



Committee on Earth Observation Satellites

Systems Engineering Office (SEO) Report

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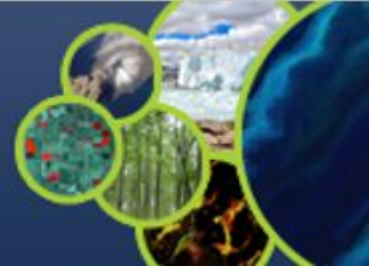
CEOS Systems Engineering Office (SEO)

CEOS SIT Technical Workshop 2020

Session 1.1, Item #3 - SEO Report

7-11 and 14-18 September 2020

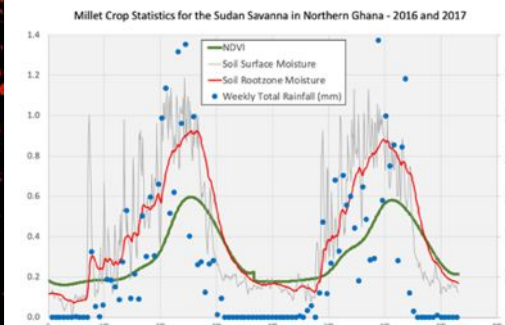
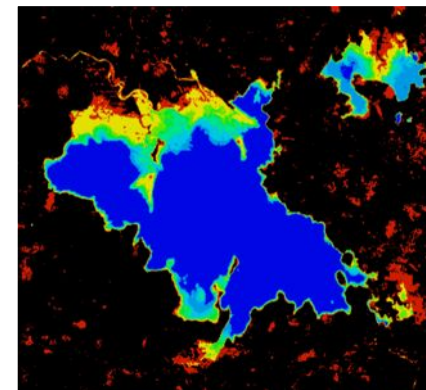
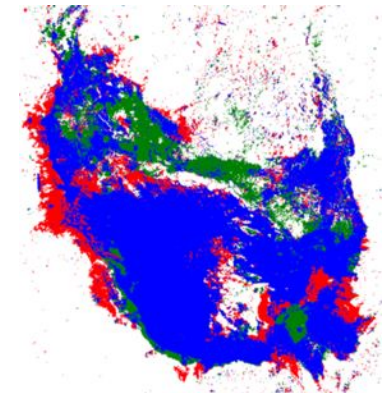
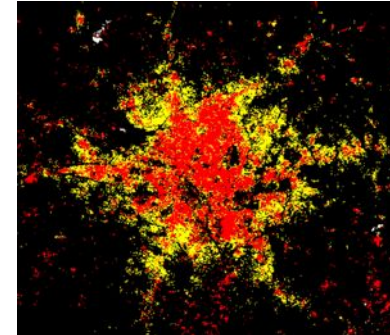
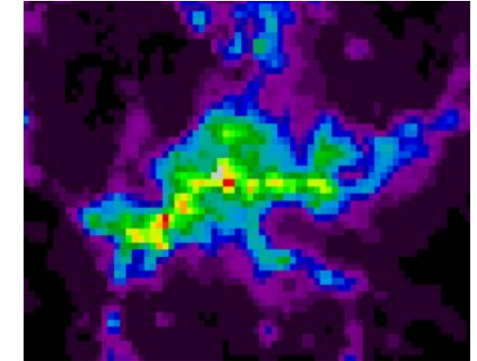
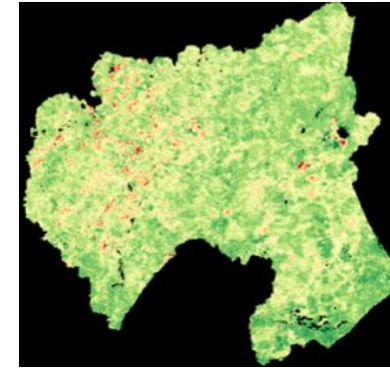




- **Analysis Ready Data (ARD)** ... working with DE-Africa to co-fund (via Sinergise) the development of a Sentinel-1 Data Cube processing method that complies with ARD specifications and works well with the cloud (e.g. COG, STAC).
- **Support to SDGs** ... continuing development and testing of ODC algorithms focused on SDG 6.6.1 (water) and SDG 11.3.1 (urbanization).
- **ODC Amazon Sandbox** ... developing a data cube “sandbox” on the Amazon Cloud that will connect to the new Landsat and Sentinel-2 global archives on AWS-West.
- **Africa Regional Data Cube** ... continuing to support the transition to Digital Earth Africa and participate in the DE-Africa Technical Advisory Committee (TAC)
- **Earth Analytics Interoperability Lab** ... working with CSIRO to support data and algorithm testing for CEOS initiatives (COAST, Disasters, Rice Monitoring, GHG, DEM evaluation).
- **COVE Tool** ... continuing work on a new coverage/revisit performance feature and a new coincident observation tool
- **CEOS Outreach** ... participation (session chair, papers, presentations) at the IGARSS Conference. CEOS social media presence continues to grow ... 2528 Twitter followers, 1603 Facebook likes, 20,000+ website visits.
- **Open Data Cube (ODC)** ... more on the next page



