CAPA

Climate Adaptation Platform for the Alps

Introduction, overview and added value

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Action Group 8

From information overload to usable knowledge and to effective action

Cartoons: ©Jochen Bürgel, created by Simon Kneebone

HERE ARE ALL THE RESULTS YOU MIGHT NEED

Smart knowledge provision...

- *significant, usable, useful*
- *selected, edited and quality-checked by experts*
- *clearly organised, accurately retrievable*
- *direct access to relevant resources*

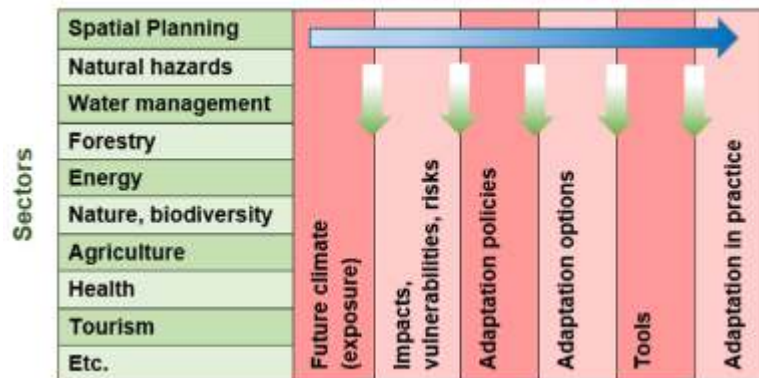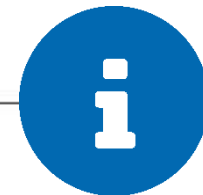**...for informed decision-making & competent action**

Lost in information...

- *usable?*
- *relevant?*
- *supports my decisions?*
- *where to get started?*
- *how to find what I really need?*

...too little uptake of available knowledge → limits capacities & know-how for implementation

Adaptation Knowledge Domains

Sectors	Future climate (exposure)	Impacts, vulnerabilities, risks	Adaptation policies	Adaptation options	Tools	Adaptation in practice
Spatial Planning						
Natural hazards						
Water management						
Forestry						
Energy						
Nature, biodiversity						
Agriculture						
Health						
Tourism						
Etc.						

CAPA – Climate Adaptation Platform for the Alps

- Only **transnational knowledge portal** for **climate adaptation** in the **Alpine macro-region**

- Central gateway, online directory and knowledge management infrastructure

- **Fills** the **transnational gap** in brokerage of adaptation knowledge between EU and national levels

- Maintained and advanced under the umbrella of **EUSALP AG8**

- **Allows users to enter their own resources**

www.capa-eusalp.eu
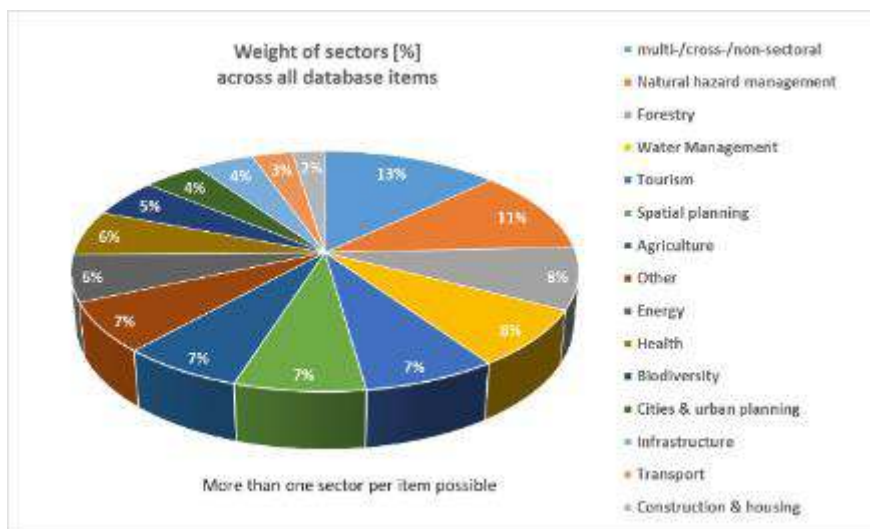
Platform contents: comprehensive coverage

- Clear **relevance** to climate adaptation in Alpine macro-region

- **Transnational** scope, all **Alpine** territories, **mountain** relevance

- From transnational to local **scale**, supporting **multilevel** governance

- Diverse **types** of knowledge **products & formats** (*reports, guidance, tools, policy documents, web portals, practice examples, map-based resources…*)

- **Multilingual** resources: English and all national Alpine languages (GER, FR, IT, SLOV)

- Products from **diverse sources** and **contexts** (*EU funding, national research, pilot programs, administrative contract research, grey literature…*)

- **Transboundary** adaptation issues

- Contents that are **transferable**, **replicable** or **customizable** to other contexts

WHAT

Platform contents: comprehensive coverage

- All types of **climate change impacts** and **climate hazards**
- All types of **adaptation measures** (green, grey, soft, hybrid)

All **adaptation sectors** (e.g., agriculture to finance to transport), incl.
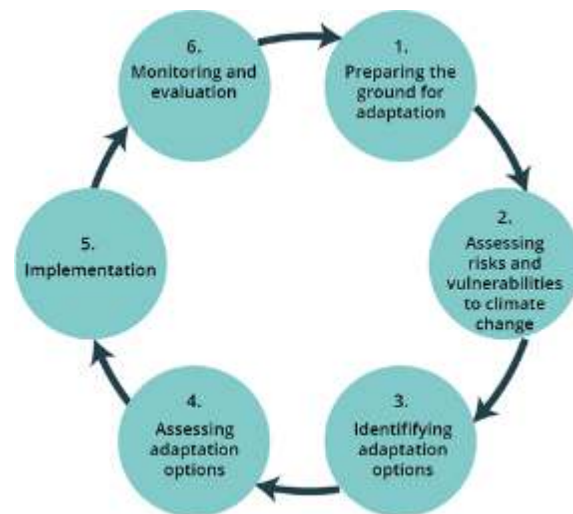
- **multi-** & **non-sectorial**
- strong focus on **cross-sector interfaces**
- special emphasis on items linking adaptation and **natural hazard management** / **disaster risk reduction**
- customized **search** for specific **cross-sector items** supported
- range of sectors and specific cross-sector issues **expandable** (on demand of EUSALP AGs and other user groups)

