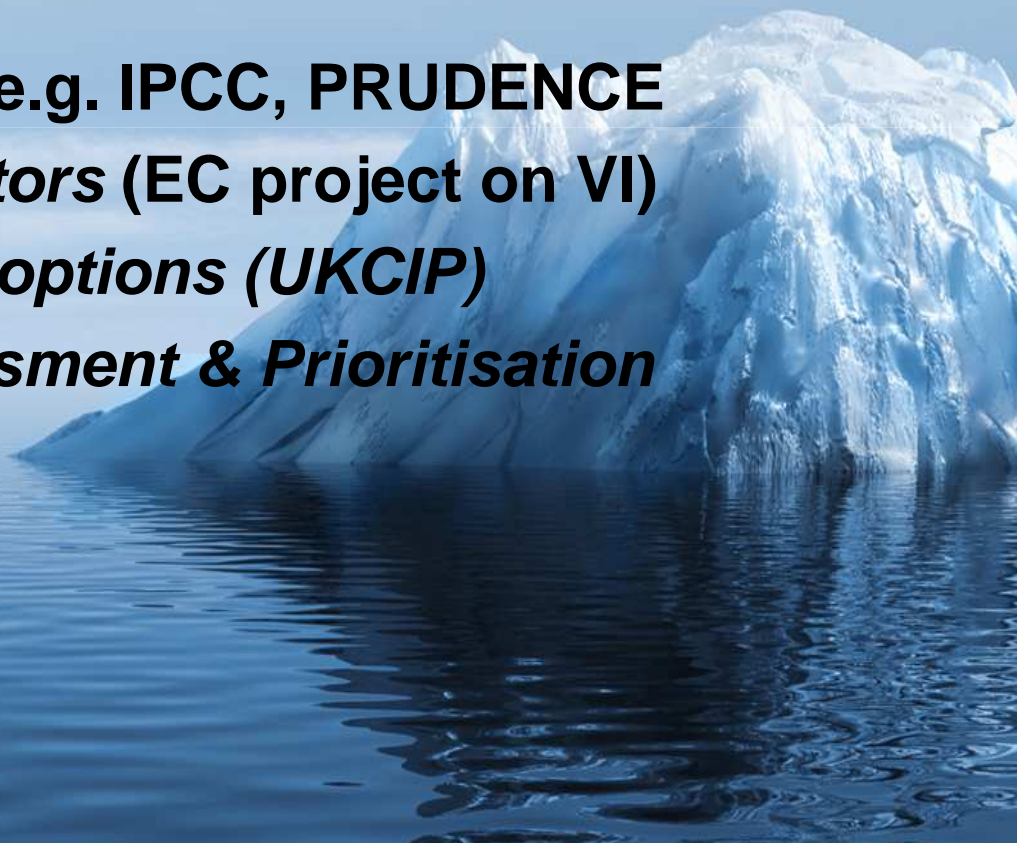
WHAT

- Based on targets as set out in Stage 4
- Overseen by RAS Steering Group
- Follow principles of participatory decision-making:
 - Involve wide range of stakeholders
- Lessons learned and successes celebrated
- Formal evaluation leads in to 2nd iteration of the RAS

