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1 INTRODUCTION

1.1 Purpose and Structure of the Document

The present document describes the Opportunity to conduct scientific research and application development exploiting SMOS data.
Chapter 1 outlines the purpose of this document, explains its structure and provides lists of relevant documentation and abbreviations;
Chapter 2 illustrates the Opportunity, including conditions and objectives;
Chapter 3 outlines the SMOS mission, status and sensors
Chapter 4 provides an overview of the other missions and sensors whose products are offered through this Announcement of Opportunity;
Chapter 5 illustrates the evaluation procedures;
Chapter 6 provides an overview of the Schedule of the Announcement of Opportunity.

1.2 Applicable Documents

[A1] The Envisat Data Policy MMO-POL-0003-EOAD: ENVISAT Data Policy (http://eopi.esa.int/doc/download/envisat_data.pdf)
[A2] Earth Explorer Data Policy: Update for GOCE and SMOS ESA/PB-EO(2006)35 (http://eopi.esa.int/esa/esa?type=file&ts=1173279927158&table=aotarget&cmd=image&id=1420).
[A3] SMOS Announcement of Opportunity (AO) ESA/PB-EO(2007)16
[A4] Terms and Conditions for the use of ESA Category-1 data (http://eopi.esa.int/esa/ao?type=file&ts=1172746779253&table=aotarget&cmd=image&id=1545)

1.3 Reference Documents

[R1] The Changing Earth - New Scientific Challenges for ESA's Living Planet Programme, ESA SP-1304 (http://esamultimedia.esa.int/docs/SP-1304.pdf)
[R2] Guidelines for the submission of SMOS data AO proposals (http://eopi.esa.int/esa/ao?type=file&ts=1173975459915&table=aotarget&cmd=image&id=1560)

1.4 List of Acronyms

AATSR: Advanced Along Track Scanning Radiometer
ATSR: Along Track Scanning Radiometer
ADEN: ALOS Data European Node
AO: Announcement of Opportunity
ALOS: Advanced Land Observing Satellite

ASAR:	Advanced Synthetic Aperture Radar
AVNIR-2:	Advanced Visible and Near Infrared Radiometer type 2
BUFR:	Binary Universal Form for the Representation
Category-1:	Defined by ESA Data Policy as "Research and applications development use in support of the mission objectives, including research on long term issues of Earth System science, research and development in preparation for future operational use, certification of receiving stations as part of the ESA functions, and ESA internal use"
ENVISAT:	ENVIronment SATellite
EO	Earth Observation
ERS:	European Remote Sensing Satellite
ESA:	European Space Agency
GMES	Global Monitoring for Environment and Security
GOCE	Gravity field and steady-state Ocean Circulation Explorer
GOME:	Global Ozone Monitoring Experiment
GOMOS:	Global Ozone Monitoring by Occultation of Stars
ISEA:	Icosahedral Snyder Equal Area
MERIS:	MEdium Resolution Imaging Specrometer Instrument
MIPAS:	Michelson Interferometer for Passive Atmospheric Sounding
MIRAS:	Microwave Imaging Radiometer using Aperture Synthesis
MWR:	MicroWave Radiometer
NRT:	Near Real Time
PALSAR:	Phased Array type L-band Synthetic Aperture Radar
PI:	Principal Investigator
PRISM:	Panchromatic Remote sensing Instrument for Stereo Mapping
RA:	Radar Altimeter
SAR:	Synthetic Aperture Radar
SCIAMACHY:	SCanning Imaging Absorption SpectroMeter for Atmospheric CHartographY
SMOS	Soil Moisture and Ocean Salinity Mission
TPM:	Third Party Mission
WS:	Wind Scatterometer

2 DESCRIPTION OF THE OPPORTUNITY

2.1 General conditions of the Opportunity

The European Space Agency (ESA) announces the opportunity to conduct research and applications development exploitating SMOS standard data products in conjunction with data from other missions.

The Call is open to Principal Investigators (PI)s worldwide.

Proposals should be submitted for evaluation via the dedicated Web site (http://eopi.esa.int/SMOS).

The submission deadline is on 1 June 2007

ESA may decide to select only a portion of the proposer's investigation, in which case the investigator will be given the opportunity to accept or decline such partial acceptance.

Following approval of the proposed project by ESA, Principal Investigators will be requested to sign the "Terms and Conditions for the Utilisation of Data under the ESA Category-1 scheme".