Weight of sectors [%] across all database items

- multi-/cross-/non-sectoral
- Natural hazard management
- Forestry
- Water Management
- Tourism
- Spatial planning
- Agriculture
- Other
- Energy
- Health
- Biodiversity
- Cities & urban planning
- Infrastructure
- Transport
- Construction & housing

13%
11%
8%
8%
7%
7%
7%
6%
6%
5%
4%
4%
3%
7%

More than one sector per item possible

WHAT

Platform contents: adaptation knowledge domains

Thematic clusters of know-how needed for all steps of the adaptation process cycle

- Future climate *(scenarios, projections)*
- Climate change impacts, vulnerabilities, risks
- Adaptation policies *(strategies, action plans, legislation, policy studies)*
- Adaptation options *(measures, recommended actions)*
- Tools *(manuals, guidance, methods, work aids)*
- Adaptation in practice *(implemented measures, case studies)*
- Monitoring & evaluation

Based on the Adaptation Support Tool, Climate-ADAPT (EEA)

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spatialservices

80 million people, 7 countries, 48
mountains and plains addressing
common challenges and oppo

WHAT

Selection of contents based on clear relevance criteria

Relevance and usefulness over completeness

- Relevance for target groups
- Content focus
- Geographical scope
- Transferability
- Language
- Up-to-dateness
- Accessibility
- Quality
- Understandability
- Transnationality
- Thematic scope

plus:
Clear guidelines for allocating items to knowledge domains

CAPA - Selection criteria for eligibility of items

General criteria (all knowledge domains)

Dimension	Criteria description	Relevance
Content focus	Items need to have a strong, clear and explicit focus on adaptation to climate change in the Alpine macro-region, including in particular on natural hazard management and disaster risk reduction in a climate change context.	Mandatory
Geographical scope	Items need to have a clear relation to Alpine territories and Alpine contexts, i.e. they must relate to geographical areas of the EUSALP macro-region, the transnational Alpine Space programme area, or the Alpine Convention area, or to countries that have a territorial share in the Alpine region	Mandatory
	Items without an explicit relation to Alpine countries or	

Target groups and user community

Knowledge relevant, usable and useful to core target groups

- Political decision makers, policy makers
- Public administration (at all levels)
- Municipality actors (mayors, council members, staff of local administrations, active individuals)
- Experts, professionals, practitioners
- EUSALP AGs and other transnational cooperation bodies and actors

All database items tagged and searchable by additional target groups

- Private sector (businesses, industry)
- Private sector (finance, banks, insurance companies)
- Private individuals, households
- Civil society (incl. NGOs)
- Scientific and research community
- Other

Contents, user interface and functionalities of CAPA tailored to needs of key user groups
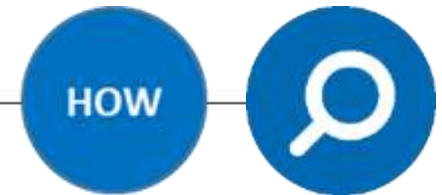
Inventory search

HOW

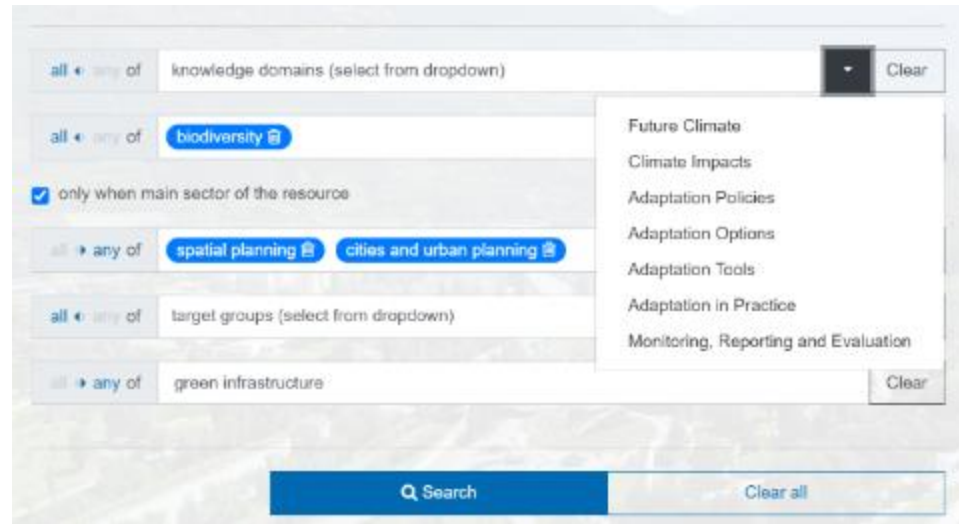# Two main entry paths for exploring the inventory

Thematic collections

www.capa-eusalp.eu

Inventory search

Pin-point access to expert-edited inventory per item

- Easy-to-use **search mask** with standardised search fields *(adaptation sectors, knowledge domains, target groups)*

- Convenient choice of **pre-defined search terms** from pull-downs

- Free text keyword search

- Changeable **operators** *(and/or)* for flexible combination of search terms

- Supports **individualised search behaviour**, targeted searches and accurate retrieval

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80 million people, 7 countries, 48 regions, mountains and plains addressing together common challenges and opportunities

European Commission

Interreg
Alpine Space
AlpGov

The project is co-financed by the European Regional Development Fund.

Thematic collections

Quick access to inventory items per topic

- Thematic **clusters of knowledge items** about cross-cutting issues of special interest
- **Pre-compiled** and hand-picked by experts
- E.g., sets of collections supporting EUSALP activities: *'risk governance'*, *'climate-resilient spatial development'*, *'hot topics'*
- **Expandable** and **open** to new topics
- *Do-it-yourself:* EUSALP AGs and other users can create their **own customized collections**

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Display of search results: tiered levels with progressing detail

(1a) List of records

(1b) Map visualizing geographic area covered by results

(3) Full metadata record

(2) Preview of single records (abstract, most important metadata)

(4) Direct access to original resource (download, external web link)

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Online editor for sharing your own resources

- **Register**, become an **editor**, enter **your own resources** and contribute to the knowledge directory

- **Online editing tool** with easy-to-use fill-in mask

- Step-by-step **online guidance**, selection criteria and tooltips

- All records submitted for publishing are **quality-checked**

- Additional individualised functionalities available for registered users:
    - personal workspace in log-in area
    - earmarking and working with your favourite items
    - Shopping cart-like functionalities for compiling, saving, editing and publishing your own customized collections

