



## **Tools and recommendations aimed to improve the matching of supply and demand of climate services**

Adriaan Perrels (1), Andrea Damm (2), Raffaele Giordano (3), Peter Stegmaier (4), Ines Vaittinen (5), Patrizia Pawelek (6), Atte Harjanne (1), Klaasjan Visccher (4), Judith Koeberl (2), Raffaele Mattarrese (3), Karoliina Pilli-Sihvola (1), Ivan Portoghese (3), and Riina Haavisto (1)

(1) Finnish Meteorological Institute, Climate Services, Helsinki, Finland, (2) Joanneum Research, (3) Consiglio Nazionale delle Ricerche – Istituto di Ricerca sulle Acque, (4) University of Twente, (5) European Network of Living Labs, (6) UnternehmerTUM GmbH

To support further product development and effective widespread uptake of climate services, as a means to boost mitigation of and adaptation to climate change as well as capabilities to cope with climate variability, the European Commission has included several actions in its current research programme Horizon 2020 (H2020). The H2020 project EU-MACS – European Market for Climate Services – analyses market structures and drivers, obstacles and opportunities from scientific, technical, legal, ethical, governance and socioeconomic vantage points. The analysis is grounded in economic and social science embedded innovation theories on how service markets with public and private features can develop, and how innovations may succeed.

Three focus user groups have been singled out for joint explorations for finding better ways to offer, search, specify, use, quality control, etc. climate services, being: the finance sector, tourism, and urban planning. For the three focus groups several approaches are explored to improve matching, and to develop simple tools to support this. From an economic theoretical point of view several so-called market failures affect simultaneously, whereas it is not a priori clear for every user segment which failures are the dominant cause of lackluster market uptake, nor is it clear what would happen in reality, e.g. in terms of market structure and product choice, if some failures would be largely eliminated. For example, a quite generic problem is the absence or at least underdeveloped state of business & resourcing models among many (public) climate services providers. If this would improve greatly, it might also significantly alleviate failures at the user side, which in turn could ‘tilt’ the market dynamics and challenges to new topical domains.

In the presentation and the paper we will summarize the findings for winter tourism and for urban planning. On the one hand summarize the commonalities and differences in approaches (interactive bidding; Living labs; CTA embedded value proposition) and on the other hand present some key features of developed tools. More material of the project can be found from: <http://eu-macs.eu/outputs/#>