

Key recommendations for climate service providers

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There is high demand for reliable climate information. But which aspects are most crucial for the development of useful and usable climate services, i.e. provision of products and services besides pure data? Which implications can be derived for the next generation of Austrian climate scenarios?

The project Use.AT set out to find answers to these questions. The results should inform the development of the next Austrian climate scenarios via the initiative Klimaszenarien.AT. To find those answers, the project team examined the following perspectives:

- **Provider perspective:** Look to other countries with long-standing experiences in providing and evaluating climate services like UK, CH, DE and NL and Austria
- **User perspective:** Who are the users of the Austrian climate scenarios ÖKS15? Who could and should use them in the future? What are the users' needs, requirements, and challenges? And which role does ÖKS15 play in climate-sensitive decision making?
- **Climate communication:** Which aspects of effective climate communication and climate service provision can be found in the literature? How do existing products compare considering those criteria? Are they of different relevance for different user groups?

Using a mixed-method approach – literature research, surveys, interviews and focus groups – many new insights were discovered. A general project description, work package reports and executive summaries are available on the project homepage (<https://klimaszenarien.at/projekte/climate-services/>) for more detailed background information. Here the project team compiled **key recommendations** for providers and developers of useful and usable climate services.

Concerning users

Key recommendation 1

Climate services fulfil the purpose they are given, ideally bridging the usability gap (what providers offer vs. what users need).

- We recommend **identifying relevant user groups early**. This includes their requirements, needs and challenges in terms of climate information. Note that user groups can be defined along many different characteristics. In Use.AT we used occupational group, application purpose and previous knowledge with climate information. It is essential to identify relevant grouping characteristics in line with what you can deliver as a provider.
- We developed a well-grounded criteria catalogue for assessing the usability and usefulness of climate services. We recommend asking the user groups for their **preferences regarding important aspects of effective communication**, which are reflected in eight groups of criteria. Use this information to tailor the design of your climate services and allocate resources effectively.

Key recommendation 2

Climate services are adopted to the extent of the expectations they fulfil.

- We recommend **early collaboration with the users**. This helps you to co-create climate services that meet the needs and requirements of users, therefore increasing the chance that they are used in practice. The co-creation process itself is as important as its outcome and has significant impact on the way the climate service is perceived and adopted.
- The process should be on equal footing with the users, transparent, and flexible, allowing for **re-assessing and re-defining its strategic goals** from both sides.
- We recommend being open about the **legal and organisational frameworks and scopes for action** of both users and providers. This avoids misunderstandings and helps the climate service meet expectations in practice.

Key recommendation 3

Some issues are relevant for all users, independent of user groups.

- Users want new services to be integrated with **existing platforms** they use and are used to.
- Data and services should adhere to the **current scientific state-of-the-art**, so that decisions are based on the best available information.
- Trust is very important for the users. They ask themselves whether the **data and organisations behind it are trustworthy** so that their statements and decisions are also perceived as trustworthy.
- Climate services should be developed in a way that they are **understandable and accessible** for the user.

Concerning providers

Key recommendation 4

Climate services will be used in a political context. A question of strategic positioning.

- User often want clear recommendations for actions as basis for (political) decision making. Think about your **political aims and positions**, and whether you want to act pro-actively or passively in that regard.
- Early integration of users significantly impacts how those services are perceived. It also opens the door for **targeting specific decision-making processes**. Make transparent where the climate service is robust and where are the limitations for decision support.
- Supporting specific decisions requires expertise to interpret and translate the climate information. This leads to **questions of competences and responsibilities**, for example who is qualified and authorised to derive politically relevant recommendations from climate services.

Key recommendation 5

There should be a clear legal mandate and commissioning for the development of national climate scenarios. It should define the scope and quality of their provision.

- This would help providers to develop and implement **officially recognised national climate reference information**.
- A legal mandate clarifies several aspects required to **harmonise expectations of providers and users**. On the other hand, the lack of a mandate entails a clear management of expectations and responsibilities. This includes bridging the last mile from data to services, capacity building and support for further interpretation, and the separation of sovereign activities from business cases.
- **Quality assurance** is needed for related services and activities.
- A legal mandate and commissioning should **specify target groups** for official national climate scenarios. Use.AT provides results that help tailor the products and services for those groups and evaluate their use.

The results and insights of Use.AT flow into the development of the next Austrian climate scenarios and can support climate service providers internationally. The goal is to make climate services more user friendly and needs-oriented and therefore increase their use in climate-sensitive decision making.