CEOS Cal/Val Portal Update

Steffen Dransfeld (ESA/ESRIN)

Slides provided by Paolo Castracane
RHEA c/o ESA ESRIN

CEOS/IVOS Perth, 25-29 March 2019

CEOS Cal/Val Portal Update

Table of Contents:

Outreach of CEOS WGCV

Outreach of CEOS working group CalVal (WGCV) is divided in two websites:

http://calvalportal.ceos.org/

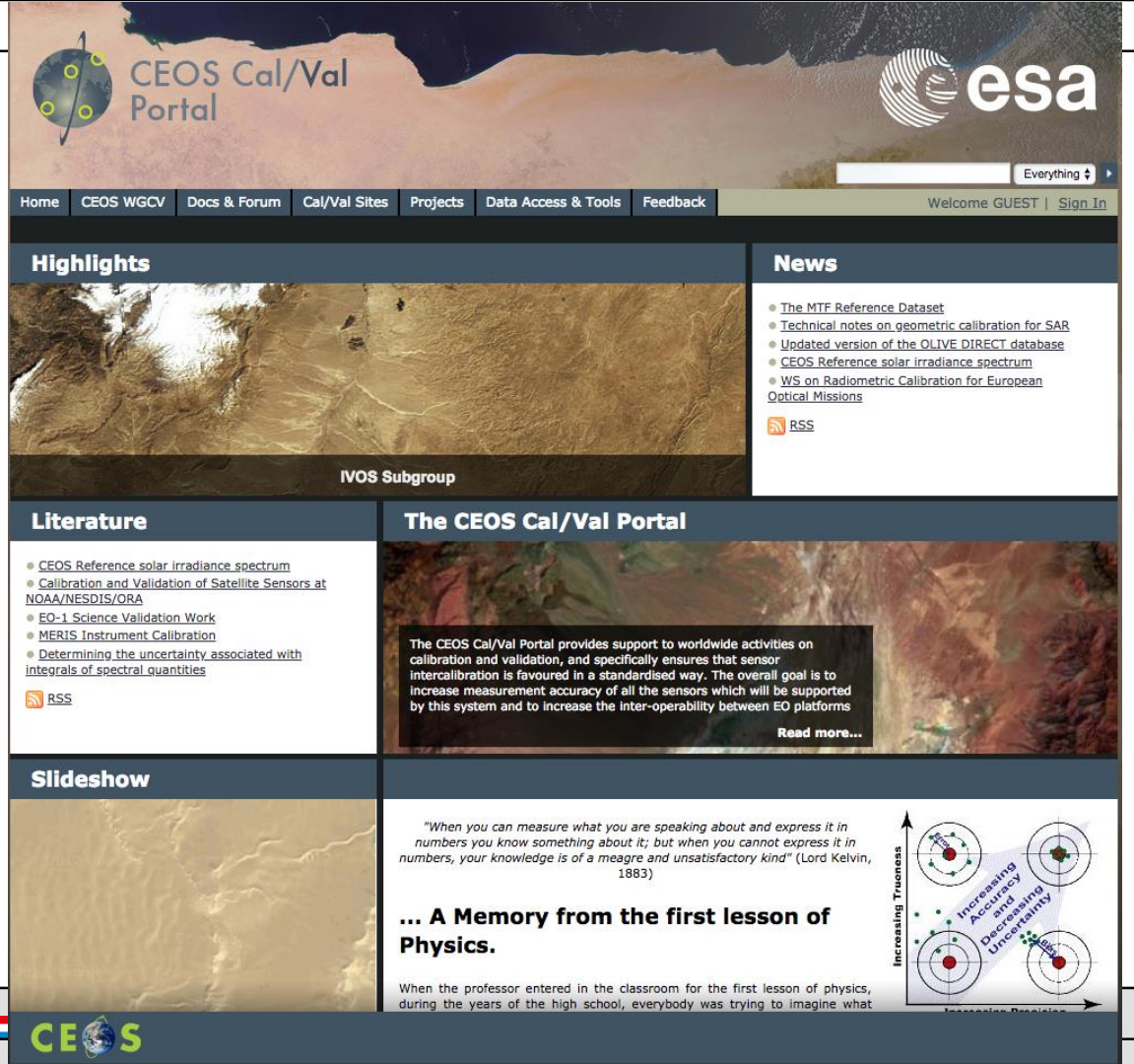
- Hosted by ESA
- Include mainly technical content, tools, data access and literature.

http://ceos.org/ourwork/workinggroups/wgcv/

- Hosted by NASA
- Contains mainly current activities, objectives, organizational, and other content-related matter

CEOS Cal/Val Portal Overview

- The CEOS Cal/Val portal is a web portal funded by ESA and made available to the CEOS WGCV community as a reference point to share, store and publish Cal/Val related data and information.
- The Portal is technically managed by Brockmann Consult GmbH
- Two years Contract for Maintenance and Evolution has been signed on April 2018



Cal/Val portal main contents

- **Home Page:** Main Menu, Mission Statement within the CEOS Cal/Val Portal box, Highlights, News, Literature and Slideshow.

