



Introducing climate and crop-growth modelling tools to provide climate-risk mitigation options to European agriculture: The role of local researchers, seasonal forecasts and demonstration proposals

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Negative climate-change impacts on European agriculture could be reduced by adopting reliable mitigation options as obtained from crop-model simulations combined with climate scenarios. The usefulness of such simulation tools has been proved in manifold papers that appeared in the last years, usually produced in Universities or similar centres. However, despite of the considerable public concern about climate variability, European stakeholders and farmers are not yet using these scientific results for agricultural decision-making. Researchers from local agricultural-services can effectively realize which practical decisions should be taken for mitigating the possible climate risks on their local conditions. Nevertheless, those local institutions are not usually connected to high-level researches neither to EU funding procedures and they need support before being able to use the current climate and crop-growth modelling tools. According to this, the EU-funded proposal AGRIDEMA provided initial contacts and feedback mechanisms between high level research centres and Universities; where modelling tools have been developed and tested (“developers”); with their potential users of these tools, located mainly in regional Agricultural Research Services (“users”). Connections between “developers” and “users” were made through short courses and about 20 pilot assessments conducted in several European countries. Local researchers knew in the AGRIDEMA courses how to access to GCM

data and seasonal forecasts. They receive also basic knowledge on weather generators, statistical and dynamical downscaling; as well as several crop models.

Stakeholders will adopt climate-risk mitigation options only if they realize the reliability of such options on their specific cases. To achieve this, the “users” of the modelling tools must develop local demonstration proposals, aimed to model calibration and validation, etc. Such demonstration proposals should be initially included in the FP7 Cooperation calls, since stakeholders are still unfamiliar with this technology and the “users” need the “developers” support. The FP7 Capacities calls, involving SMEs, could be the precise way to introduce such tools in a second step, although large validations are needed before practical introductions.