



## CCI Soil Moisture User Workshop

18 September 2017 | TU Wien | Austria

## 4th Satellite Soil Moisture

## Validation and Application Workshop

19 - 20 September 2017 | TU Wien | Austria



VanderSat



## 6 years of ESA CCI Soil Moisture

- One of the 13 Essential Climate Variables covered by CCI programme (+9 in CCI+)
- Start in 2012 (following WACMOS precursor project)
- 5 dataset versions have been released so far in yearly intervals
- From January 2018 data will be available operationally through Copernicus Climate Change Service (C3S)

## This is already the 4th CCI workshop

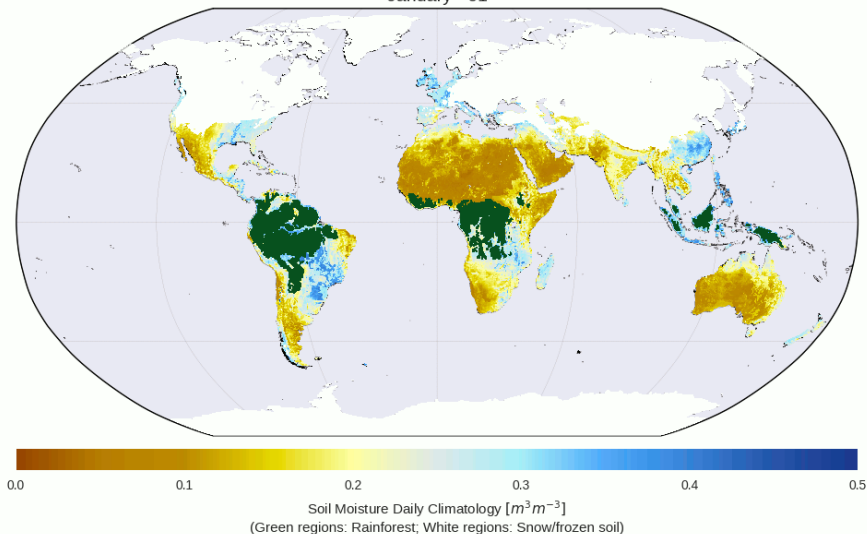
- 1st User workshop (Vienna, 2012)
- Round Robin workshop (Vienna, 2013)
- 2nd user workshop (ESTEC, 2016)
- 3rd user workshop (Vienna, 2017)





# Serving climate applications

January - 01



[Image credit: Daniel Chung]

ITALY (LON,LAT=12.50,43.00)



[Image credit: Luca Brocca]

## ITALY'S DROUGHT SEEN FROM SPACE



5 September 2017 Despite the welcome showers at the weekend, abnormally low soil-moisture conditions persist in central Italy. Scientists are using satellite data to monitor the drought that has gripped the country.

Wildfires, water scarcity and billions of euros worth of damage to agriculture are just some of the effects of this summer's drought in Italy – not to mention the relentless heat. News of

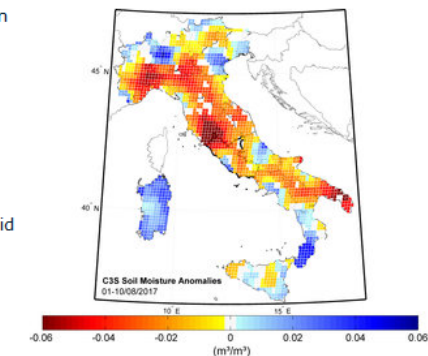
potential water rationing in the capital have even made headlines worldwide.

As local authorities work to mitigate the drought, scientists are turning their eyes to the sky for answers.

Satellite data on soil moisture show that soils in southern Tuscany have been drier than normal since December 2016. Even though drier than normal conditions occur regularly, the current situation is uniquely intense and persistent, similar to the droughts in 2007 and 2012.

"In the first six months of 2017, we saw less than half of average rainfall in central Italy," said Luca Brocca from Italy's Research Institute for Geo-Hydrological Protection, of the National Research Council (IRPI-CNR).

"The combination of low rainfall and high temperatures has led to drought, and we will need a significant amount of rainfall to replenish the water lost in the last eight months."



August 2017 soil moisture anomalies



# Goals of the ESA CCI Soil Moisture workshop

## What we would like to *share with you*

- Characteristics of ESA CCI SM
- Strengths and shortcomings
- How people have used our data
- Our ideas on how to improve the products

## What we would like to *know from you*

- How have you used the products?
- Has it helped you and how?
- What should receive highest priority in future releases?