From main menu:

- **Home:** News & Events, Links
- **CEOS WGCV:** CEOS WGCV – CEOS Meeting, CEOS Publications, ACSG (Atmospheric Composition Sub Group) , IVOS (Infrared and Visible Optical Sensors SubGroup), LPV (Land Product Validation SubGroup), SAR (Synthetic Aperture Radar SubGroup) and MSSG (Microwave Sensor Subgroup)
- **Docs & Forum**: Methodology and Guidelines, QA4EO, Literature, Forum and Missions
- **Cal/Val Sites:** CEOS LandNet Sites, Calibration Test Sites, Cryonet Sites, RadCalNet Prototyping, Radiometric Sites, PICS
- **Projects:** FRM, MVT,ALTS, G-VAP, SnowPEX, ACIX
- **Data Access & Tools:** Query Products, Metric Data, MTF Reference Dataset, CalVal SW Tools, CalVal SW Services, DIMITRI, COVE, 6s Input Configuration, OLIVE, IMPETUS

* in blue the latest updates/inclusions

CEOS Cal/Val Portal – current Status

Home Page:

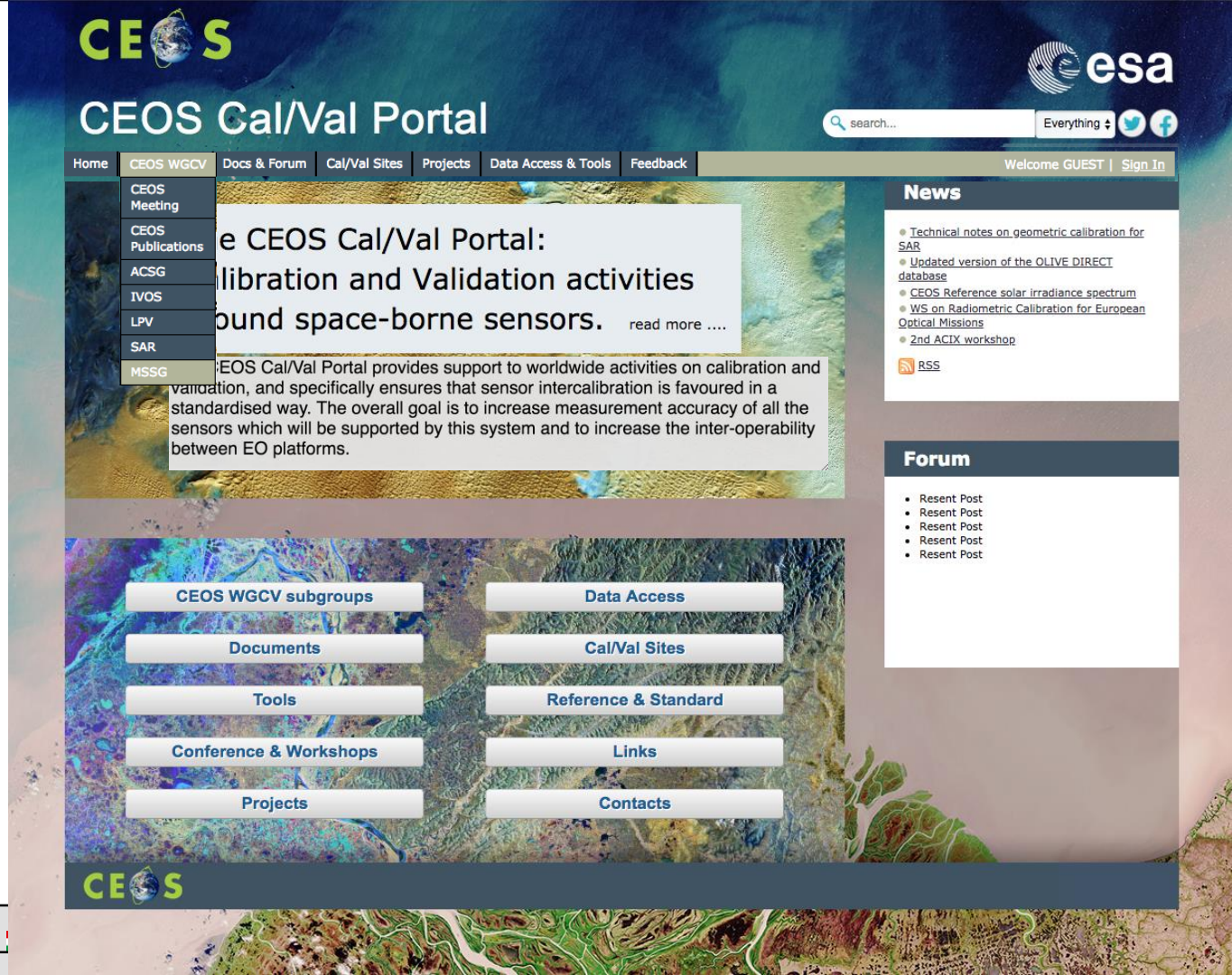
- A renewal of the Home page is planned
- RSS subscription for “News” and “Literature”.
- “News & Events” need a frequent update
- New dedicated pages for: “Workshops & Conferences” “Reference & Standard” and “Contact”. Forum panel will be in the Home page

CEOS Cal/Val proposed re-shape

"Mission Statement" extended by the read more option, and some clickable blocks

show/hide menu and sub-menu (by a click)

