New webpage, new blog, new products, new times!

This is the first post in the new CP34 BEC blog.

The **SMOS Barcelona Expert Center (BEC)** is an ESA Expert Support Laboratory for the Soil Moisture and Ocean Salinity (SMOS) mission, an innovative Earth Observation satellite devoted to the remote sensing of soil moisture over land and sea surface salinity over the oceans. This is the first time that both variables are measured by a single spaceborne instrument.

The SMOS single payload consists of the Microwave Imaging Radiometer using Aperture Synthesis (MIRAS), a L-band interferometric radiometer. This new instrument allows taking the maximum profit from the capabilities of L-band to infer the geophysical variables of interest, but it is also a very challenging device, requiring sophisticated calibration, correction, pre- and post-processing algorithms. As an ESA ESL, the main commitment of BEC is to develop and test new algorithms to improve the quality of SMOS Level 2 products. However, the goal of BEC is also to generate higher added-value products of interest for a broad range of users. This led to the creation of **CP34** as **a dedicated production center for SMOS Level 3 and Level 4 products** a few years ago. Since the beginning of the mission, CP34 has provided L3 products for sea surface salinity and soil moisture in an operational way.

With the accomplishment of the first three years of the SMOS mission, **BEC goals have been revisited and redefined.** It has been recognized that the limited quality of the present geophysical products has deterred the desired broad distribution of SMOS products. Henceforth, it has been decided

to increase the efforts in the final, higher end of the chain value, which has profound implications for CP34.

With its new mission, **CP34 now prioritizes the distribution of potentially high-value research products in an attempt to meet users' demands**. From now on, the focus is on specific high quality products rather than on standardized operational products. Product inventories will be kept up to date, but new products will be continuously explored and communicated to the scientific community and stakeholders. Such products will go beyond SMOS, including other (current and future) satellite data exploitation. The changes in data distribution will be gradual until a new configuration is reached.

We are living new and exciting times in this new and exciting mission. Join us in this journey!

The BEC Team