Access to the SMOS calibrated and validated Level 1, Level 2 and NRT-meteo products and the necessary ESA EO data sets to execute the projects will then be provided to the selected Principal Investigators free of charge within the limits of the quota assigned to the proposal and (for the requested ESA Third Party Mission data) within TPM data access agreement and data availability.

The progress and accomplishments of the selected projects will be monitored by ESA. All selected Principal Investigators will be required to submit periodic progress reports or publications via the Earth Observation PI Portal Website (http://eopi.esa.int) describing the status of their project and to prepare a final report in English at the end of the project period. PIs shall also present their results at a limited number of specialised workshops or symposia organised by ESA.

Selected projects will not be funded by ESA.

2.2 Objectives of the Opportunity

The Opportunity aims at promoting the use of the Soil Moisture and Ocean Salinity (SMOS) Mission data, in combination with ESA EO and TPM data.

SMOS products together with synergistic information provided by complementary systems are relevant for a wide range of disciplines spanning from hydrology, oceanography, climate research, cryosphere, to application fields related to the forecasting of extreme events and natural hazards

including the benefit for improving weather prediction by constraining the soil-vegetation-atmosphere transfer schemes used in numerical weather prediction models

The following objectives shall be addressed through the SMOS Data AO:

2.2.1 EXPLOITATION OF SMOS SPECIFIC OBSERVATION CAPABILITIES

2.2.1.1 Soil moisture

- Support water resource management by improving mesoscale hydrological models through root zone soil moisture and its temporal evolution assimilated from SMOS data.
- Improve soil-vegetation-transfer schemes and their representation in numerical weather prediction models in order to improve the forecast skills including assimilation of SMOS NRT Meteo-products.
- Forecast, detect and assess extreme events and geohazards as well as improve the understanding of the underlying processes (droughts, land degradation, floods, landslides, fire risks, pest habitat detection etc.).

2.2.1.2 Ocean salinity

- Improve ocean circulation models by constraining the models with SMOS data and the integration of SMOS NRT Meteo-products into assimilation schemes.
- Develop comprehensive seasonal ocean salinity climatology in conjunction with ARGO in-situ data. - Improve seasonal to inter-annual climate predictions by improving e.g. the ENSO (El Niño Southern Oscillation) forecast skills.
- Analyse SMOS ocean salinity data for its use to constrain the global ocean evaporation minus precipitation balance.
- Improve the capability of monitoring large-scale salinity events, as ice melt, major river runoff events, or monsoons

2.2.1.3 Cryosphere

- Analyse SMOS brightness temperature data to improve the characterisation of terrestrial ice and snow covered areas.
- Analyse SMOS brightness temperature data to discriminate between ice and ocean and to improve the characterisation of sea-ice covered areas.

2.2.1.4 Climate

- Analyse SMOS data for its use to improve CO2 modelling (freeze, thaw conditions, monitoring plant CO2 assimilation and plant growth by the available root zone soil moisture, CO2 uptake/release over oceans).

- Analyse seasonal and inter-annual variability of ocean salinity and soil moisture patterns including 'hot spots' as tracers for assessing potential impacts of climate change.

2.2.1.5 For all observations

- Analyse the SMOS products and exploit synergies with other sensors (e.g. METOP-ASCAT, ALOS L-Band PALSAR, ASAR Global Monitoring Mode., etc.) for various applications (e.g. regional hydrology, coastal monitoring, etc.).
- Analyse the use of SMOS NRT Meteo-products in preparation for future operational missions

2.2.2 ESA'S LIVING PLANET KEY SCIENTIFIC CHALLENGES

Proposals are solicited exploiting SMOS data to address the following scientific challenges over oceans, atmosphere, cryosphere and land surface.

2.2.2.1 Oceans

- Quantify the interaction between variability in ocean dynamics, thermohaline circulation, sea level and climate
- Understand physical and bio-chemical air/sea interaction processes.

2.2.2.2 Atmosphere

- Understand and quantify the natural variability and the human-induced changes in the Earth's climate system.
- Contribute to sustainable development through interdisciplinary research on climate circulation patterns and extreme events.

2.2.2.3 Cryosphere

- Quantify the distribution of sea-ice mass and freshwater equivalent, assess the sensitivity of sea ice to climate, and understand thermodynamic feedbacks to the ocean and atmosphere.
- Understand the role of snow and glaciers in influencing the global water cycle and regional water resources, identify links to the atmosphere, and assess likely future trends.
- Quantify the influence of ice shelves, high-latitude river run-off and land ice melt on global thermohaline circulation, and understand the sensitivity of each of these fresh-water sources to future climate change.
- Quantify current changes taking place in permafrost and frozen-ground regimes, understand their feedback to other components of the climate system, and evaluate their sensitivity to future climate forcing.