News and Forum



CEOS CalVal Portal – Current Status

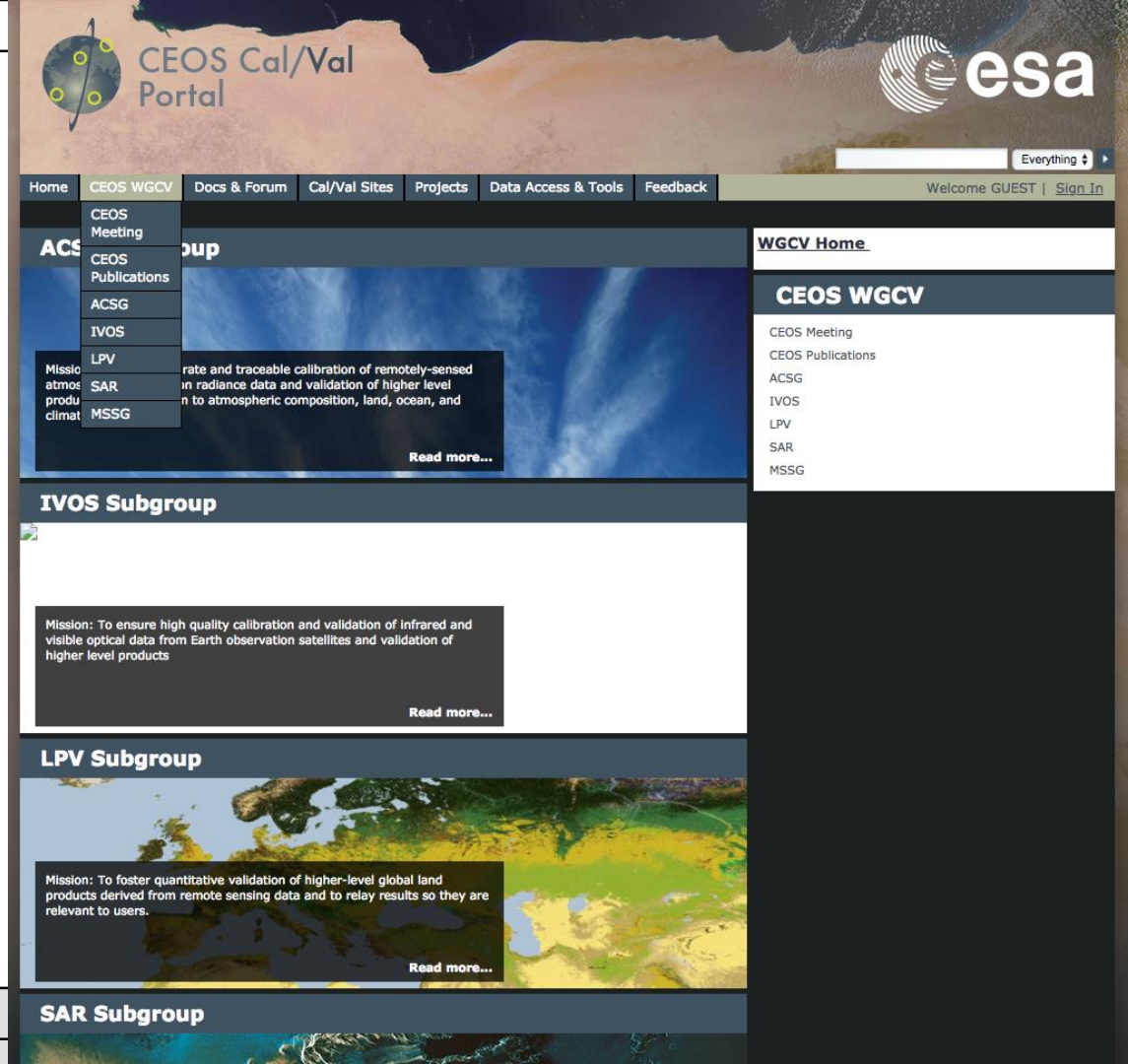
CEOS WGCV section:

[CEOS Meeting]

[CEOS Publications]

Subgroups: ACSG, IVOS, LPV, SAR and [MSSG (TMSG to be added ?)]

Repository (to be added)



CEOS Cal/Val proposed re-shape

The CEOS WGCV page.
It includes:

- All Subgroups: info, relevant materials etc.
- CEOS Home and Newsletter links
- CEOS Repository: a dedicated and shared space for relevant documents