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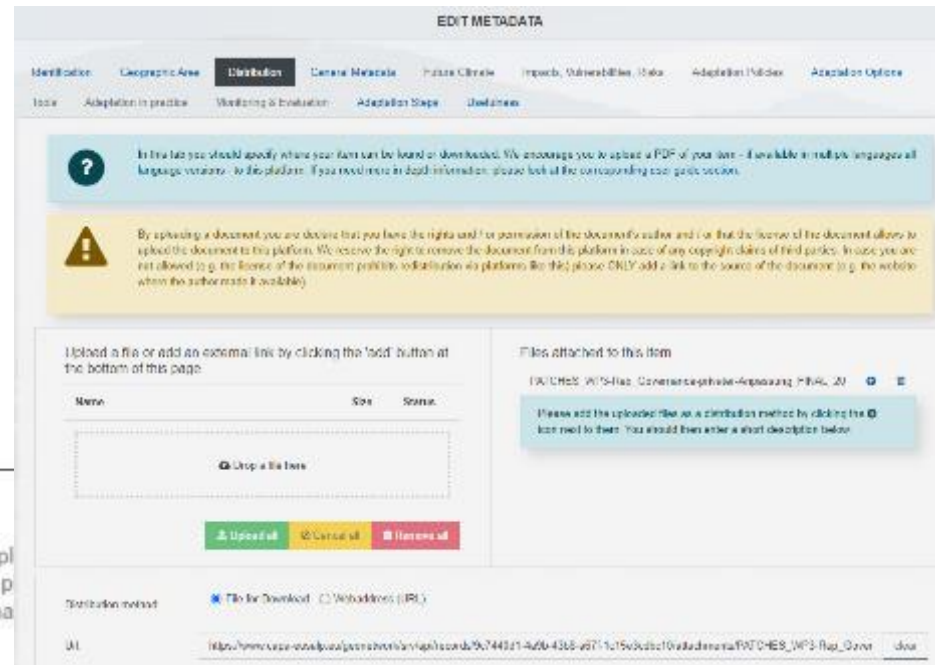
Added value of CAPA for EUSALP

- CAPA has been relaunched, advanced and further deployed as part of the **EUSALP AG8 work plan**

- Ongoing integration of **cross-cutting knowledge** linking **natural hazard management** with **climate adaptation** to strengthen synergies

- **Embedding CAPA** in broader **EUSALP architecture** and its **cross-sector initiatives**
  - provides a cross-sectoral knowledge brokerage tool for other AGs
  - keeps work products alive, disseminates them and increases their transnational impacts
  - allows entire Alpine community to benefit from transnational knowledge sharing
  - supports mainstreaming of climate adaptation into sector policies and strengthens their climate resilience

HOW **By using CAPA, adding to its contents, publishing new collections**

	www.capa-eusalp.eu	
Platform management, contents	Environment Agency Austria Expert Team Climate Change Wolfgang Lexer www.umweltbundesamt.at	**capa-admin@spatial-services.com**
Website, technical maintenance	Spatial Services GmbH Steffen Reichel www.spatial-services.com	
(Co)Funding	Federal Ministry of Agriculture, Regions and Tourism (BMLRT) Co-Leader of EUSALP Action Group 8 www.bmlrt.gv.at	abt-34@bmlrt.gv.at
	INTERREG Alpine Space Programme www.alpine-space.eu	js@alpine-space.eu
CAPA user community CAPA external editors	**YOU**	

CAPA – Climate Adaptation Platform for the Alps

CAPA is the transnational knowledge portal for climate adaptation in the Alpine macro-region. The expert-based directory provides convenient and pinpoint access to quality-checked knowledge resources that cover all Alpine territories, are comprehensive in scope and support decision makers in adapting to climate change. To optimize benefits from transnational knowledge sharing, users can become active contributors and share their own knowledge products.

More…

Usable knowledge for informed adaptation action

You are concerned with adaptation to climate change in policy-making, public administration, professional work or municipal affairs and looking for information that is quality-assured, usable, and helps you in planning and implementing adaptation? You would like to benefit from knowledge and experiences of other Alpine countries that are affected by climate change in similar ways? But you feel overloaded by the mass of information flooding the world wide web and could use guided and focused access to contents that are relevant, pre-selected and edited by experts? Then you should turn to the transnational knowledge portal **CAPA – Climate Adaptation Platform for the Alps**.

Comprehensive coverage, Alpine relevance

CAPA is the central web-based gateway and a knowledge management infrastructure for climate adaptation information in the Alpine countries. Contents are comprehensive in thematic scope and have a broad coverage:

- **Knowledge domains** needed for all steps of a complete adaptation process:
    - Future climate (climate change scenarios, projections, assessments)
    - Climate change impacts, vulnerabilities, risks
    - Adaptation policies (strategies, action plans, legislation, policy studies)
    - Adaptation options (possible measures, actions, interventions, solutions)
    - Tools (manuals, guidance, methods, work aids, web portals)
    - Adaptation in practice (realized measures, implementation activities, practice examples, case studies)
    - Monitoring & evaluation (methods, procedures, progress reports)
- **Adaptation sectors**: All sectors relevant to adaptation, from agriculture to water management, from biodiversity to spatial planning. .Strong emphasis is on multi- and cross-sectoral items and resources linking climate adaptation and natural hazard management / disaster risk reduction.
- **Multiple scales**: from local to transnational level.
- **Diverse types of knowledge products**: Reports, studies, guidance, tools, policy documents, web portals, practice examples, map-based resources, etc.
- **Special emphasis** on mountain topics, transboundary issues, and transferable adaptation solutions.
- **Multi-linguality**:limmediate access to original items in English and all national Alpine languages (GE, FR, IT, Sl).

All contents are clearly organized, easily searchable and accurately retrievable. The user interface and platform functionalities are tailored to the needs of key target groups of adaptation knowledge: public administration at all levels, municipality actors, and the expert and consultancy community.

Added user values

The platform provides two main entry paths: users can **browse the inventory** with dedicated search tools that support individualized search behavior, or pick from **pre-compiled collections** for quick and focused entry to specific topics. Examples of such thematic collections include bundles of knowledge items about risk governance, climate-resilient spatial planning, or emerging 'hot topics'. To satisfy cross-cutting knowledge needs, the portfolio of collections can be expanded on demand of platform users, e.g. of EUSALP Action Groups.

