

soil moisture
cci

climate change initiative

European Space Agency

Tracking the Use of ECV datasets

Richard de Jeu and rest of the CCI team

TU Wien: Wolfgang Wagner, Wouter Dorigo Daniel Chung, Christoph Reimer, Richard Kidd

VU University Amsterdam: Robert Parinussa, Robin van der Schalie

Geoville Information Systems GmbH: Eva Haas

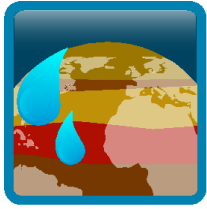
NILU: William Lahoz, Alexandra Griesfeller, Tove Svendby

University College Cork: Ned Dwyer, Brian Barrett, Chiara Pratola

FMI: Kimo Rautiainen, Tuomo Smolander

ETH: Heidi Mittelbach, Sonia Seneviratne, Martin Hirschi, Nadine Shaw

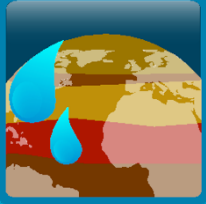
ESA ESCAT: Pascal Lecomte



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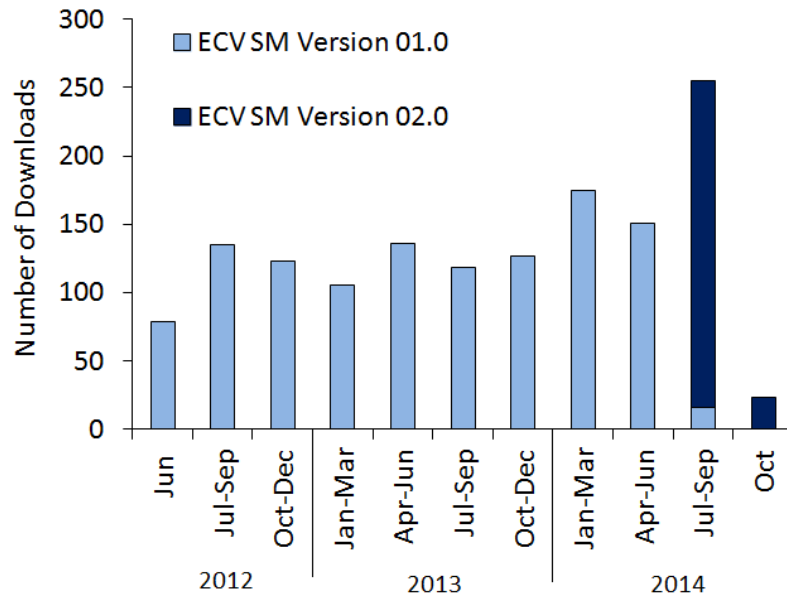
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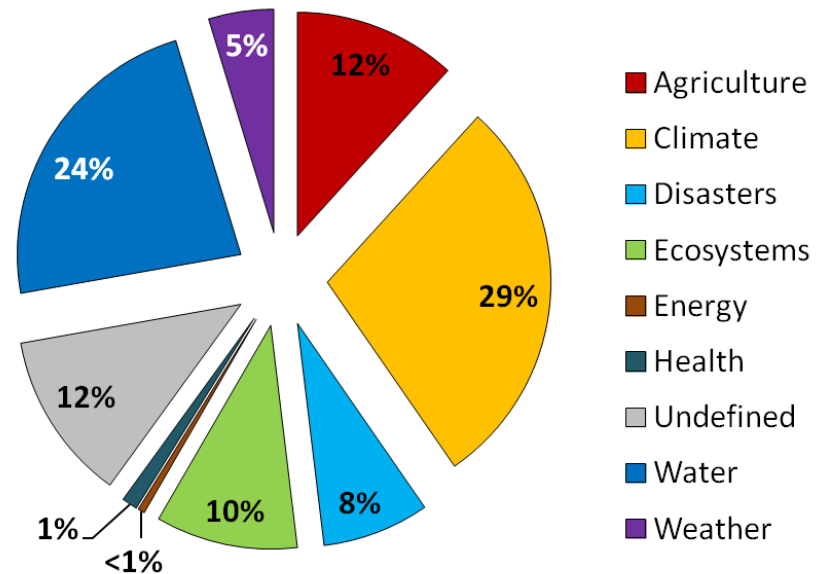


Tracking the use of ECV datasets: Analysing Registration information

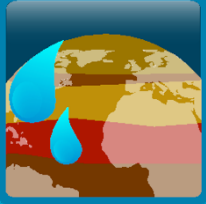
- Over 1300 users worldwide
- Users come equally from
 - Europe
 - North America
 - Asia
- Also commercial users