- **Open Source Geospatial Foundation (OSGeo)** ... working with the ODC team to add the ODC to OSGeo.
- **Google Cloud Prototype** ... testing ODC installed on Google Cloud and connected to Earth Engine datasets ... working very well!
- **Advancing ODC Algorithms** ... improving Jupyter notebooks for easier use and training (with DE-Africa) and enhancing products
- **Digital Earth Americas** ... first meeting (limited attendance) was held on August 19. Exploring user needs and next-steps.
- **Digital Earth Pacific** ... contacted by SPC (Pacific Islands) to discuss ideas for a DE-Pacific data cube. Vanuatu may be the first prototype.
- **User Forum** ... investigating the forum used by “Sentinel Hub” to support the growing number of global ODC users

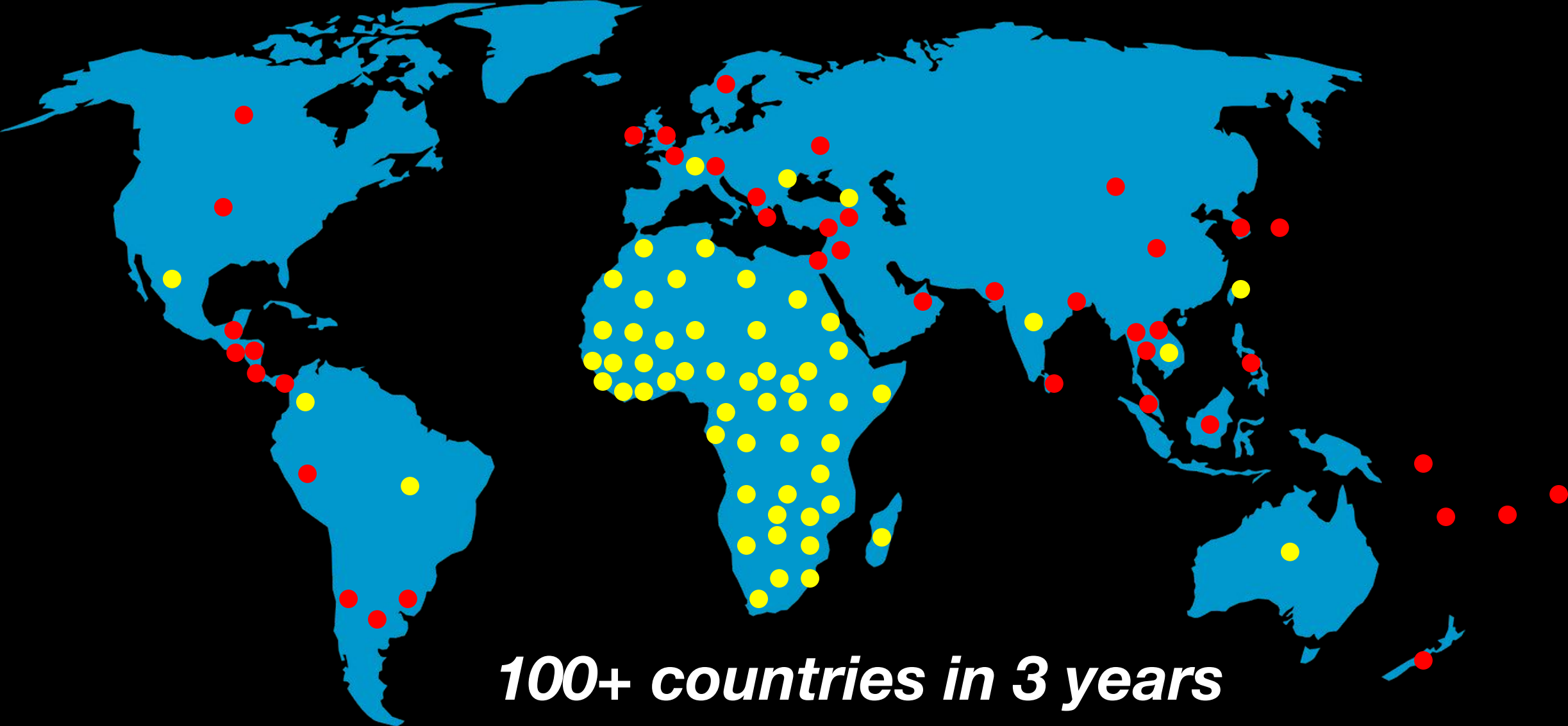


ODC Website: www.opendatacube.org

ODC GitHub: <https://github.com/opendatacube>

ODC Global Impact

- Operational
- In-Development or Under Consideration



100+ countries in 3 years

VIIRS Nightlights

A coarse measure of urban expansion for Kumasi, Ghana

2013 to 2019

Monthly Mean Radiance
(May of each year)

Products generated using ODC on the Google Cloud
with Earth Engine datasets

2013