## 18 September 2017 – CCI Soil Moisture Workshop

|             |                     |  |
|-------------|---------------------|--|
| 09:00–10:30 | Oral Session 1      | CCI Data Characteristics and Validation                          |
| 10:30–11:00 | Coffee Break        |  |
| 11:00–12:30 | Oral Session 2      | CCI for Advancing Earth System Sciences                          |
| 12:30–13:30 | Lunch Break         |  |
| 13:30–15:00 | Oral Session 3      | Potential Improvements   |
| 15:00–15:30 | Coffee Break        |  |
| 15:30–16:30 | Discussion          | What are the priorities for soil moisture climate data services? |
| 16:30–17:00 | Short Presentations | of Posters on Display in Poster Session                          |
| 17:00–19:00 | Poster Session 1    | and Ice Breaker Satellite Soil Moisture Workshop                 |

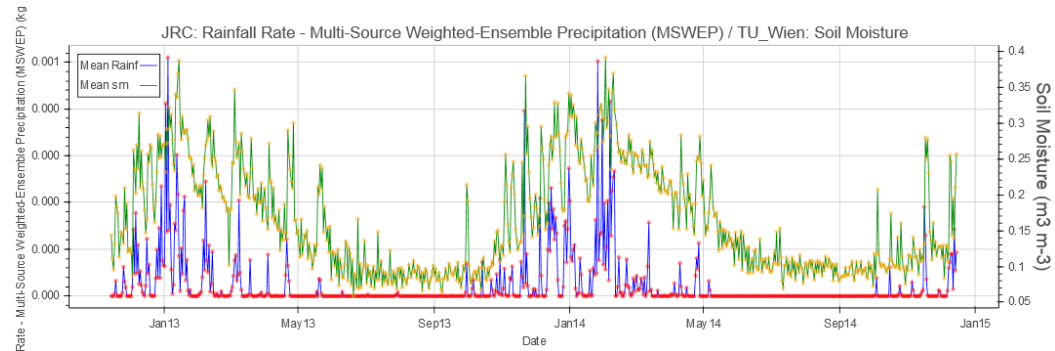
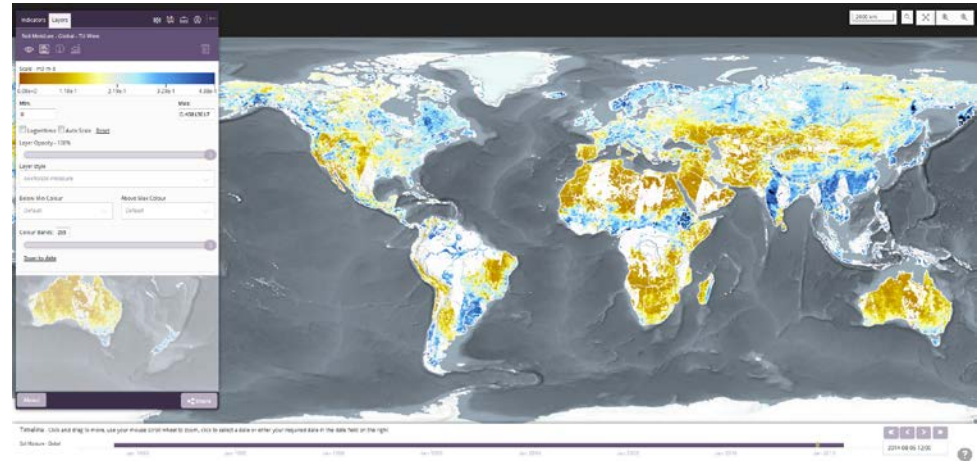




# Entertainment in the breaks

## Booths for more info on:

- VanderSat products
- Details about CCI Soil Moisture
- Soil moisture products of TU Wien





## „Retrieval, Validation and Application of Satellite Soil Moisture Data“

**Deadline** for manuscript submissions: 20 November 2017

### Selected topics

- What is the quality of the current satellite products and what can we expect in the near future?
- What is information content at Level 1 and how to exploit the availability of multiple satellites?
- Who is using satellite soil moisture data and for what purpose?
- What are the best practices in validating soil moisture products?
- What are the main limitations of satellite soil moisture data from a user's perspective?
- What is the future of satellite-based soil moisture remote sensing?

**More info** [http://www.mdpi.com/journal/remotesensing/special\\_issues/soilmoisture](http://www.mdpi.com/journal/remotesensing/special_issues/soilmoisture)