GEO Societal Benefit Areas



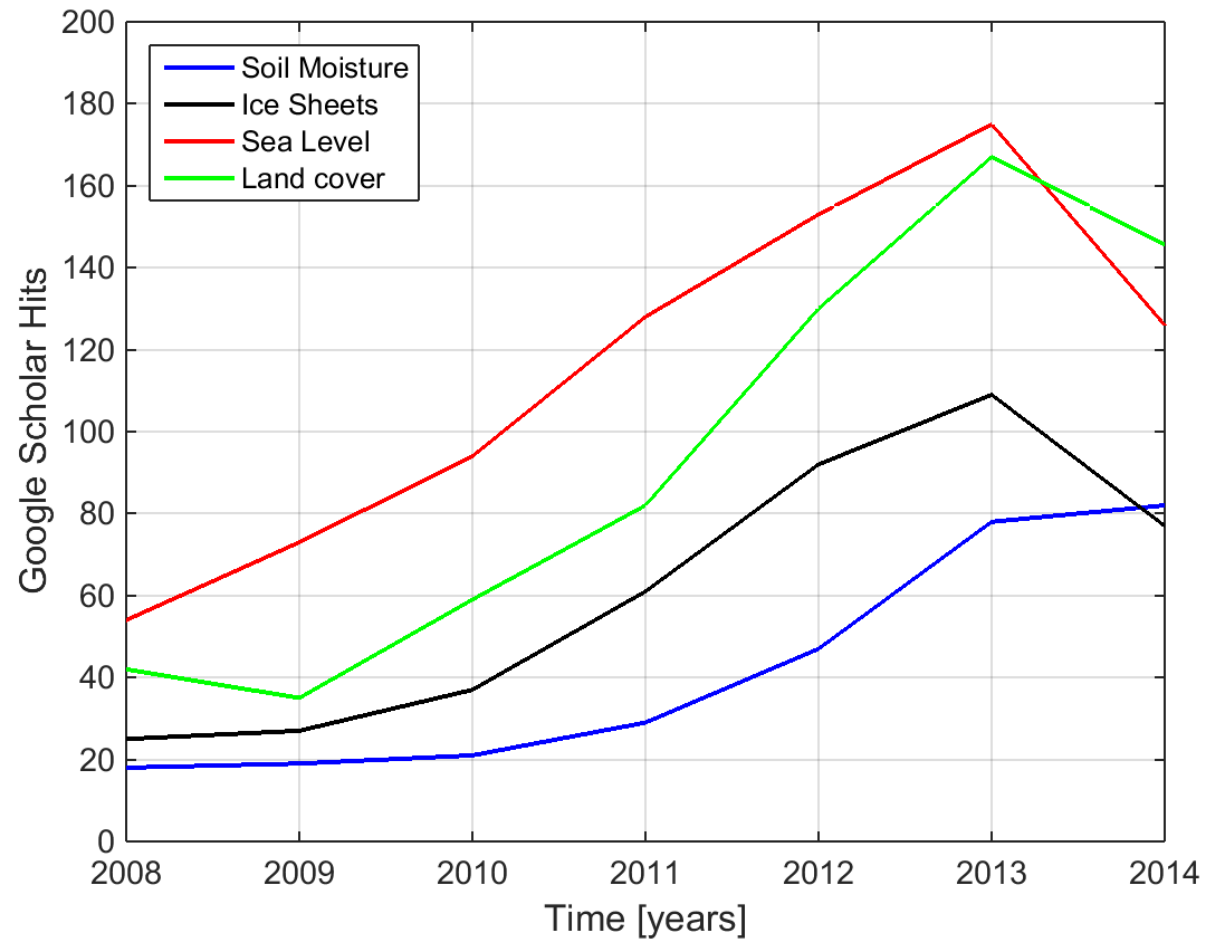
Download Statistics (as of 08.10.2014)

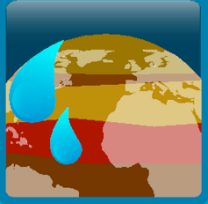


Tracking the use of ECV datasets: Analyzing Google Scholar Hits

Google Scholar
Search:

- ESA CCI
- [ECV]

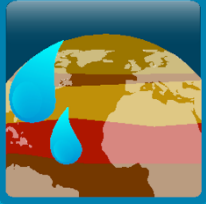




Tracking the use of ECV datasets: Why

Why do you want to know

- Impact
- Feedback
- Recognition



Tracking the use of ECV datasets: Traditional method



- Registration
- Data is linked to peer reviewed publication

Issues

- Publication can become outdated (and is often not linked to a particular data version)
- Publication is not always accessible for the users