2.2.2.4 Land Surface

- Understand the role of terrestrial ecosystems and their interaction with other components of the Earth System for the exchange of water, carbon and energy.

- Understand the interactions between biological diversity, climate variability and key ecosystem characteristics and processes, such as productivity, structure, nutrient cycling, water redistribution and vulnerability.

2.3 Requests of information concerning the AO

Further information regarding this Announcement may be found on the Web site dedicated to the "Announcement of Opportunity (AO) for the exploitation of SMOS Data" (http://eopi.esa.int/SMOS) and can also be obtained from the ESA ESRIN EO Help and Order Desk (E- mail: eohelp@esa.int; Tel: +39 06 94180777; Fax: +39 06 94180272).

3 DESCRIPTION OF SMOS MISSION

3.1 Mission Overview

The Soil Moisture and Ocean Salinity (SMOS) mission is ESA's second Earth Explorer Opportunity Mission, implemented in cooperation with France (CNES) and Spain (CDTI).

SMOS launch is scheduled for mid 2008.

The mission has the objectives to advance knowledge of the water cycle, its dynamics and the possible impact of climate change. SMOS will exploit an innovative instrument designed as a two-dimensional interferometer for acquiring brightness temperature observations at L-band (1.4 GHz) globally for the estimation of soil moisture and ocean salinity.

Soil moisture and ocean salinity are key variables used in weather, climate and extreme-event forecasting. The mission should also provide information on root zone soil moisture and provide a mean to monitor the global vegetation through the optical thickness which is mainly related to the vegetation water content and provided as a side product by the SMOS soil moisture retrieval. As a secondary objective data acquired by SMOS over ice/snow regions may prove useful to characterize the ice and snow layers and thus complement other satellite observations to advance the science of the cryosphere.

3.2 Payload overview

SMOS will measure microwave radiation emitted from the Earth's surface at L-band (1.4 GHz) using an interferometric radiometer, operating between 1400-1427 MHz (L-band).

- **Microwave Imaging Radiometer using Aperture Synthesis (MIRAS).** It operates in L-band and exploits the interferometry principle, which by way of 69 small receivers will measure the phase difference of incident radiation. The technique is based on cross-correlation of observations from all possible combinations of receiver pairs. A two-dimensional 'measurement image' is taken every 1.2 seconds. As the satellite moves along its orbital path each observed area is seen under various viewing angles. From an altitude of 763 km, the antenna will view an area of almost 3000 km in diameter. However, due to the interferometry principle and the Y-shaped antenna, the field of view is limited to a hexagon-like shape about 1000 km across called the 'alias-free zone'. This area corresponds to observations where there is no ambiguity in the phase-difference.

3.3 Products and data overview

The following Calibrated and Validated SMOS Mission Data Science Products will be made available within this AO.

3.3.1 SMOS LEVEL 1 DATA PRODUCTS

SMOS Level 1 Data Products form a "family" of products that include: Instrument Telemetry Products, Calibration Products, Science Products, and supporting auxiliary data. The following Science Products will be made available within this AO:

3.3.1.1 Level 1B: Dual (MIR_SC_D1B) or Full (MIR_SC_F1B) Polarization

These products are obtained by processing the Level 1A calibrated visibility function measured by the MIRAS Instrument. The main processing steps are the correction for external sources (Sun, Moon, Galactic noise) and the image reconstruction. The scientific content of the L1B data are the Fourier Components of the reconstructed image of the Brightness Temperature on the antenna plane. The product is organized as a series of "snapshots" ordered by time stamp. Depending on the MIRAS operational mode this product is available as:

- *Dual* (one snapshot containing Fourier components for H or V polarization) or
- *Full* (one snapshot containing Fourier components for H or V or HV polarization). These products are arranged on a pole-to-pole time interval such that ascending and descending passes appear as separate products.

3.3.1.2 Level 1C:Dual (MIR_SCSD1C, MIR_SCLD1C) or Full (MIR_SCSF1C, MIR_SCLF1C) Polarization

These products are obtained by processing the Level 1B products described above. The main processing steps are the inverse Fourier Transformation of the Brightness Temperature components, the apodisation and the geo-location. The scientific content of the Level 1C data is organized as a swath-based Brightness Temperature maps where the geo-localization of each pixel is on a fixed ISEA 4-9 grid.

