



## **WeObserve: An Ecosystem of Citizen Observatories for Environmental Monitoring**

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The last decade has witnessed a rise in the field of citizen science which can be described as a collaborative undertaking between citizens and scientists to help gather data and create new scientific knowledge. In the EU, efforts have been channeled into developing the concept of Citizen Observatories (COs), which have been supported via the Seventh Framework Program (FP7) and continue to be funded in Horizon 2020. COs, often supported by innovative technologies including Earth Observation (EO) and mobile devices, are the means by which communities can monitor and report on their environment and access information that is easily understandable for decision making. To improve the coordination between existing COs and related citizen science activities, the WeObserve project tackles three key challenges that face COs: awareness, acceptability and sustainability. The WeObserve mission is to create a sustainable ecosystem of COs that can systematically address these identified challenges and help move citizen science into the mainstream. The WeObserve approach will apply several key instruments to target, connect and coordinate relevant stakeholders. The first is to develop and foster five communities of practice to strengthen the current knowledge base surrounding COs. Topics will include citizen engagement, the value of COs for governance and CO data interoperability. In co-creating this knowledge base, CO practitioners will have a platform to effectively share best practices and avoid duplication. Secondly, the project will expand the geographical reach of the knowledge base to different target groups via toolkits, a Massive Open Online Course (MOOC), capacity development roadshows and an Open Data Exploitation Challenge, to strengthen the uptake of CO-powered science by public authorities and SMEs. A third mechanism will forge links with GEOSS and Copernicus to demonstrate how COs can complement the EU's Earth Observation monitoring framework. This paper will describe these various mechanisms and issue a call to bring together diverse stakeholders who share a joint (practice-oriented) interest in citizen science. The WeObserve consortium brings together the current H2020 COs (Ground Truth 2.0, GROW, LandSense, Scent) who will actively open up the citizen science landscape through wide ranging networks, users and stakeholders, including ECSA, GEOSS and Copernicus to foster social innovation opportunities. The WeObserve approach and outcomes have the potential to create a step-change in the Earth Observation sector and make COs a valuable component of Earth system science research to manage environmental challenges and empower resilient communities.