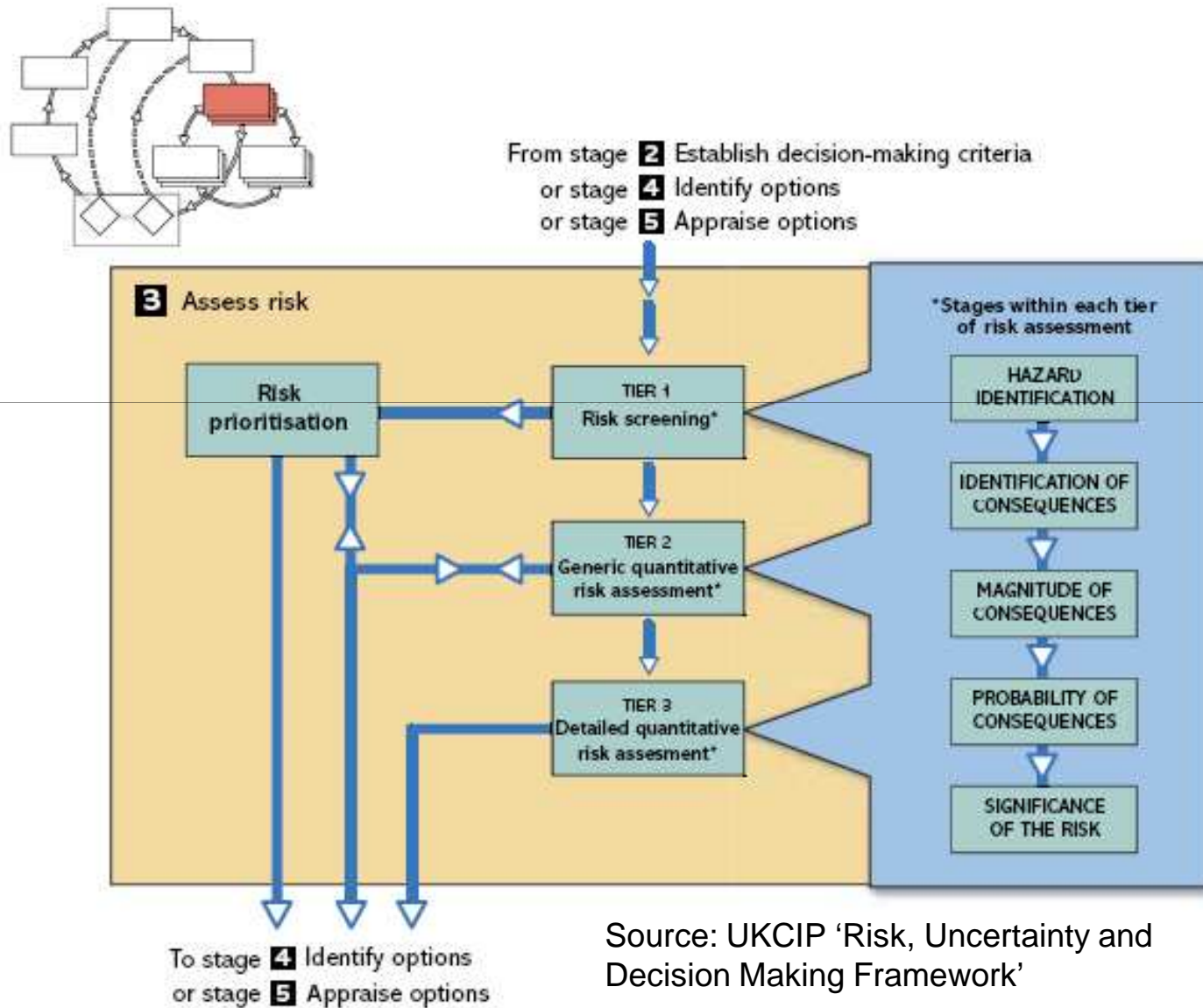
Output

Re-assessment of risks, based on results of implementation

- **Various tools are available and will be sign-posted in the guidance**
 - ***Local Climate Impacts Profile (Swedish approach/ Scotland/ UKCIP)***
 - ***Climate Scenarios: e.g. IPCC, PRUDENCE***
 - ***Vulnerability Indicators (EC project on VI)***
 - ***Costing adaptation options (UKCIP)***
 - ***Climate Risk Assessment & Prioritisation Methodology***