- For *Dual* products each pixel contains the Brightness Temperature at different incidence angle for H and V polarization.
- For the *Full* product is also added the HV Brightness Temperature (real and imaginary). Rotation of the Brightness Temperature due to the acquisition geometry and geophysical correction are included in the product but not applied therefore the Brightness Temperature is provided at the top of the atmosphere (ToA).

Products (*Dual* and *Full*) are provided in two different types:

- *Land* (MIR_SCLD1C, MIR_SCLF1C) and
- *Sea* (MIR_SCSD1C, MIR_SCSF1C).

A filter mask is used in the ground processing to select which pixels will appear in each of the *Land* and the *Sea* products with many pixels expected to appear in both. *Sea* and *Land* products can be processed with different apodisation windows although the current baseline is that they will

use the same. As for Level 1B, these products are arranged on a pole-to-pole time interval such that ascending and descending passes appear as separate products.

3.3.1.3 Level 1C Browse: Dual (MIR_BWSD1C, MIR_BWLD1C) or Full (MIR_BWSF1C, MIR_BWLF1C) Polarization

These products are obtained by interpolating the Brightness Temperature (ToA) of the Level 1C products at an incidence angle of 42.5°. The Browse products are organised as per the Level 1C Science products described above.

3.3.2 SMOS LEVEL 2 DATA PRODUCTS

SMOS Level 2 Data Products form a "family" of products that include: Analysis Products, Science Products, and supporting auxiliary data. The following Science Products will be made available within this AO:

3.3.2.1 Level 2A Surface Brightness Temperature Science Data

This product is still in the definition phase. These products are obtained by transforming the Brightness Temperature (ToA) of the Level 1C products to the surface and applying the necessary geometry and geophysical corrections. Products are expected to be organised as per the Level 1C products described above.

3.3.2.2 Level 2 Soil Moisture Science Data (MIR_SMUDP2)

This product is obtained by processing the Level 1C *Land* product described above. The algorithm used is based on an iterative approach, whose aim is to find the best vegetation characteristics and soil moisture parameters by minimizing the differences between the modelled direct and the measured Brightness Temperature data. As for Level 1C, these products are arranged on a pole-to-pole basis such that ascending and descending passes appear as separate products. The main parameters stored for each pixel are Soil Moisture, the Nadir Optical Thickness estimate for the vegetation layer, the Surface Equivalent Temperature, the Dielectric Constant, and the Scattering Albedo. These parameters appear in the product with their associated *a posteriori* variance.

3.3.2.3 Level 2 Ocean Salinity Science Data (MIR_OSUDP2)

This product is obtained by processing the Level 1C *Sea* product described above. The algorithm used is based on an iterative approach, whose aim is to find the best atmospheric and sea surface parameters by minimizing the differences between the modelled direct and the measured Brightness Temperature data. As for Level 1C, these products are arranged on a pole-to-pole basis such that ascending and descending passes appear as separate products. The main parameters stored for each pixel are Sea Surface Salinity and Equivalent Neutral Wind Speed. These parameters appear in the product with their associated *a posteriori* variance.

3.3.3 NRT-METEO SMOS DATA PRODUCTS

The SMOS Near Real Time (NRT) service is still in the definition phase. Two products are expected to be available from this service. The first product is expected to very similar to the Level 1C products in terms of scientific content and format except that all non-essential information will be removed. The second product will be a transformation of the first product into BUFR (Binary Universal Form for the Representation of Meteorological Data) format and remove non-usable pixels. These products are to be obtained by following an algorithm expected to be little changed versus that used to derive the Level 1C products. Unlike Level 1C, these products will be provided on a time interval corresponding to the acquisition of the data by the ground stations.

4 OVERVIEW OF AVAILABLE EO DATA

Data provided by the instruments onboard the following EO missions, might be made available to the PIs

4.1 ERS

Products derived from the following instruments onboard the the ERS-1 and ERS-2 satellites respectively launched in 1991 and 1995 can be made available to this opportunity:

- **Active Microwave Instrument (AMI).** It operates in C-band (5.3 GHz) and combines the functions of a *Synthetic Aperture Radar (SAR)* and a *Wind Scatterometer (WS)*. Through its set of four antennae (three for the Scatterometer and one for the SAR), the Earth's surface is illuminated and the backscattered energy is received to produce data on wind fields and wave spectra, and to prepare high resolution images. Three modes of operation are possible: the image mode (SAR), the wave mode (SAR) and the wind mode (WS).
- **Along Track Scanning Radiometer (ATSR)**. It consists of two instruments, an Infra-Red Radiometer (IRR) and a Microwave Sounder (MWS). On board ERS-1 the IRR is a four-channel infra-red radiometer used for measuring sea-surface temperatures (SST) and cloud-top temperatures, whereas on board ERS-2 the IRR is equipped with additional visible channels for vegetation monitoring. The MWS is a two channel passive radiometer.
- **Radar Altimeter (RA).** It is a Ku-band (13.8 GHz) nadir-pointing active microwave sensor designed to measure the time return echoes from ocean and ice surfaces. Functioning in one of two operational modes (ocean or ice) the Radar Altimeter provides information on significant wave height; surface wind speed; sea surface elevation, which relates to ocean currents, the surface geoid and tides; and various parameters over sea ice and ice sheets.
- **Global Ozone Monitoring Experiment (GOME).** It is a nadir-scanning ultraviolet and visible spectrometer for global monitoring of atmospheric Ozone on-board ERS-2. A key feature of GOME is its ability to detect other chemically active atmospheric trace-gases as well as aerosol distribution.

A detailed description of available ERS data products and dissemination media is provided at the address:
http://earth.esa.int/ers/eeo4.10077/

4.2 ENVISAT

Products derived from the following instruments onboard the ENVISAT satellite, in orbit since 1st March 2002, can be made available to this opportunity:

- **MEdium Resolution Imaging Specrometer Instrument (MERIS).** It measures the solar radiation reflected by the Earth, at a ground spatial resolution of 300m and

1200m, in 15 spectral bands, programmable in width and position, in the visible and near infra-red. It allows global coverage of the Earth in 3 days.

- **Advanced Synthetic Aperture Radar (ASAR)** It operates at C-band and ensures continuity with the image mode (SAR) and the wave mode of the ERS-1/2 AMI. It features enhanced capability in terms of coverage, range of incidence angles, polarisation, and modes of operation. This enhanced capability is provided by significant differences in the instrument design: a full active array antenna equipped with distributed transmit/receive modules which provides distinct transmit and receive beams, a digital waveform generation for pulse "chirp" generation, a block adaptive quantisation scheme, and a ScanSAR mode of operation by beam scanning in elevation.
- **Advanced Along Track Scanning Radiometer (AATSR)**. Its main goal is to establish continuity of the ATSR-1 and ATSR-2 data sets of precise sea surface temperature (SST), thereby ensuring the production of a unique 10 year near-continuous data set at the levels of accuracy required (0.3 K or better) for climate research and for the community of operational as well as scientific users who will have been developed through the ERS-1 and ERS-2 missions.
- **Radar Altimeter 2 (RA-2).** It is an instrument for determining the two-way delay of the radar echo from the Earth's surface to a very high precision: less than a nanosecond. It also measures the power and the shape of the reflected radar pulses. Its measurements are used to determine the ocean topography, to map and monitor sea ice, polar ice sheets, and most land surfaces. Measurement of the radar echo power and shape enables the determination of wind speed and significant wave height at sea, thus supporting weather and sea state forecasting
- **Michelson Interferometer for Passive Atmospheric Sounding (MIPAS).** It is a Fourier transform spectrometer for the measurement of high-resolution gaseous emission spectra at the Earth's limb. It operates in the near to mid infrared where many of the atmospheric trace-gases playing a major role in atmospheric chemistry have important emission features
- **Global Ozone Monitoring by Occultation of Stars (GOMOS).** It is the newest ESA instrument aiming at ozone monitoring. It is a tool to provide altitude-resolved global ozone mapping and trend monitoring with very high accuracy, as needed for the understanding of ozone chemistry and for model validation.
- **SCanning Imaging Absorption SpectroMeter for Atmospheric CHartographY (SCIAMACHY)**. Its primary mission objective is to perform global measurements of trace gases in the troposphere and in the stratosphere

No restrictions are envisaged for those instruments providing a systematic flow of data and available on-line (MERIS Reduced Resolution, AATSR, RA-2, ASAR Global Monitoring Mode). For ASAR, SMOS Data AO PIs will have access either to recent or archived ASAR data, within a quota of products compatible both with the project needs and the ESA production capacity.