Search results can be displayed in varying and progressing level of detail, ranging from lists of record titles to abridged view of single records up to full metadata records. Direct access to the original resource is possible from each results view. An accessory map view shows the geographical area covered by the items found by a search. This allows users gaining a swift overview of the spectrum of available resources to quickly identify the most interesting items, which can then be explored more closely.

Become a contributor and benefit from enhanced transnational knowledge sharing

Maintenance of the portal benefits from user-driven content enhancement. An easy-to-use online editing tool allows registered users to enter their own resources into the database and share them with the Alpine community. This allows all users to disseminate and give visibility to their own knowledge products, and in turn to benefit from enhanced transnational knowledge sharing. All records submitted for publication are quality-checked by experts. Registered users have access to a range of powerful personalized functionalities and services in their own workspace. For example, they can compile their own thematic collections and submit them for publication.

Mainstreaming climate adaptation within EUSALP

CAPA is part of the work program of EUSALP AG8 on natural hazard risk management and climate adaptation. If offers a cross-sectoral knowledge brokerage tool to all EUSALP Action Groups, therewith supporting the mainstreaming of adaptation into EUSALP sector policies.

CAPA is managed by the Environment Agency Austria, hosted and maintained by Spatial Services GmbH, and co-funded by the INTERREG Alpine Space Programme and the Federal Ministry of Agriculture, Regions and Tourism of Austria (BMLRT).

Links

CAPA – Climate Adaptation Platform for the Alps

EUSALP AG8

Downloads

CAPA flyer (pdf)

Presentation: Brief introduction to CAPA (ppt)

CAPA offline description: introduction, overview and USPs (doc)

EUSALP EU STRATEGY FOR THE ALPINE REGION

CAPA – Climate Adaptation Platform for the Alps

CAPA is the transnational gateway for climate adaptation knowledge in the Alpine macro-region. As an expert-based directory, it provides convenient access to quality-checked knowledge resources that cover all Alpine territories, are comprehensive in scope, and relevant to decision-making. CAPA allows adaptation actors in all Alpine countries to benefit from transnational knowledge sharing.

Users can browse the inventory with dedicated search tools, or pick from pre-compiled collections for quick and focused entry to specific topics. By registering, users can become active contributors: an easy-to-use online editor allows you to share your own resources with the Alpine community.

Visit CAPA to get started!   **www.capa-eusalp.eu**
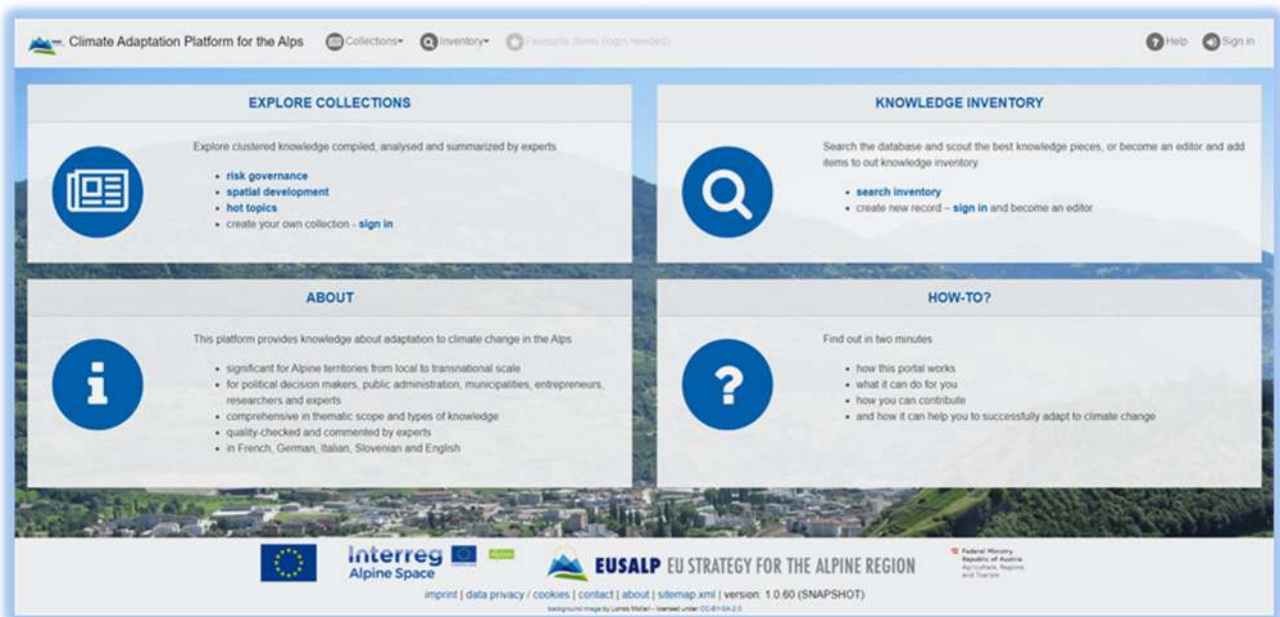
Platform contents

- Significance for Alpine territories from local to transnational scale
- Selected, edited, quality-assured by experts
- Comprehensive in scope: all sectors, climate impacts, types of adaptation options
- Diverse types of knowledge products from diverse sources
- Emphasis on mountain issues, linkages to disaster risk reduction, cross-sector and transboundary issues

Knowledge domains needed for all steps of the adaptation process

- Future climate (scenarios, projections)
- Impacts, vulnerabilities, risks
- Adaptation policies (strategies, action plans)
- Adaptation options
- Tools (guidance, methods, work aids)
- Adaptation in practice
- Monitoring & evaluation

Inventory search

- Pinpoint access to expert-edited directory per item
- Easy-to-use search mask with classified search criteria and free text keywords
- Flexible combination of search terms supports customized search runs
- Direct access to original resources in English and all Alpine languages (GE, FR, IT, SI)

Thematic collections

- Pre-compiled collections for quick access to inventory items by theme
- Bundles of knowledge items addressing specific topics and knowledge needs
- Topics supporting EUSALP processes, e.g. risk governance, spatial development, 'hot topics'
- Expandable and open to new customized collections on demand of users and EUSALP AGs

80 million people, 7 countries, 48 regions, mountains and plains addressing together common challenges and opportunities

Interreg Alpine Space AlpGov

WHY

Added user values
- Inventory clearly organized, all items accurately searchable and retrievable
- Knowhow and solutions that are transferable, replicable or customizable
- User interface and functionalities tailored to needs of target groups
- Registered users have personal work space and additional functionalities for assembling their own knowledge base
- Online guide for platform users

