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Early results, perspectives, and an invitation

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TWIGA: Sensors for geo-services in Africa. Early results, perspectives, and an invitation

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Earlier this year, the European Commission started funding the project "Transforming Water, weather, and climate information through In situ observations for Geo-services in Africa", or TWIGA. 'Twiga' is the Swahili word for giraffe, an animal that derives a competitive advantage from carefully observing its environment. The project aims to develop new geo-services for the water and climate sectors through development of new sensors and associated value chains. Sensors at different Technology Readiness Levels are foreseen to be developed, tested, and embedded in actionable information services. Special emphasis is paid to ground-based sensors that enhance satellite observations. The consortium has eighteen partners from Europe and Africa, including SMEs, universities, and government organizations.

Using the network of meteorological stations built in the framework of the TAHMO (Trans-African Hydro-Meteorological Observatory, see www.tahmo.org), new sensors can be rapidly deployed and tested at hundreds of sites in Africa. The present list of experimental sensors to be built and tested include:
- 100 Euro neutron counter
- Laser micro scintillometer
- Evaporometer (developed at Oregon State University)
- Intervalometer rain gauge*
- Lightning tracking*
- GNSS water vapor*
- GNSS soil moisture status*

The starred (*) sensors are sensors for which some early activities have been undertaken and for which results will be presented. For all sensors, the general idea and usefulness will be explained.

Finally, TWIGA is an open project and we would like to extend an invitation to other research groups to use our network to test new sensors in our African network.

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