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IRRIMET: a web 2.0 advisory service for irrigation water management

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Irrigation agriculture is one the biggest consumer of water in Europe, especially in southern regions, where it accounts for up to 70% of the total water consumption. The EU Common Agricultural Policy, combined with the Water Framework Directive, imposes to farmers and irrigation managers a substantial increase of the efficiency in the use of water in agriculture for the next decade. Irrigating according to reliable crop water requirement estimates is one of the most convincing solution to decrease agricultural water use.
Here we present an innovative irrigation advisory service, applied in Campania region (Southern Italy), where a satellite assisted irrigation advisory service has been operating since 2006. The advisory service is based on the optimal combination of VIS-NIR high resolution satellite images (Landsat, Deimos, Rapideye) to map crop vigour, and high resolution numerical weather prediction for assessing the meteorological variables driving the crop water needs in the short-medium range. The advisory service is broadcasted with a simple and intuitive web app interface which makes daily real time irrigation and evapotranspiration maps and customized weather forecasts (based on Cosmo Leps model) accessible from desktop computers, tablets and smartphones.