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## TEMBO Africa: New sensors and geo-services for water management and agriculture

**Nick van de Giesen**<sup>1</sup>, Hessel Winsemius<sup>2</sup>, Frank Annor<sup>1,3</sup>, Tomáš Fico<sup>4</sup>, Eugenio Realini<sup>5</sup>, Remko Uilenhoet<sup>1</sup>, and Salvador Peña-Haro<sup>6</sup>

<sup>1</sup>Delft University of Technology, Water Management, Water Resources, Delft, Netherlands (n.c.vandegiesen@tudelft.nl)

<sup>2</sup>Rainbow Sensing, Netherlands

<sup>3</sup>Trans-African Hydro-Meteorological Observatory, Kenya

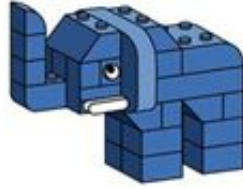
<sup>4</sup>Microstep MIS, Slovakia

<sup>5</sup>GReD, Italy

<sup>6</sup>photrack, Switzerland

TEMBO Africa is a project funded by the European Commission that seeks to fill some of the many geo-data gaps in Africa. Specifically, TEMBO Africa will produce operational data products for rainfall, river flow, soil moisture, bathymetry, and open water. With these products, new services will be developed for reservoir management, germination insurance, and flood early warnings. The products will be the result of the combination of innovative *in situ* sensors, satellite observations, and environmental models. There will be at least seven innovative *in situ* sensing methods involved, namely X-band rainfall radars, neutron counting for soil moisture based on natural boron, commercial microwave links, camera-based velocimetry, bathymetry with fish finders, raindrop intervalometers, and GNSS level sensors. TEMBO Africa is transformative in that it aims to reduce the total costs of ownership of the geo-services to less than 10% of present costs. We do not only look at the capital costs of the sensors but also at reduction of maintenance cost and the availability and development of human resources. For this reason, co-development is essential to ensure that context specific challenges are addressed. In this presentation, we highlight the general design approach and early results.

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