



## **A survey about weather warning communication system in Tuscany.**

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LaMMA is a governmental consortium between the National Research Council of Italy and the Regional Government of Tuscany Region. Consorzio LaMMA plays the role of regional weather service for the region, continuously monitoring weather conditions and delivering accurate weather forecasts for Tuscany citizens, institutions and industries. One of the most important roles is the issue of timely and reliable severe weather warnings towards the Civil Protection System and population. The warning system has been reformulated in 2014 and after a one-year testing it is now fully operational since July 2015. At this time, it is important to verify if and how the actors who cooperate within the Tuscany Civil Protection System have correctly grasped the new Warning System as to take action at the local level in case of emergency.

On this purpose, in the period from December 2016 through March 2017, a survey has been conducted through online questionnaires for institutional and professional users (n=90).

The survey was composed of several sections covering the main aspects of the Warning System and its use. The first section concentrated on user's knowledge of the different components of the system and their interpretation (different bulletins, warning levels, actions to be taken); the second regarded the evaluation of different aspects of the warning bulletins in terms of content accuracy, timing and visual aspect; the third investigated the usefulness and completeness of the information for decision making at local level. Furthermore, some open questions were selected to identify preferences and improvements in the weather warning communication process in Tuscany Region. A final section investigated the self-declared knowledge about meteorology and skills to interpret weather information and maps. Some of the topics were also further investigated through semi-structured interviews with institutional and professional users. Results from the online survey and other investigations are presented drawing interesting conclusions on the System.

A better understanding of current perception and usage of warnings bulletin by the member of the Civil Protection system is a fundamental step to eventually improve the Tuscany weather warning communication system. This will also allow to fully accomplishing the mission of LaMMA Regional Weather Service.