Risk assessment model

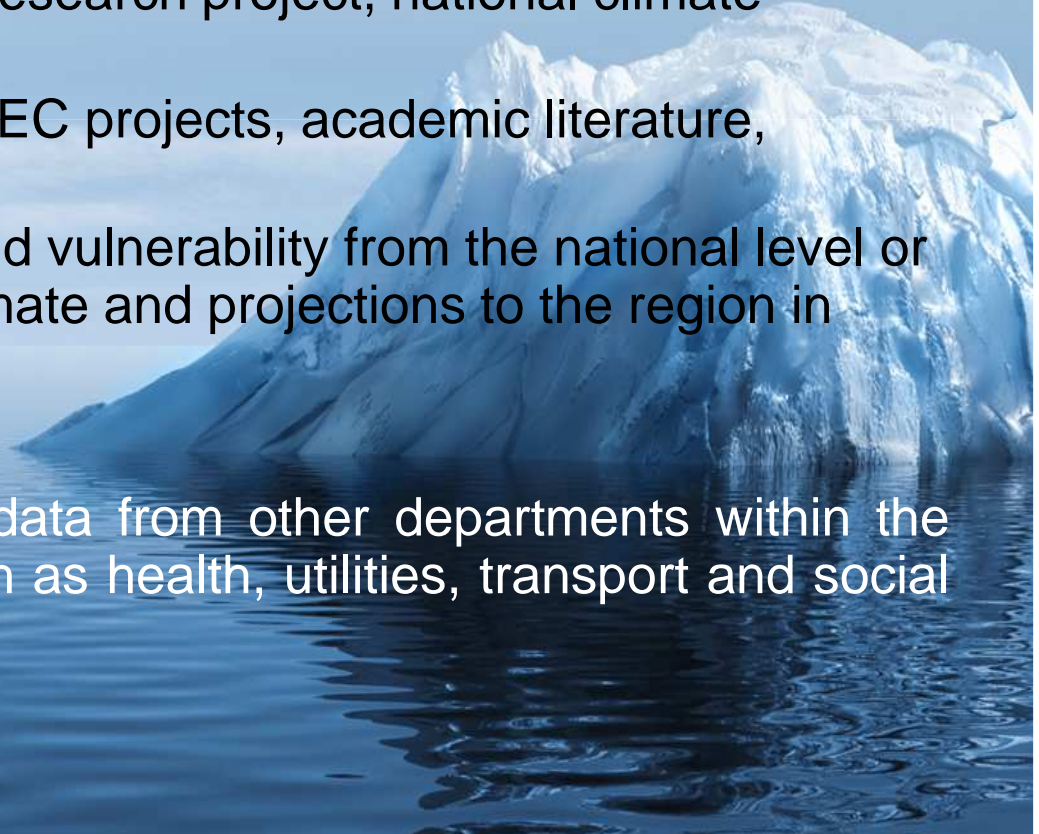


- ***External***

- Existing information on climate vulnerability, change and socio economic trends
- Information on past climate events and observed climate trends
- Climate scenarios (specific research project, national climate change projections, etc)
- Impacts assessments (from EC projects, academic literature, national projects)
- Reports on impacts, risks and vulnerability from the national level or from regions with similar climate and projections to the region in question

- ***Internal***

- Archives and collection of data from other departments within the regional administration, such as health, utilities, transport and social care



- **BARRIERS**

- Large and fragmented existing evidence base on climate change impacts, vulnerability and risk
- Much of the relevant information is complex, often scientific literature, which is not easy to digest for the purposes of developing RAS.
- It may be difficult for lead authorities and stakeholders to agree specific objectives.
- Designing the strategy can be a resource-intensive undertaking and requires investment of time and resources

- **SOLUTIONS**

- The Adaptation Clearinghouse will provide a platform for exchanging information on climate impacts and adaptation measures.
- Working in partnership with local stakeholders and climate change partnerships
- Involve stakeholders and gain political backing as early as possible in the strategy formulation process

- ***Who should the guidance be targeted at?***
 - Climate change officers?
 - Environmental offices (with background CC knowledge)?
 - All regional authority offices (no CC knowledge)?
- ***What type of presentation is appropriate for regional authorities?***
 - Lengthy detailed document?
 - Short summary model?
 - Idealised check-list (with little detail)
 - Web-based guidance with links to more detailed info
- ***What processes and tools for selection of adaptation measures can be used in RAS?***
- ***What do you see as the key challenges related to the formulation of RAS?***
- ***What should be taken into consideration while drawing an initial list of potential adaptation measures? What type of measures can be distinguished?***

Thank you for your
contributions

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