User-friendly presentation of search results
- Multilevel display of results with progressing level of detail: from list of records to abridged view of single record to expanded metadata record
- For swift overview of available resources, quick identification of interesting items, and closer exploration
- Direct retrieval of original resource (download, web link) from each results view possible
- Map-based visualization of results highlighting the geographic areas covered by item

FOR WHOM

Knowledge relevant, usable and useful for core target groups
- Political decision makers and policy makers
- Public administration
- Municipality actors (mayors, council members, staff members of local administrations, active individuals)
- Experts, professionals, researchers
- Transnational cooperation bodies and actors

Cross-sectoral knowledge brokerage for EUSALP
- CAPA is further deployed under the umbrella of EUSALP AG8 and supports its objectives
- Integration of natural hazard risk management to strengthen synergies with adaptation
- Mainstreaming climate adaptation knowledge into sector policies by embedding CAPA in EUSALP-wide cross-sector initiatives
- Enhancing adaptive capacities of EUSALP AGs
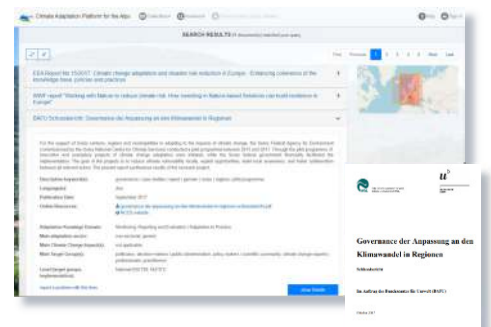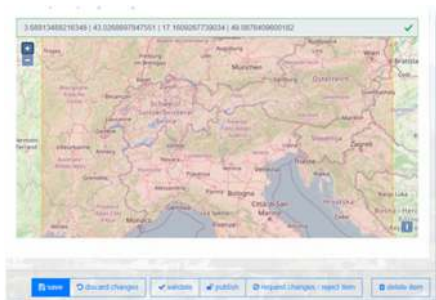
Become an editor and share your own resources!
- Register as editor, enter your own resources and submit them for publication
- Online editing tool with easy-to-use fill-in mask for convenient data entry
- Assisted by step-by-step online guidance, selection criteria and tooltips
- All submitted records quality-checked by experts
- Use additional personalised functionalities in your login area

www.capa.eusalp.eu

WHO

Platform management, contents	Environment Agency Austria Expert Team Climate Change Adaptation	capa-admin@spatial-services.com
Website, technical maintenance	Spatial Service GmbH	
Funded by	INTERREG Alpine Space Programme	www.alpine-space.eu
	Federal Ministry of Agriculture, Regions and Tourism (BMLRT)	www.bmlrt.gv.at

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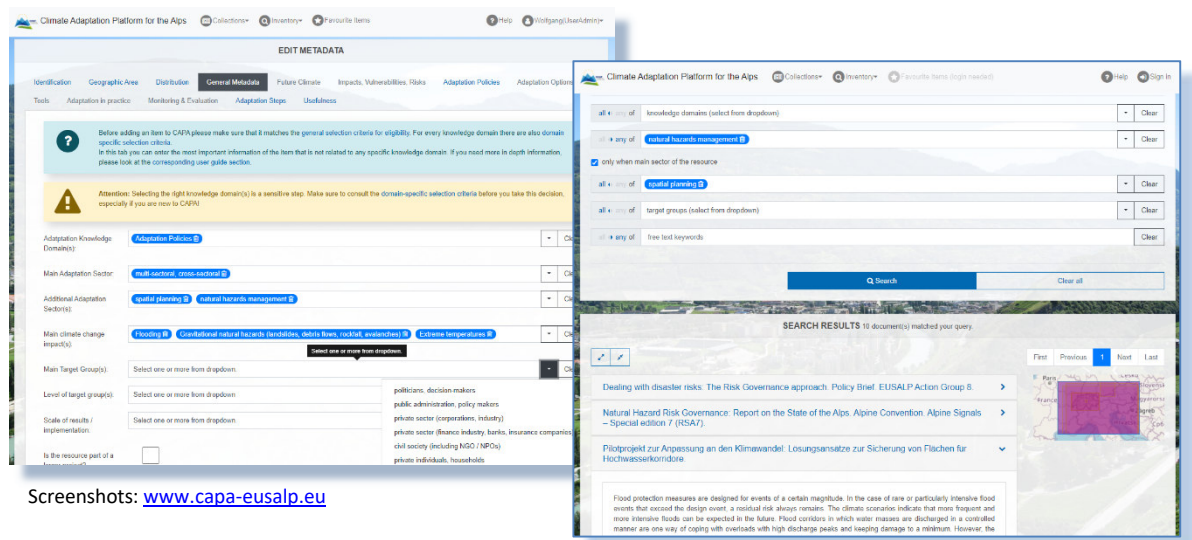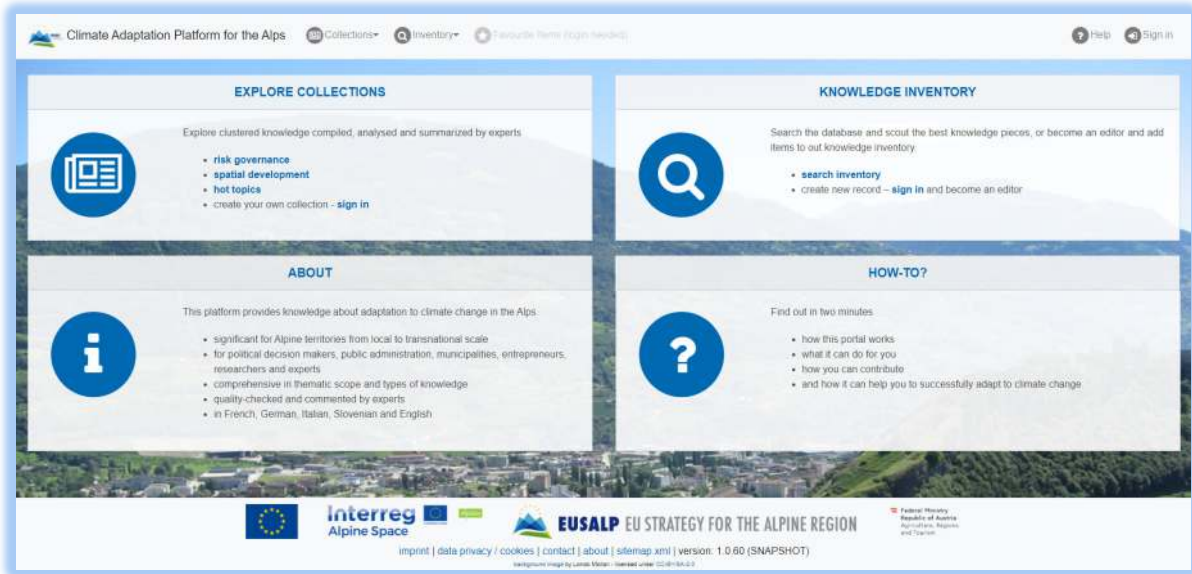
Screenshots: www.capa-eusalp.eu

CAPA -
THE CLIMATE ADAPTATION PLATFORM FOR THE ALPS
www.capa-eusalp.eu

Introduction, overview and USPs

Wolfgang Lexer, Environment Agency Austria

This project is co-financed by the European Regional Development Fund through the Interreg Alpine Space Program.

