

BEYOND Center of Excellence for EO-based monitoring of natural disasters

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Abstract

BEYOND project (2013-2016, 2.3M€) funded under the FP7-REGPOT scheme is an initiative which aims to build a Centre of Excellence for Earth Observation (EO) based monitoring of natural disasters in south-eastern Europe (<http://beyond-eocenter.eu/>), established at the National Observatory of Athens (NOA). The project focuses on capacity building on top of the existing infrastructure, aiming at unlocking the institute's potential through the systematic interaction with high-profile partners across Europe, and at consolidating state-of-the-art equipment and technological know-how that will allow sustainable cutting-edge interdisciplinary research to take place with an impact on the regional and European socioeconomic welfare. The vision is to set up innovative integrated observational solutions to allow a multitude of space borne and ground-based monitoring networks to operate in a complementary and cooperative manner, create archives and databases of long series of observations and higher level products, and make these available for exploitation with the involvement of stakeholders.

BEYOND will focus on improving the interdisciplinary approach which is necessary for disaster management, crossing the boundaries between the traditional academic disciplines, technological expertise, and research methodologies.

Moreover, through BEYOND, the National Observatory of Athens will enhance its international collaborations, via twining with high excellence partners at European level, drawing new creative perspectives in the Relevant Research Area, and allowing sustainable collaborative schemes to be formed and synergies to flourish.

The collaboration schemes foreseen in BEYOND, and the coordinated operation of monitoring infrastructures, will allow to up-scale our regional role for contribution to the ERA on disaster management, and together with the partnering organisations built in the appropriate capacity level for providing innovative solutions and information to the involved communities for sustaining the centre's operation in future.

The research portfolio of BEYOND Center of Excellence covers a broad spectrum of phenomena such as earthquakes, volcanoes, extreme weather events, fires, fire smoke and toxic gasses, emission concentrations, manmade hazards, dust storms, air quality and impacts to human health. This session is dedicated to providing characteristic examples of user-tailored, operational and pre-operational services that are currently or will be soon available in the framework of the BEYOND Center of Excellence.

Keywords: BEYOND; capacity building; infrastructure, Earth Observation