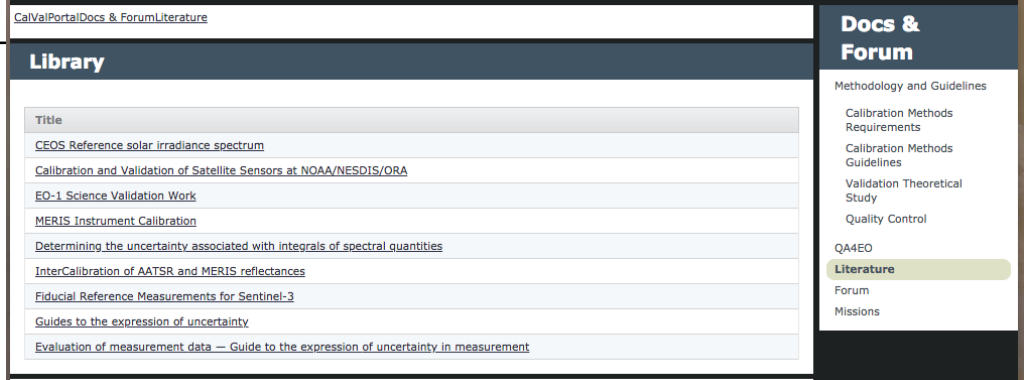
CEOS CalVal Portal – Current Status

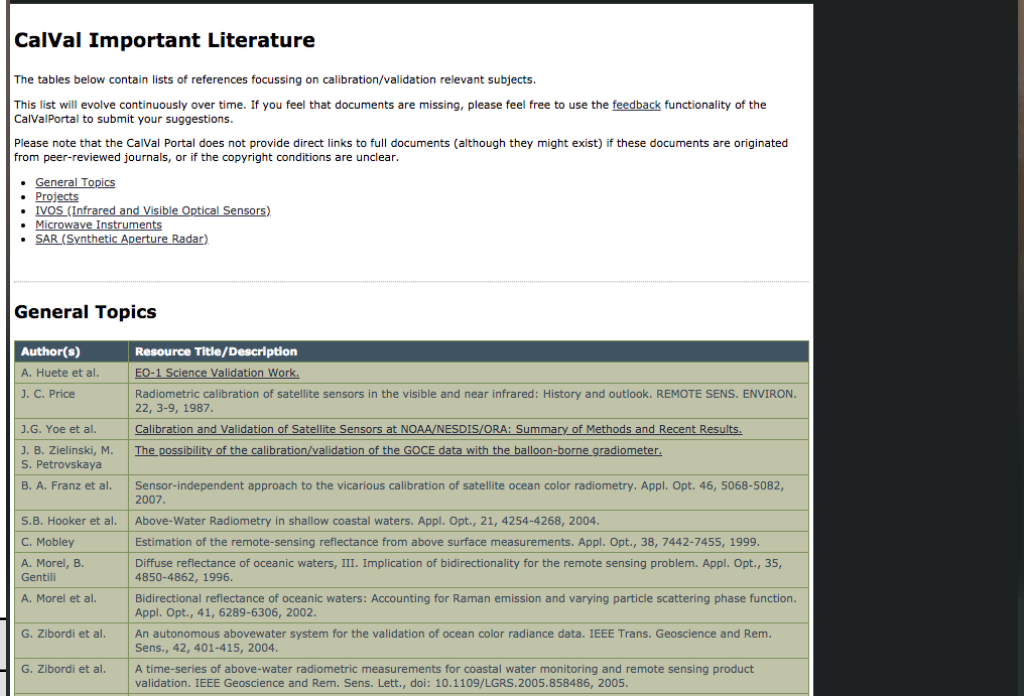
Doc & Forum:

The contents need an update for both “Methodology and Guidelines” and “Literature”

In this section we propose to include/update at least:

- Terms and Definitions,
- Standard in terminology and methodology
- Relevant technical reports for Cal/Val activities.
- Updated material concerning LPV Supersites
- Cal/Val activities for Ocean Color
- Sea Surface Temperature, from the SMOS Mission

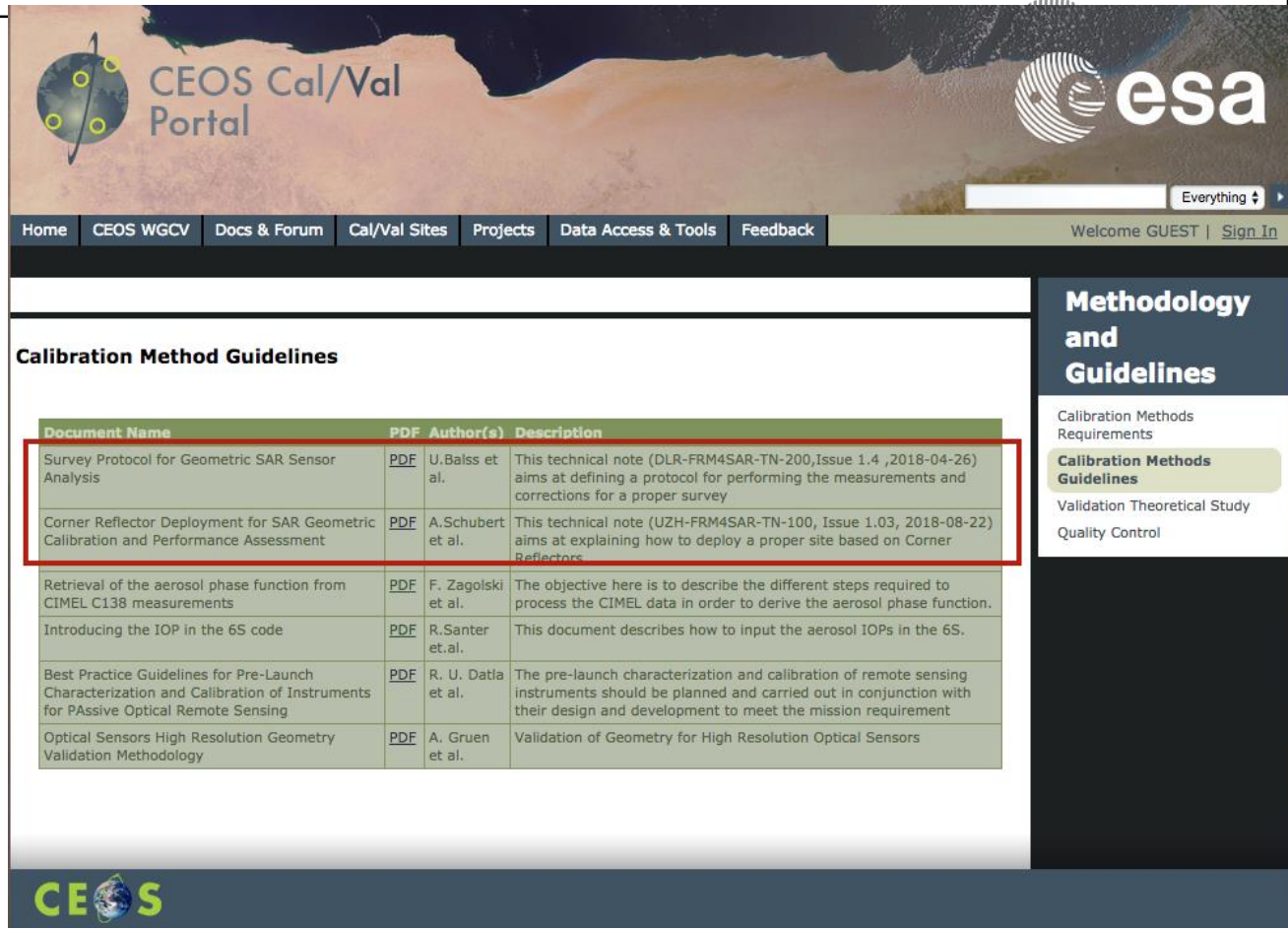




CEOS CalVal Portal Current Status

As part of the FRM4SAR project on geometric calibration, DLR and UZH have written two documents addressing the topic of the geometric calibration for SAR:

- The first TN (TN 100) aims at explaining how to deploy a proper site based on Corner Reflectors.
- The second TN (TN 200) aims at defining a protocol for performing the measurements and corrections for a proper survey



CEOS CalVal Portal: examples of key docum

Three doc.s have been indicated (email exchar

- *CEOSTermsAndDefinitions.pdf* Term and c
- *IASB-BIRA_Standard_Terms_and_Definit*
- *Schaepman_Sage_HB_RS09.pdf* Radio Concepts to Measured Quantities Gabriela Handbook of Remote Sensing

Regarding Super Sites:

- EOLAB_18PPT04_LPVE_SuperSites_Camacho.pdf

CEOS Cal/Val proposed re-shape

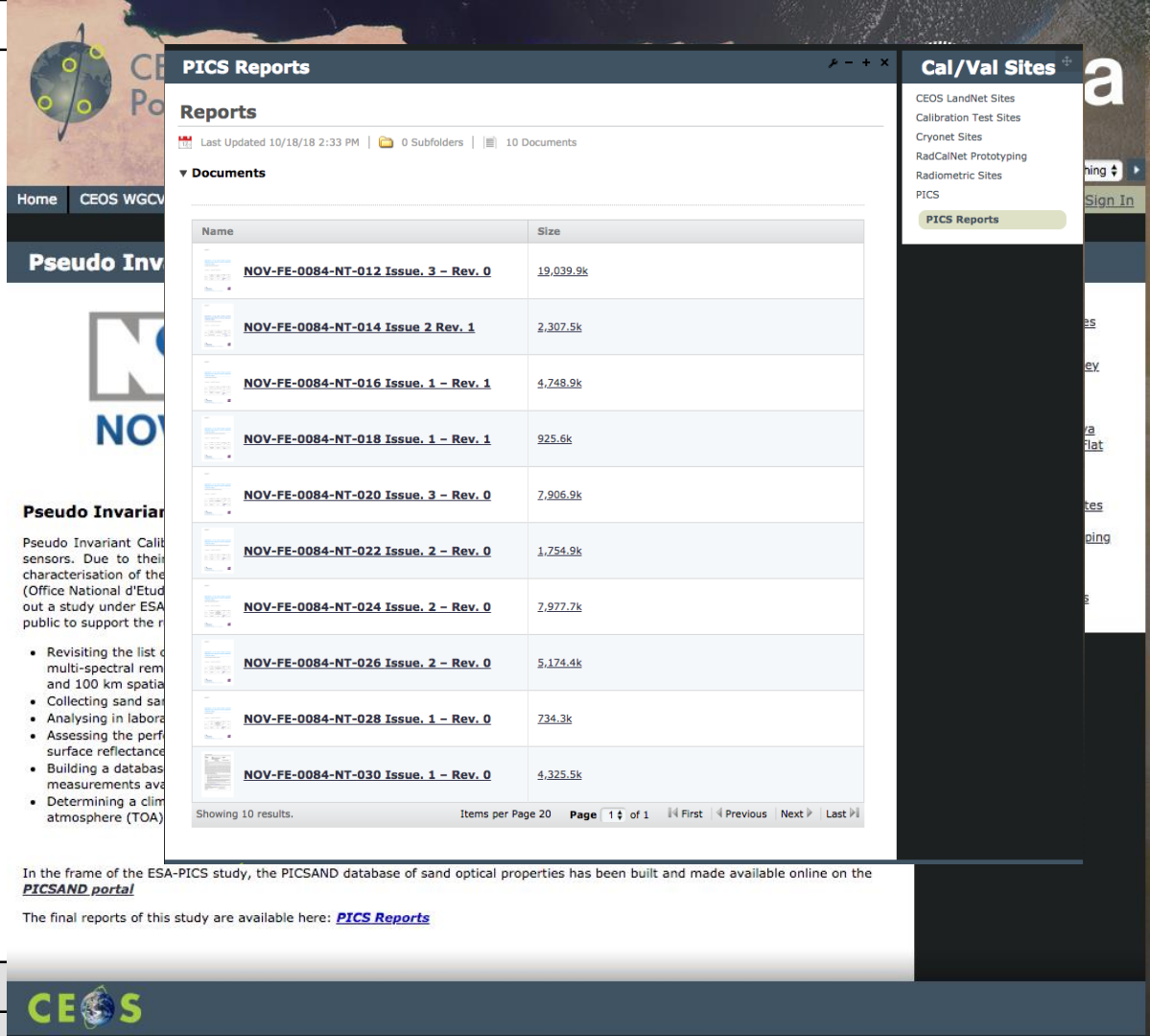
- "Documents" and "Reference & Standard" two separated pages
- Documents page will include relevant and updated i… as well as inform… current satellite Missions/Sensors
- Reference & Stand… represents the plac…older for all the materials, methodologies, guidelines and standard references for Cal/Val activities

Feedback very welcome !!!