A detailed description of available ENVISAT data products and dissemination media is provided at the address:
http://envisat.esa.int/dataproducts/

4.3 GOCE

The Gravity Field and Steady-State Ocean Circulation Explorer (GOCE) is dedicated to measuring the Earth's gravity field and modelling the geoid with extremely high accuracy and spatial resolution. Products derived from the following instrument onboard the GOCE satellite, planned for launch in 2007, could be made available to this opportunity:

- **Gradiometer** It will measure gravity gradients in all spatial directions. The measured signal is the difference in gravitational acceleration at the test-mass location inside the spacecraft caused by gravity anomalies from attracting masses of the Earth.

More information about the GOCE mission is available at the address:
http://www.esa.int/esaLP/ESAYEK1VMOC_LPgoce_0.html

4.4 ALOS

The following three instruments carried by ALOS will produce data products offered within this Announcement, within the ALOS ADEN zone (Europe, Africa, Middle East):

- ***Panchromatic Remote-Sensing Instrument for Stereo Mapping (PRISM).*** It is a panchromatic radiometer with 2.5-meter spatial resolution. It has three telescopes for forward, nadir and backward views enabling DEM generation with accuracy sufficient for 1/25,000 scale maps.
- ***Advanced Visible and Near Infrared Radiometer type 2 (AVNIR-2.)*** This instrument is suited to land and coastal observation and can provide land cover and land use information maps for monitoring regional environments. The instrument also has a cross-track pointing function for disaster monitoring.
- ***Phased Array type L-band Synthetic Aperture Radar (PALSAR).*** It is an active microwave sensor which enables all-weather, 24-hours observations. The sensor has a steerable beam in elevation and the ScanSAR mode, which allows to obtain a wider swath than conventional SARs. PALSAR has also fully polarimetric capabilities

ALOS data will be made available from the ADEN archive resulting from the baseline observation data as received offline from JAXA, plus additional data resulting from X-band downlink at ADEN stations. Both archived and new data will be made available to SMOS Data AO PIs. Furthermore, data from the Common Zone (Antarctica) can be made available to SMOS AO PIs, as well as a limited quantity of out-of-zone data, according to rules set up by JAXA.

More information about the ALOS mission, the instruments and the geographic restrictions to the data is available via the web page: http://eopi.esa.int/ALOS

4.5 Other Third Party Mission data

Other relevant Third Party Mission (TPM) data, either archived or newly available at the time, will contribute to the SMOS Data AO. Those contributions will respect related Data Access

Agreements and associated partial limitations (e.g. geographical, user nationality or other). For the available TPM products, approved SMOS Data AO PI's will have access within a quota of products compatible both with the project needs and the ESA production capacity.

Details on the currently available Third Party Mission data are available at http://earth.esa.int/missions/

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5 EVALUATION OF PROPOSALS

5.1 Review Panel and Procedures

The proposals will be reviewed by a Scientific Committee with representatives appointed by ESA and belonging to the category-1 Advisory Group:

- With expertise that encompass scientific research, technology, applications development
- With a broad understanding of the uses of Earth observation data, including uses in operational systems.

The purpose of the review is:

- To assess whether the specific projects are in accordance with existing data policy and with the specific objectives of the AO
- To evaluate the scientific, application and technical merits of the proposed projects in relation to their technical feasibility.

Final decisions concerning the acceptance of proposals will be made by the ESA Earth Observation Program Board upon recommendation of the Scientific Committee.
These final decisions will take into account the relevance to ESA Earth Observation mission objectives of proposed projects, the overall balance between the different proposals and their feasibility requirements in terms of spacecraft resources.

5.2 Evaluation Criteria

Within the overall context of the ESA Earth Observation mission objectives, and the specific objectives of this AO, the evaluation process is expected to identify opportunities to exploit SMOS data and products.
The following criteria will be used in the evaluation process:

- Suitability of the proposal to the conditions of Category 1 use
- Relevance of the proposed project to the specific objectives of the Opportunity and the overall ESA mission objectives
- The merit of the project from a scientific, technological, economic and operational viewpoint and the degree of innovation of the proposal
- The technical feasibility of completing the project and achieving positive results within a period of typically three years, with special emphasis on the adequacy and practicability of the schedule presented in the proposal
- The competence and relevant experience of the Principal Investigator and collaborators, as an indication of their ability to complete the project successfully.

6 SCHEDULE

23 March 2007	Opening of the Announcement of Opportunity call
1 June 2007	Deadline for submission of proposals
September 2007	Submission of AO evaluation results for approval to ESA PB-EO
October 2007	Notification of evaluation results to the PIs
3 months before SMOS launch	Start of non SMOS data delivery
End of SMOS commissioning phase	Start of SMOS data delivery
3 years after end commissioning phase	Projects completion, final reports