CAPA in a nutshell – *For the hurried reader*

The **Climate Adaptation Platform for the Alps (CAPA) (www.capa-eusalp.eu)** is the only transnational climate adaptation knowledge portal for the Alpine macro-region. It covers all Alpine territories and focuses on the specific knowledge needs of Alpine adaptation actors from transnational to local scale. Initially developed by the C3-Alps project, CAPA has been re-launched, advanced, further populated with contents and fully deployed under the umbrella of EUSALP AG8 in the frame of the AlpGovI and AlpGovII projects. Crucial steps have been taken to establish CAPA as the central web-based gateway for climate adaptation information and services in the Alpine countries. It is both the central transnational online directory of resources about climate change adaptation in the Alps and a complete knowledge management infrastructure that intends to bridge the gap between the generation and the actual use of adaptation knowledge.

Selection, organization and presentation of contents, platform functionalities and the user interface have been tailored to the needs of key target groups of adaptation knowledge: policy makers, public administration at all levels, municipality actors, and the expert and consultancy community. All knowledge resources (studies, reports, tools, web-based resources etc.) are selected, edited and quality-checked by experts based on traceable relevance and usefulness criteria. Contents are comprehensive in thematic scope, clearly organized, and easily retrievable. The items in the database cover all sectors relevant to adaptation, all climate change impacts, adaptation measures of various types (green, grey, soft, hybrid), and all fields of knowledge (from climate scenarios to adaptation policies, from adaptation in practice to monitoring & evaluation) needed in the various stages of the adaptation policy cycle. A strong focus is put on cross-cutting adaptation issues, in particular on knowledge resources linking climate adaptation with natural hazard management and disaster risk reduction. All knowledge items are intensively tagged with metadata to allow categorization and pinpoint search. The inventory stores and gives immediate access to original items in English and all national Alpine languages (GE, FR, IT, Sl). Search results can be viewed and downloaded in varying and progressing detail, ranging from simple record lists to full metadata records. An accessory map view shows the geographical area covered by the items found by a search.

The platform provides two main entry paths:

i) The inventory search gives pinpoint access to an expert-edited directory on a per-item basis, based on form-based search, classified search criteria and supporting customized searches.

ii) Pre-compiled thematic collections of items give access by specific adaptation themes (e.g., risk governance, spatial development, 'hot topics') responding to specific cross-cutting knowledge needs, including by EUSALP Action Groups. Users and other interested parties can create and publish their own customized collections.

Maintenance of the portal builds on user-driven content enhancement. A user-friendly online editor allows registered users to enter their own resources into the database and share them with the Alpine community. Registered users can also save and manage their favorite search runs and results sets, compile and edit their own thematic collections, and submit them for publication. The platform is flexible, extendable and further customizable. Full compliance with the DATAP regime as well as OGC, ISO and INSPIRE standards warrants interoperability with other web portals.

CAPA is part of the work program of EUSALP AG8 on natural hazard risk management and climate adaptation. Embedding CAPA as a cross-sectoral knowledge management tool into the broader EUSALP process aims at supporting mainstreaming of adaptation into the sector policies related to EUSALP Action Groups, thus leveraging climate resilience and enhancing coherence.

WHAT? – Content features

Relevance to climate adaptation: All platform resources have a strong, clear and explicit focus on adaptation to climate change in the Alpine macro-region. This includes knowledge items about all sectors in a climate change and adaptation context. Selection of items follows the rule "relevance over completeness". A set of clearly defined relevance criteria, with quality, up-to-dateness and usability/usefulness for target groups being overriding principles, guides what items are eligible to the database.

Alpine focus and transnational scope: All knowledge resources relate to Alpine territories and Alpine contexts. The geographical scope covers the EUSALP macro-region, the transnational cooperation area of the Alpine Space Programme, the Alpine Convention area, and countries that have a territorial share in the Alpine region. Items that have been produced in a transnational Alpine context, cover territories of more than one Alpine country or address cross-border issues are given priority. This includes in particular knowledge about adaptation issues that are specific to mountain areas, including their related bio-geophysical and socio-economic specificities (e.g. natural hazards, winter tourism). Knowledge that has been produced in other contexts outside the Alpine region, e.g. with a European scope, may be considered if at least parts of their contents are applicable and directly relevant for adaptation in the Alps.

Types of knowledge items: The items in the CAPA database cover various types of knowledge products, ranging from reports and studies to manuals and guidelines, from policy documents to cartographic resources, from practice examples to internet-based resources. All items are required to be finalized, published and accessible (preferably online).

Broad scope across sectors: The portal gives access to knowledge products for, and about, a broad spectrum of administrative and socio-economic sectors, including policy fields such as agriculture, biodiversity and ecosystem services, tourism, urban planning, energy, health, soil etc. It puts strong emphasis on items cutting across two or several sectors as well as on synergies with climate change mitigation and supports non-sectoral and multi-sectoral contents. All items are searchable by sectors or specific combinations of sectors. CAPA gives particular attention to resources linking adaptation with disaster risk reduction, natural hazard management and risk governance, i.e. the policy fields that are the core interest of EUSALP AG8. CAPA is, however, open and well prepared to put additional emphasis on further cross-sector interfaces with other policy fields, such as spatial planning, water management or green infrastructure, and including the topics of other EUSALP Action Groups.

