

# Use.AT

## Report WP2 „Make use of learnings from climate services in selected countries and AT“

### Executive Summary english

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## Executive Summary WP2

There is a great need for reliable climate information. But what is important in the development of climate services, i.e. services and products that go beyond the mere provision of data? The Use.AT project has set itself the goal of finding this out. This knowledge is to be incorporated into the development of the future climate scenarios for Austria “ÖKS26” as part of the „Klimaszenarien.AT“ initiative. Experiences from Austria with services based on the ÖKS15 climate scenario data will be collected and evaluated, as will international expertise.

This report primarily deals with solutions for climate services from the **perspective of service providers**. This perspective is based on general observations from the **literature, interviews with experts** and a **mapping of the current “market”** - largely international services. The timing for this evaluation is favorable as many weather services and consortia in Europe are currently working on an update of their national climate scenarios.

*„Climate services promise better decisions but mainly focus on better data.“ (Findlater et al., 2021)*

„Climate services promise better decisions but mainly focus on better data.“ This “diagnosis” from Findlater et al. 2021 gets to the heart of the problem with many existing services. A large number of climate datasets exist and

new, better datasets are constantly being added. However, this makes the situation more confusing for users. It is not clear how decisions should be made on the basis of the data, for example with regard to climate change adaptation measures.

Discussions with climate service providers have shown that awareness of the “usability gap” (Skelton et al. 2017), i.e. the gap between what is available and the actual usability, has increased in recent years. Great efforts are now

*The awareness of the „usability gap“ by climate service providers has increased in recent years.*

being made to translate climate datasets into user-oriented products. Increasingly, for example, users on climate service portals are being directed specifically to the pages that are relevant to them. These are designed according to different levels of complexity, depending on whether they are looking for fully evaluated climate information to provide a quick overview and as a basis for decision-making (the vast majority according to Skelton et al., 2019), or whether technically trained interested parties want to work out partial aspects from data sets.

Use.AT is therefore looking for and documenting climate services that involve user groups and their requirements in the development process and implement the entire process chain in the context of “climate scenarios”, from climate datasets to derived data products and

information processing. Co-production, i.e. the development of services together with representatives of relevant target groups, is a key feature here.

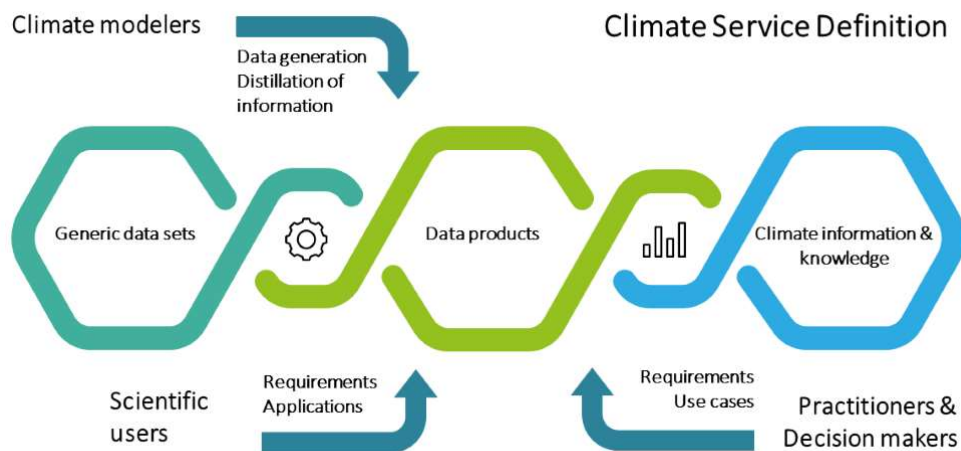


Fig.: Diagram of the Climate Services production chain with implementation stages “raw data sets”, “data products” and “climate information tools” & “knowledge transfer”

As the evaluation of Use.AT shows, climate services are increasingly focusing on the risk aspects of climate change in line with user requirements. This development is due, on the one hand, to the already observed increase in storms and natural hazard events and, on the other hand, to official requirements such as the EU Taxonomy Regulation and national climate change adaptation strategies. The need for information on weather and climate extremes in particular means that the informative value of the available data is reaching its limits. The associated uncertainties in turn increase the complexity of climate information and make it more difficult to use. The implementation of an end-to-end climate service is therefore subject to the conflicting priorities of “relevance”, “reliability” and “usability”.

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While the objectives and questions regarding climate scenarios and climate services are comparable in the various countries, the implemented or planned solutions differ considerably in some cases. These depend on 1) the legal requirements, 2) the specific expectations of the client and 3) the planned applications.

*In France, the legal mandate is to derive the climate conditions for a predefined development path. In the Netherlands, on the other hand, a framework of extremes is defined in order to take all eventualities into account.*

As an example of such differences, we can consider the services of Météo France in France and the KNMI in the Netherlands: Both countries use climate projections based on the same socio-economic scenarios and the corresponding climate forcing ([RCP and SSP scenarios](#)) as the data basis. In France, the legal mandate is to derive the climate conditions for a predefined

development path (various regional and global warming levels linked to a time course) from the data basis in order to take adaptation measures for this path. In the Netherlands, on the other hand, 4 developments (very wet/very dry; cool/hot) are used to define a framework of extremes in order to take all eventualities into account.

Despite these differences, there is a strong focus on scientific exchange between the countries and guidelines ([WMO](#), [ClimatEurope2](#)) are being produced on which aspects are recommended for the creation of climate services at national level.

## What can we learn for the next generation of Austrian Climate Scenarios?

### 1. Clear national framework conditions

Clear framework conditions in terms of commissioning, expectations and targeted areas of application facilitate the implementation of national climate services and help to make them visible as national reference information in Austria: the required information should be known and accessible to all official bodies so that it is clear to which climate changes in the country the public discussion relates.

However, this does not exclude other data sources, especially as continuous further development and international exchange are of great importance.

### 2. Profound definition of target groups

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### 3. Real „Co-Production“

“Co-production” is one way to avoid the ‘usability gap’ described above. This refers to the genuine participation of stakeholders from different user communities in the planning and implementation process of the Climate Service. This is essential in order to make the climate information truly usable for the target groups. The earlier they are involved in the process, the better. They play an important role in the prioritization of information products as well as in the comprehensible preparation of the information. Concrete application examples provided by users are considered very helpful. The examples can be used to discuss the sensible application and usable formats of climate information. The opportunity to ask questions helps to identify sources of misunderstandings and avoid them in the final application.

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