Voices from the field: climate prediction requirements in the agricultural sector from the MED-GOLD initiative

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The main objective of the EU funded Horizon 2020 MED-GOLD project (https://www.med-gold.eu/) is to demonstrate the proof-of-concept for climate services in agriculture by developing case studies for three staples of the Mediterranean food system: grapes, olives and durum wheat.

MED-GOLD benefits from the contribution of world leaders in the production of wine, olive oil and pasta (SOGRAPE, DCOOP, and Barilla, respectively) who are playing the role of problem-holders in the co-design of climate services for the three pilot services. The participation of those three champions in the co-design process will also catalyze and speed up the engagement of a wider community of users in these sectors across Europe.

Initial hypotheses of each sectoral needs have already been identified in the proposal phase in cooperation with the industrial partners. MED-GOLD adopts a seamless approach whereby innovative climate service tools for the management of climate risks build upon existing ones, and will benefit from the existence of seasonal climate predictions and long-term climate change projections. The new climate service tools will first be evaluated by applying them retrospectively to recent adverse climate events for testing their added value to the users' decision-making processes.

Each pilot service will deal with specific questions and associated decisions identified by the MED-GOLD industrial partners. A coordinated and crosscutting mapping of the overall agricultural sector will allow the consortium to identify, from the outset of the project, other relevantplayers to be engaged in the MED-GOLD community for the validation and up-scaling of the pilot services. A key aspect in the co-development of the pilot services is to manage the expectation of end-users.

A common user-driven methodological framework has been developed in the early stages of the project and is being adopted to co-develop the MED-GOLD pilot services for the three main crops of interest. In particular, a preliminary analysis of each pilot service has been pursued through scoping workshops held in the last months as well as focus group discussions, to identify the specific needs of the MED-GOLD industrial partners and the assess the vulnerability and opportunities for each specific MED-GOLD case studies. Particular attention has been devoted to key decision-making processes that underlie each case, to better identify how and when the outcomes of the pilot services to be developed can better support and inform those decisions

Subsequently, the methodological issues for each of the MED-GOLD pilot services will be addressed by: (i) collecting the various data required; (ii) analysing the climate data of interest from available data stores and from the concomitant initiatives through the MED-GOLD Information and Communications Technology (ICT) platform ; (iii) assessment of the quality of the observational data available along with the skills of climate predictions/projections required for the variables of interest