Remote Sensing of Environment 123 (2012) 280–297

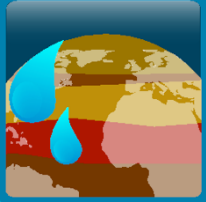
Contents lists available at SciVerse ScienceDirect

 **Remote Sensing of Environment** 

journal homepage: www.elsevier.com/locate/rse

Trend-preserving blending of passive and active microwave soil moisture retrievals

Y.Y. Liu ^{a,c,d,e,*}, W.A. Dorigo ^b, R.M. Parinussa ^c, R.A.M. de Jeu ^c, W. Wagner ^b, M.F. McCabe ^a, J.P. Evans ^d, A.I.J.M. van Dijk ^e

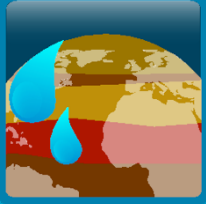


Tracking the use of ECV datasets: Doi's

Make Digital Object Identifiers (doi) for the ESA ECV datasets

How:

the dataset must be submitted to a “doi-issuing organization” (e.g. pangaea.de or the climate model data services (CDS) who are doing it for NASA climate data sets), which will guarantee the long-term access to the dataset (i.e. the dataset will be stored there for a long period)



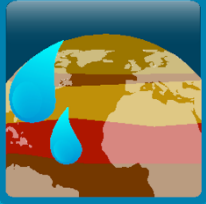
Tracking the use of ECV datasets: Doi's

Make Digital Object Identifiers (doi) for the ESA ECV datasets

Dataset + metadata will have a doi

Metadata:

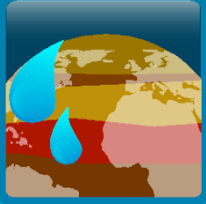
- Data description
- How to access the data
- Provider contact
- Summary (short name, version, format, spatial temporal coverage, resolution, and size)
- Link to documentation
- Description of variables



Tracking the use of ECV datasets: Doi's

Advantages

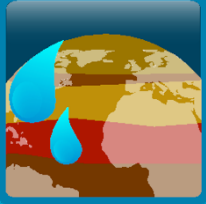
- Datasets are traceable (data + metadata)
- Doi is directly linked to a version of a dataset
- Doi is already well established in the publishing community
- A dataset with a doi give more thrust to the user community
- A dataset with a doi can easily be analyzed
- Other advanced data projects (e.g. CHARMe; yesterday talk Victoria Bennett) only use datasets with a doi
- A data doi is needed when you want to publish in a data journal (e.g. Earth System Science Data)



Tracking the use of ECV datasets: Doi's

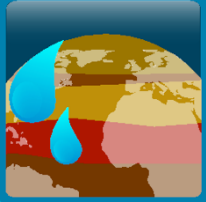
Discussion:

- Do we want doi's for the ECV datasets ?
- What “doi-issuing organization” would we then want to use ?
- What's the role of ESA here?



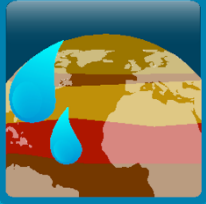
Meaning of Operational

- Meeting Service Level Agreements
- Complying with the URD
 - Meeting accuracy goals
- Different for every ECV
- Distinguish between data and service



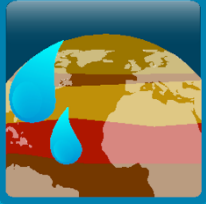
Key Criteria

- Potential Impact/added value of variable
- Well defined data sets and procedures for delivery and updating (incl. reviews)
 - Bates Maturity Matrix
- Ease of access
- Sustainability
 - Storing data in repositories
 - Strong science community
- Automatic processing lines
- Stable international cooperation network
- ~~Data set has a DOI~~
- ~~Number of users~~



Transition

- Copernicus Climate Services as a Key User
 - How do we meet the requirements?
 - Pro-actively link and partner with existing CCS precursor activities (e.g. CORE-CLIMAX) to ensure rapid take up of CCI products into the service
 - Can we deliver tomorrow (= after phase 2)
 - Can we be better than NASA products/unique selling position



- Aerosols: 17 years & quality
- Cloud: optimised retrieval and consistency
- Fire: small fire detection
- GHG: unique data sets, documentation
- Glaciers: Global team, standardisation
- Ice Sheets: European satellites & national funding
- Land Cover: consistency & epochs
- Ocean colour: novel methods, better coverage
- Ozone: high precision, unique altitude coverage
- Sea Ice: quality control. errors