CEOS Cal/Val Portal Current Status

"**CalVal Sites**"

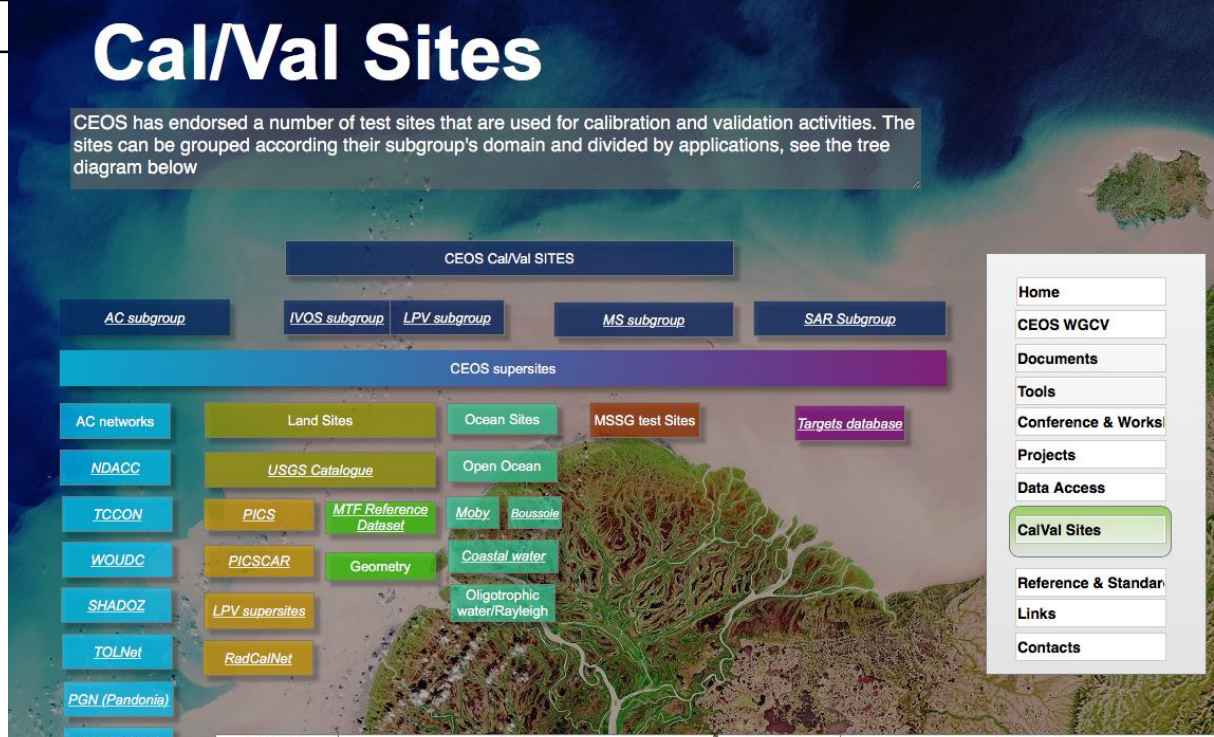
- CEOS LandNet Sites
- Calibration Test Sites
- Cryonet Sites
- RadCalNet Prototyping
- Radiometric Sites
- PICS



CEOS Cal/Val proposed re-shape

The Cal/Val sites page hosts references of the CEOS endorsed test sites according to subgroup's domain

New Action from WGCV-44!



Acronyms	Description
NDACC	Network for the Detection of Atmospheric Composition Change
TCCON	Total Carbon Column Observing Network
WOUDC	World Ozone and Ultraviolet Radiation Data Centre
SHADOZ	Southern Hemisphere ADditional OZonesondes
TOLNet	Tropospheric Ozone Lidar Network
PGN (Pandonia)	Pandonia Global Network
MAX-DOAS	Multi-AXis Differential Optical Absorption Spectroscopy
AERONET	Aerosol Robotic Network
GRUAN	The Global Climate Observing System (GCOS) Reference Upper-Air Network
EARLINET	European Aerosol Research Lidar Network

Acronyms	Description
USGS Catalogue	Test Sites Catalog: Radiometric, Geometric and Spatial Sites
PICS	Pseudo Invariant Calibration Sites
PICSCAR	The CEOS Initiative to better characterise the PICS
LPV	Land Product Validation
RadCalNet	Radiometric Calibration Network
Moby	Marine Optical BuoY
Boussole	BOUée pour l'acquiSition d'une Série Optique à Long termE

CEOS Cal/Val Portal – Current Status

The "**Projects**" section need a frequent update,

Reference to:
the Fiducial Reference Measurement (FRM) has been added
https://earth.esa.int/web/sppa/activities/frm

