

CEOS WGV 46

Philippe Goryl
ESA





- 1. Background**
- 2. Experience In CEOS**
- 3. My Views on WGCV**
- 4. Approaches**
- 5. Conclusion**



- Born in 1966 in Argenteuil, France, I have been at ESA since 1995. In 1990, I received my Master's Degree **in Physics in Remote Sensing** from Paris VII Jussieu.
- I later spent almost two years at ORSTOM (currently IRD – Institut de Recherche pour Développement) in Dakar, Sénégal, where I worked on west **African climate and sea-surface temperature** retrieval from Meteosat satellites.
- In 1993, I was recruited as a Young Graduate at ESA's Earth Observation Centre, in Italy. Here, I started to work on the **Japanese satellite JERS-1 optical sensors**, assessing and improving the quality of its products.
- In 1995, I gained a staff position in ESA's Directorate of Earth Observation. Working in the Operation Division. I was involved with **optical sensor** quality, in particular, on **Landsat and the Along Track Scanning Radiometers** carried on ERS-1 and ERS-2.
- In 2000, I moved to the sensor performance products and algorithm section in the Ground Segment and Mission Operations Department where I followed the development and operation of the **Advanced Along Track Scanning Radiometer and MERIS** on Envisat. I became the data quality manager for the **Ocean and Land Colour Instrument and the Sea Land Surface Temperature Radiometer** instrument on Sentinel-3.
- I was in charge of the development and operations of the mission for all aspects related to the sensor **calibration, products validation, products quality control** and the definition of products and algorithm evolutions.
- Since June 2016, I have been **head of the Sensor Performance, Products and Algorithms section**.





- **ESA representative in CEOS WGCV IVOS since 2005**
- **ESA representative in CEOS WGCV since 2016**



In particular, contribution to:

- Cal/Val Portal Development
- RadCalNet
- Metrology

→ Uncertainties

→ Fiducial Reference Measurement

→ *Miami intercomparison, OC intercomparison, FRM4STS, FRM4SOC, FRM4GHG, FRM4DOS, FRM4VEG, FRM4SAR ...*





Support CEOS priorities

- Support of Societal Challenges e.g. Climate change, Sustainable Development Goals (SDGs).
- CEOS Working Groups, Virtual Constellation teams and Ad Hoc teams
- Projects (ex: current Coast Project)

Major Area of Interest - priorities

- GHG, carbon, climate, BIOMASS
- Surface Reflectance
- ARD and Harmonisation, interoperability
- Calibration Validation
 - → Fiducial Reference Measurement
 - → Reference Test Site and Network
 - → FRM in Space (Clarreo, TRUTHS, China Reference)

Guidance for Agencies and New Space



Relies on WGCV Sub-Groups – coordinated approaches

Focused Working Group within WGCV or WGCV sub-groups proved to be efficient (PICSAR, MTF, RADCALNET, SAR ARD, LST, Biomass protocol...etc...)

Intercomparison

- *ACIX, DEMIX, CMIX, BRIX*
- *FRM (ex: CEOS Miami exercise)*

Workshops

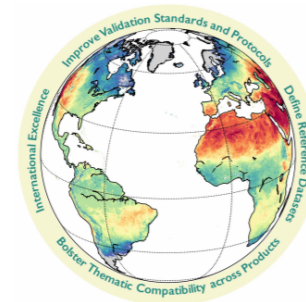
Communication

- Publications (best practises, bulletin)
- GSICS coordination



Committee on Earth Observation Satellites
Working Group on Calibration and Validation
Land Product Validation Subgroup

**Land Surface Temperature Product Validation
Best Practice Protocol**



Version 1.0 - October, 2017

Editors: Pierre Gullelic, Frank Göttsche, Jaime Nickeson, Miguel Román

Authors: Pierre Gullelic, Frank Göttsche, Jaime Nickeson, Glynn Hulley, Darren Ghent, Yanyue Yu, Isabel Trigo, Simon Hook, José A. Sobrino, John Remedios, Miguel Román and Fernando Camacho

Citation: Gullelic, P., Göttsche, F., Nickeson, J., Hulley, G., Ghent, D., Yu, Y., Trigo, I., Hook, S., Sobrino, J.A., Remedios, J., Román, M. & Camacho, F. (2017). Land Surface Temperature Product Validation Best Practice Protocol. Version 1.0. In: P. Gullelic, F. Göttsche, J. Nickeson & M. Román (Eds.), Best Practice for Satellite-Derived Land Product



GEOSS

A central part of GEO's Mission is to build the Global Earth Observation System of Systems (GEOSS). GEOSS is a set of coordinated, independent Earth observation, information and processing systems that interact and provide access to diverse information for a broad range of users in both public and private sectors. GEOSS links these systems to strengthen the monitoring of the state of the Earth. It facilitates the sharing of environmental data and information collected from the large array of observing systems contributed by countries and organizations within GEO. Further, GEOSS ensures that these data are accessible, of identified quality and provenance, and interoperable to support the development of tools and the delivery of information services. Thus, GEOSS increases our understanding of Earth processes and enhances predictive capabilities that underpin sound decision-making: it provides access to data, information and knowledge to a wide variety of users.



CEOS WGCV

*Knowledge and Trust
Harmonise satellite calibration
Provide Traceability
Provide Reference and Guidance*



ESA will take on Chair of the CEOS Strategic Implementation Team (SIT) at 2021 CEOS Plenary (Oct. 2021) for a 2-year term (2022-2023).

European Presence in CEOS : ASI, BELSPO, CDTI, CNES, DLR, EC, ESA, EUMETSAT, NSO, and UKSA are CEOS Members (10 out of 34). NSC & SNSB are CEOS Associates (2 out of 26).

ESA sees WGCV as an active and strategic group

I have a Background in Cal/Val and international environment

I am enthusiastic and CEOS supporter

I believe that CEOS WGCV has a major role to play

Quality Standard, Best practise

Reference

Knowledge

Trust

Golden age for remote sensing from space : Multiplication of missions, actors, data coordination is needed

[Role of CEOS](#)

ESA EO

Thank you for your attention!



Taking the Pulse of our Planet

www.esa.int

ESA UNCLASSIFIED – For Official Use



European Space Agency