Complete coverage of adaptation knowledge domains: The knowledge domains cluster specific fields of know-how. They correspond to main stages in the adaptation policy cycle, cut across the various adaptation sectors, and altogether support a complete (and iterative) adaptation process. CAPA distinguishes the following knowledge domains: i) Future climate (scenarios, projections); ii) Climate change impacts, vulnerabilities and risks; iii) Adaptation policies (adaptation strategies and action plans, sectorial adaptation policy documents, legislation, meta-analytical studies, policy reviews); iv) Adaptation options (measures, actions, recommendations for action); v) Tools (manuals, guidelines, decision support, work aids, web portals, methods); vi) Adaptation in practice (practice examples of implemented adaptation measures, case studies); vii) Monitoring & evaluation (of adaptation policies). Domains are an important attribute used to structure the knowledge space and to organize the knowledge inventory. All database items are searchable by domains, thus allowing users to search in a targeted way for resources needed to support their knowledge needs in distinct phases of the adaptation process.

Coverage of multiple scales: The items in CAPA are significant to Alpine territories from transnational scale down to the municipality level and support multilevel governance of adaptation. The inventory

puts particular emphasis on spatially explicit knowledge about Alpine regions and municipalities, including practice examples, pilot measures, and case studies, thus facilitating searches for information about, e.g., home territories of users. It also hosts items produced within international or EU-wide contexts, if they are relevant and applicable to Alpine territories. With regard to scales and depth of spatial resolution, CAPA thus fills a hitherto vacant niche between adaptation platforms on EU and national levels.

Multi-linguality, language awareness: The inventory stores and gives direct access to original resources in native Alpine languages (German, French, Italian, Slovenian) and English, while the metadata language itself is in English. Language awareness is a benefit compared to EU-wide portals (Climate-Adapt: English only) and national platforms (national languages only).

Diversity of sources and contexts: The inventory contains relevant products from a variety of sources, including knowledge generation contexts such as Interreg programs, other EU funding schemes, national research and pilot programs, or (sub-)national contract research.

FOR WHOM? – Core target groups

Usability and usefulness for target groups: Usability of knowledge items for adaptation actors from various sectors and in various stages of the adaptation cycle is an overriding selection criterion. The contents as well as the user interface and its functionalities are tailored to meet the demands of a variety of user groups. Core user groups that are crucial to decision-making on climate adaptation in Alpine countries, regions and municipalities as well as at transnational level include in particular:

 i) political decision makers and policy makers;
 ii) public administration;
 iii) municipal actors (mayors, council members, staff members of local administrations);
 iv) experts, professionals, researchers.

Having in particular the needs of EUSALP actors in mind, CAPA considers closely the interests of EUSALP Action Groups and their thematic fields of work, along with those of other transnational entities in the Alpine region (Alpine Convention, NGOs, etc.). All items are tagged and searchable according to main target groups, including additional audiences such as the private sector and civil society.

HOW? – Key functionalities for platform users

Inventory search: The inventory search gives pinpoint access to an expert-edited directory on a per-item basis, based on classified search criteria (such as adaptation sectors, knowledge domains, target groups) and free text keywords. An easy-to-use search mask allows users to pick pre-defined search terms from drop-down lists. The user interface and search functionalities support customized searches and individualized search behavior. For a focused search, several search terms can be combined in a flexible way by choosing the most suitable operator, i.e. whether any or all of the terms have to match an item.

Thematic collections: Pre-compiled collections give access to inventory items by theme. Collections are thematic bundles of knowledge items (e.g., studies, reports, tools, guidelines, information portals) that address specific adaptation topics and respond to particular knowledge needs. All collections have been compiled and further hand-picked by experts. Thematic collections offer a convenient entry path to the inventory and give quick access to resources of special interest to users. CAPA is open for compiling and publishing thematic collections dedicated to topics of special interest to platform users, for instance those of EUSALP Action Groups. New customized collections can be created on user demand by the platform management or by registered users with editor rights in do-

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it-yourself mode. In response to needs by EUSALP AG8, the portal currently offers a set of demo collections for the topics 'risk governance' and 'spatial development' as well as for cross-cutting 'hot topics'. This entry path to the portal offers excellent opportunities to highlight adaptation topics addressed by EUSALP Action Groups and supporting EUSALP processes.

Multi-level results display: Search results can be displayed in varying and progressing levels of detail, ranging from i) simple record lists to ii) condensed in-line view of single records with abstract and key attributes up to iii) expanded view with full metadata records. This allows users gaining a swift overview of the spectrum of available resources and facilitates quick identification of the most interesting items, which can then be explored more closely by examining their more comprehensive metadata information.

Direct access to original resources: Immediate retrieval of the original resource (either pdf-file directly stored in the CAPA database or web link to external resource) is possible from each results view. In addition, points of contact are provided for all items to facilitate personal inquiries.

Map-based visualization of results: An accessory web map visualizes the geographic area covered by all result items of a search; the spatial extent of specific items selected in the result list is highlighted in the map.

HOW TO CONTRIBUTE? – Become an editor and share your own resources

By registering to CAPA, each user can become an editor of new items and contribute to update and extension of the knowledge base. This allows users to share and give visibility to their own resources and to benefit from those of others. In addition, registered users have access to a range of powerful personalised functionalities and services.

Online editor for user-driven content maintenance: In cooperation with EUSALP AG8, an online metadata editor has been developed and implemented. Users have to be registered to access the editor. The registration procedure fully respects all obligations under the EU DATAP regime. User-driven content enhancement is a key strategy for maintaining and extending the portal contents in a self-sustaining way. Insertion of new items is done via a structured, easy-to-use online fill-in template, which works intuitively and is supported by mouse-over tooltips, step-by-step guidance in the background, and relevance criteria for selection of items. All new items submitted for publication undergo a quality control by the platform management, which may implement minor revisions on its own, request more substantial revisions of records to the editors, or – if relevance criteria are not met – reject publication.

Additional personalized functionalities: In their log-in area, registered users have personal work space available where they have the opportunity to build their own customized knowledge base (available at each log-in), create new thematic collections and submit them for publication.