CEOS Cal/Val proposed re-shape

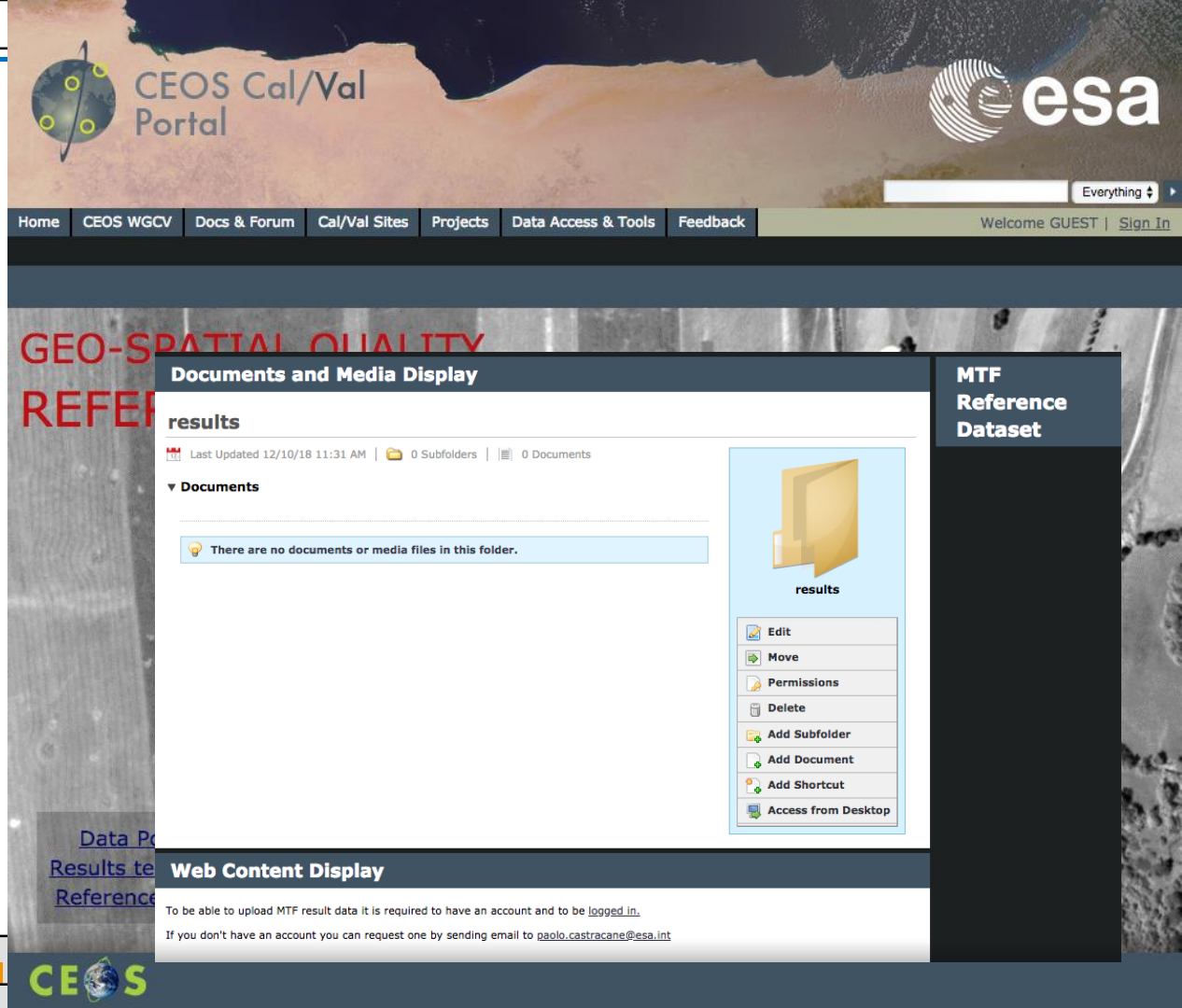
Projects includes relevant activities.
Fiducial Reference Measurement (FRM) projects will be included

QA4EO, MVT, ALTS, G-VAP, SnowPEX and ACIX are maintained

CEOS Cal/Val Portal - Current Status

"**Data Access & Tools**"

- Several links included in the "CalVal Software Tools" have been updated.
- [MTF Reference Dataset included recently]



CEOS Cal/Val Portal – Current Status

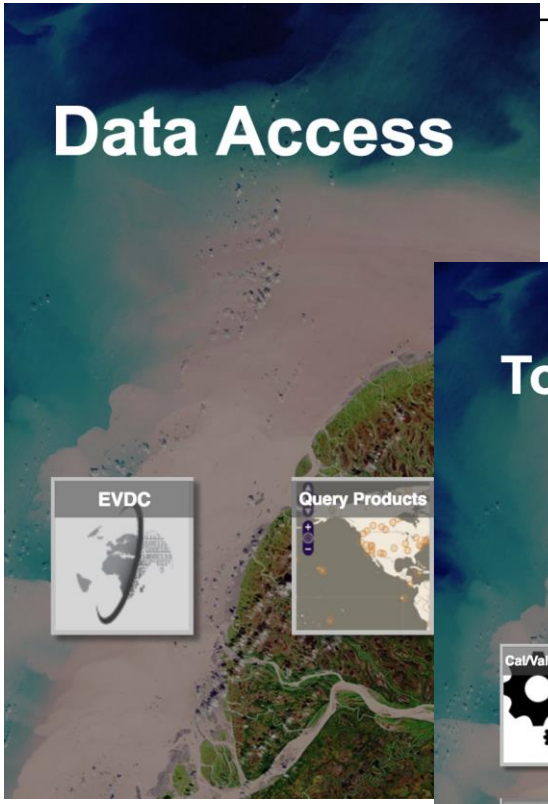
Clicking on "**Tools**" five submenu items are available as tools: DIMITRI, COVE, 6s input configuration, OLIVE and IMPETuS. Some links need an update

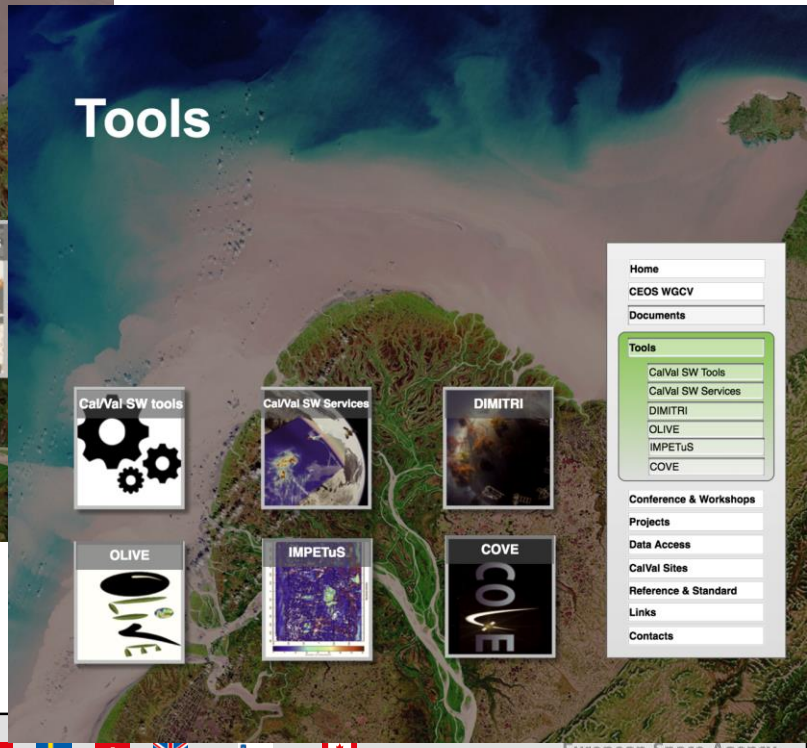
Regarding the OLIVE Tool, it would not have to be maintained online. Instead, the OLIVE code will be transitioned into open source format (either in Python and provisioned fully through github or similar interface), so that validation groups running their portals can get access to one single tool, endorsed by WGCV. The code, binaries files, and documentation, will be hosted at the CEOS Cal/Val portal; as well as links to institutions that have integrated the code into their own systems.

