Providing Knowledge for a climate neutral and resilient Europe

Session A Co-designing research for multi-sectoral, multi-facetted risk assessment

What is an operational climate service? How to reach that status and engage users?

Climate Services are often compared to Meteorological Services. For the latter, "operational status" clearly means that the weather information supplied is reliable (within existing scientific limitations), regularly updated, timely, formulated in a way that is understandable to the users, and supported by a stable business model (chargeable or not). From the experience of Meteorological institutes, a service meeting these criteria does attract users.

However such criteria are difficult to transpose to climate services: the quality of information on future climates remains difficult to assess for the shortest time scales (months and seasons) and centennial range projections remain deeply uncertain for a number of climate variables. Furthermore, climate services do not require frequent update like weather information. Their optimal update frequency may range from days or weeks for monthly/seasonal forecasts, to several years for end-of-21st-century climate scenarios. In addition, updates may be required first when science has made significant progress. Unless raising awareness is required, the optimal time to communicate the information depends essentially of users' decision process/cycle. Above all, future climate information is notoriously difficult to communicate to non-specialized audiences. Finally, business models for climate services are still in their infancy.

Should JPI Climate engage in specific activities to boost the operationalization of climate services, it will have to define new criteria to evaluate the R&D proposals that recognize the challenge above.

We will discuss the applicability of such criteria as follows:

- Is the service based on the best available science? How fast can the information be updated whenever scientific progress is achieved (e.g. new scenarios validated by IPCC)

- Does it provide information adapted to the needs of the targeted users? What is its societal impact?

- How fast can the service meet the needs of new users? (e.g. same type of users, but different region of the world)

- Is the business model robust, will the service be sustainable, will an active community of users engage in the climate service development?

- Others?