WHY? – Added value

Added value of an Alpine climate adaptation portal

Overcoming lacks of know-how and building implementation capacities: A robust and sound knowledge base is the key prerequisite for informed policy-making, decision-making and for taking action on adaptation. In particular, the success of adaptation policies depends on the implementation capacities of the target actors on all levels. Data, information and knowledge about climate change and adaptation in Alpine countries are available to a substantial extent, and new information continues to be generated at growing rates. However, awareness, policy uptake, actual use, and long-term impacts of the knowledge produced are still limited, in particular on regional and local levels. Main reasons include: i) an information overload of decision makers due to the

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overwhelming and growing amount, variety, and unmanageability of knowledge about climate adaptation, on the one hand, and ii) major limitations regarding accessibility, usability, practice-relevance, and transfer of adaptation information generated vis-a-vis the real-world needs of decision makers and stakeholders, on the other hand. As a result, capacities, know-how and skills for implementing adaptation strategies are still widely lacking, especially on more local levels, which acts as a major barrier to progress in adaptation on the ground. CAPA contributes to bridging that gap between the generation and use of adaptation knowledge by providing and keeping alive over the long-term information that is expert-edited and up-to-date, matches the needs of decision makers in Alpine territories, is relevant, usable and useful to them, and made accessible in user-friendly ways. The portal is a facility for capacity-building and knowledge transfer that supports implementation of adaptation strategies and the governance of adaptation in Alpine countries.

Synergies and benefits through transnational knowledge sharing: Transnational information-sharing and knowledge exchange is at the very heart of a transnational cooperation region like the Alpine macro-region. CAPA is a tool to accomplish this in the field of climate adaptation. It allows policy-makers, decision-makers and stakeholders concerned with climate adaptation in each of the Alpine countries to benefit from the most useful information and knowledge pieces produced in all other countries, including from beyond the Alpine region. In turn, CAPA allows each country and their EUSALP members to share and spread their studies, reports and project results to the entire Alpine adaptation community. This can also help to avoid duplication of research and to identify gaps in the overall Alpine knowledge base, thus increasing cost-effectiveness of public research funding in each country.

Filling a crucial gap in knowledge provision for adaptation: In the existing landscape of web portals about climate adaptation, ranging from the EU adaptation platform CLIMATE-ADAPT to national adaptation platforms (in countries where such are available), CAPA closes a significant gap and offers substantial added value. CAPA is the only transnational adaptation platform for the Alpine macro-region, and it covers resources significant specifically to Alpine territories and actors. In contrast, CLIMATE-ADAPT focuses on items of pan-European relevance and in English language, and available national platforms are usually restricted to items produced within a national context and in domestic languages only. Moreover, mountain regions are not a particular strength of existing portals.

Synergies with other adaptation portals: Cooperation, cross-linking and content exchange with national or sectoral portals and the EEA CLIMATE-ADAPT portal is possible and can be implemented, if desired. CAPA covers adaptation portals existing at other levels and web-based resources in general as distinct items in the knowledge inventory. It thus acts as a kind of meta-directory for the landscape of existing adaptation portals and online services, indicating also their potential relevance for Alpine adaptation issues. Moreover, CAPA can serve as knowledge hub for those countries that do not have a central national adaptation portal in place.

Coverage of transboundary adaptation issues: While special attention to cross-border issues is generally important in a transnational cooperation region, it is necessary especially in the context of climate change, because many climate impacts have border-crossing dimensions and many adaptation responses require cross-country coordination (e.g. border-crossing river basin management).

Transferability, replicability: CAPA gives priority to adaptation solutions that are at least to some extent transferable among Alpine regions, allow customizing with moderate effort or are sensitive to different environmental and political-administrative settings. That is also why items without an explicit relation to Alpine territories, or produced in a context outside of the Alpine area, are eligible if their contents are considered at least partly valid, applicable, replicable and thus relevant to the Alpine region.

Persistence: CAPA keeps information alive even if original resources go offline.

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Added value for users

Quality-assured contents: All items in CAPA are selected, edited and quality-checked by experts of the platform management. For items and records submitted for publication by external editors, a quality assurance procedure reviewing relevance, completeness and validity is in place, as well.

User-friendliness and user support: The portal uses up-to-date technology, user interface design, info texts, and tutorials to ensure quick and comfortable access to the knowledge base. Both the public user surface and the online editor for external content contributors allow convenient selection of pre-defined search terms and metadata attributes from pull-downs. A comprehensive online guide is available for regular platform users, and external editors are supported by step-by-step online guidance, relevance criteria for selection and allocation of items, and mouse-over tooltips.

Understandability: CAPA gives priority to items that are easily understandable for a non-scientific audience and not too technical. Scientific (journal) publications are not at the focus of CAPA, but are eligible in special cases.

Contributing actively to the knowledge base: By registering on CAPA, each platform user can become an external editor and share his/her own resources with the Alpine adaptation community. For knowledge producers, institutional EUSALP members as well as for the research and expert community, this offers the great opportunity to keep alive, disseminate, and transfer resources produced within their own sphere of influence to target groups in other regions and countries, thus pushing visibility of products, multiplying the impact of the information produced, and benefitting themselves from transnational knowledge-sharing.

Personalized work space: Registered users have their own personal work space available and additional powerful functionalities at their disposal (no costs), allowing them:

- to select, save, manage and work with their own favorite items;
- to create their own customized collections of items. Shopping cart-like functionalities allow saving and editing ones' own search queries and (dynamic) search runs as well as compiling, saving, editing and commenting one's own hand-picked (static) collections of items;
- to share their own collections with the user community by submitting them for publication.

HOW COME? – CAPA in the EUSALP process

CAPA is an integral part of the work program of EUSALP Action Group 8, whose mission is to improve risk management and to better manage climate change, including major natural risks prevention. Initially developed by the Alpine Space project C3-Alps, CAPA has been relaunched, advanced and further populated with contents under the umbrella of EUSALP AG8. Corresponding with the objectives of AG8, the thematic scope of CAPA has been expanded by strengthening integration of cross-cutting knowledge linking climate adaptation and natural hazard management, including the work results of AG8 on various 'risk governance' issues.

Under the current AG8 work plan, it is a major goal to mainstream climate adaptation knowledge within EUSALP by embedding CAPA into the broader EUSALP architecture. The underlying rationale is that adaptation to climate change is a pre-eminently cross-cutting policy field that affects all sectors related to the Action Groups of EUSALP and requires horizontal integration. CAPA shall therefore be capitalized on as a cross-sectoral knowledge brokerage tool across Action Groups by aligning with 'strategic priority policy areas' and connected 'strategic cross-sectoral implementation initiatives' established by EUSALP. The aims are twofold: On the one hand, integrating climate adaptation as a policy and knowledge field into the sector policies and themes of Action Groups shall strengthen policy coherence, coordination and capacity-building and ensure that sector policies are climate-

resilient. On the other hand, CAPA will benefit from incorporating sector-related knowledge and experiences about climate change that have been built by other AGs.

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YOU

CAPA user community   **CAPA external editors**