The OLIVE DIRECT 2.0 ground database has been recently made available on the portal

CEOS Cal/Val proposed re-shape

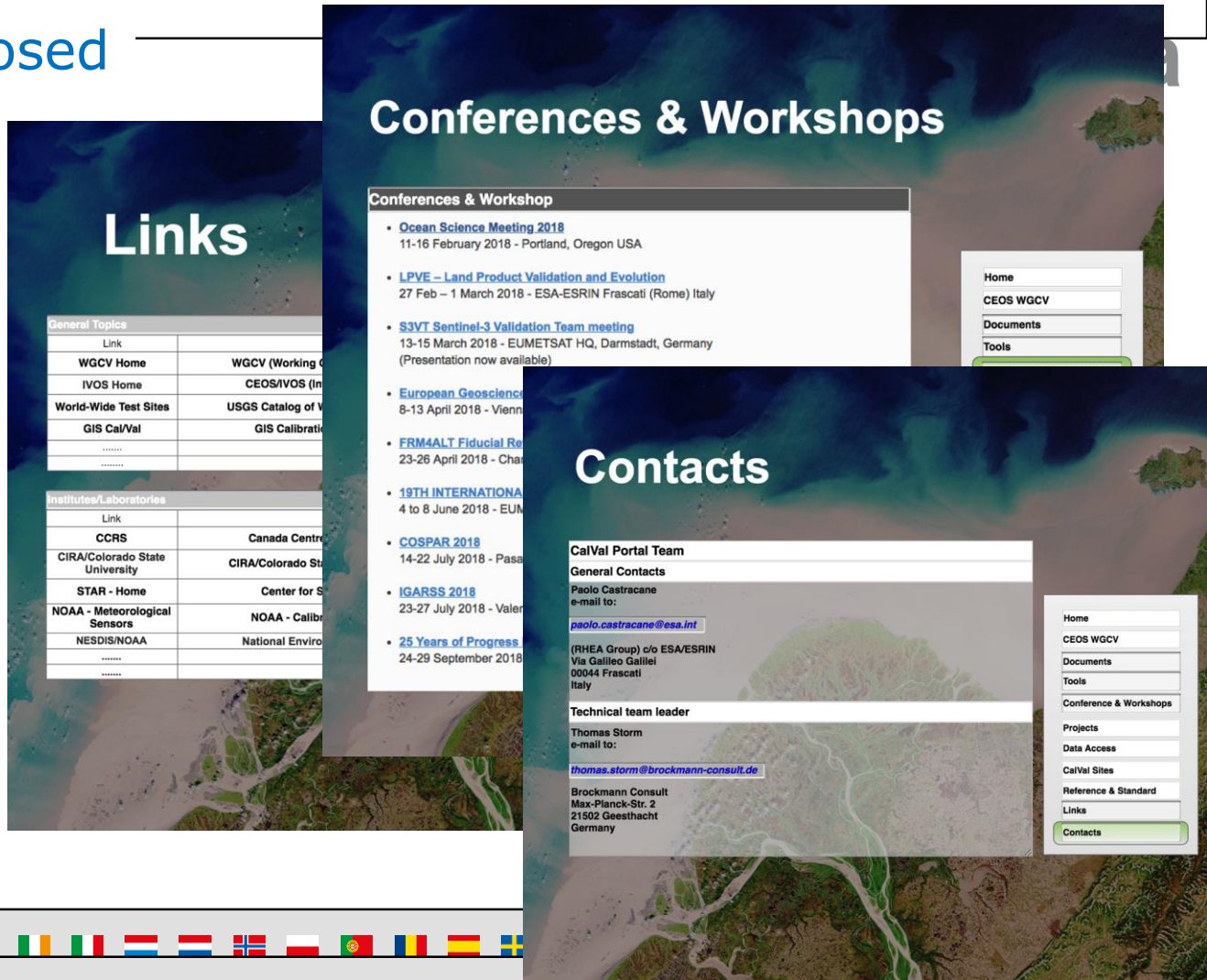
- "Data Access" and "Tools" will be two separated pages
- Data Access will be dedicated to all the significant CalVal data providers. The plan is to include the Products Query CalVal Portal and the EVDC (ESA Atmospheric Validation Data Centre)
- The page "Tools" will host relevant tools: e.g. DIMITRI, OLIVE, IMPETuS and COVE with the possibility to include new ones.





CEOS Cal/Val proposed re-shape

- Conferences & Workshops will provide a time ordered list for the relevant events with links to the official websites for conferences and workshops.
- The Links page will offers a substantial list of relevant links subdivided by topics.
- Contacts will include information on the web administrators for general and technical issues.



Conclusion

- For CEOS CalVal Portal two years Contract for Maintenance and Evolution has been signed on April 2018
- A detailed review on the Current CEOS CalVal portal has been performed exploring all the items contained in the web portal, this has driven to the definition of a number of Actions
- A Mock-up has been presented to define new site organization and graphic appearance.
- A test environment for the new portal has been prepared by Brockmann Consult, Home Page and CalVal Sites page are ready.
- Feedback from the CEOS community is expected, internal feedback is welcome.