

**Industry Day for GMES Sentinel-3 Mission**  
**27 November 2007**  
**Space Expo/ESTEC, Noordwijk**

With the present announcement, the Agency would like to inform Companies and Institutes (being EMITS users or within the European Commission's Framework Programme 7 participating states) of a presentation of the GMES Sentinel-3 Programme and its procurement opportunities to take place on the 27<sup>th</sup> of November 2007 in

**Space Expo/ESTEC, Keplerlaan 3, 2201 AZ Noordwijk (NL)**

**1. GMES Sentinel-3 Mission**

The overall objective of the Global Monitoring for Environment and Security (GMES) initiative is to support Europe's goals regarding sustainable development and global governance of the environment by providing timely and quality data, information, services and knowledge.

GMES serves two main policy requirements for Europe, including those of the European Union (EU) and ESA Member States, regarding the need for geo-spatial information services. Firstly, GMES provides independent access to information for policy and decision makers in order to advance European and national agendas related to environment and security policies. Secondly, GMES federates European contributions to the international Global Earth Observation System of Systems, GEOSS, which is established based on the 10-year implementation plan adopted at the Third Earth Observation Summit held in Brussels in February 2005.

The objective of the GMES Space Component programme is to fulfil the space-based observation requirements in response to European policy priorities with a particular emphasis on the pilot services identified for early implementation. It aims at full operational provision of satellite data for GMES services.

At the moment three Fast-Track services (Land, Marine and Emergency) are already decided by the European Commission (EC). The transfer of other services, part of the ESA GMES Service Element programme, are being prepared for the EC operational environment.

The GMES Space Component program includes the following instruments or sensing capabilities, which are grouped into "Sentinels":

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|-------------------|---|
| <b>Sentinel-1</b> | A C-band interferometric radar mission;   |
| <b>Sentinel-2</b> | A multi-spectral optical imaging mission;   |
| <b>Sentinel-3</b> | A mission with wide-swath low-medium resolution visible and infrared radiometers and a radar altimeter package. |

Sentinel-3 is a Low Earth Orbiting mission providing fast revisit land and ocean monitoring on a global basis. In order to fully meet the GMES requirements and in particular the Ocean and Land (global) Fast Track Services, two operational satellites are envisaged in-orbit to provide a 1 day (land) and 2 days (ocean) revisit time, which allow to guarantee in almost all cases 10 days of cloud-free composites over the surface for the optical images and adequate sampling of meso-scale circulation over the ocean. Additional satellites are then required to provide the sustained operational services over a minimum period of twenty years following the first satellite launch.

Each satellite, designed for a minimum lifetime of 7 years, is carrying a payload comprising:

- The Ocean and Land Colour Instrument (OLCI), with strong heritage from MERIS instrument on Envisat,
- The Sea and Land Surface Temperature Radiometer (SLSTR), with strong heritage from AATSR instrument on Envisat, enhanced with additional capabilities (channels, swath);
- The SAR Radar Altimeter (SRAL), with strong heritage from Cryosat
- A dual frequency microwave radiometer (MWR) to provide wet troposphere correction for the radar altimeter
- The precise orbit determination package including: a GNSS receiver, a laser tracking mirror and a Doris receiver

Sentinel-3 features a 3 axis stabilised satellite flying in a frozen sun-synchronous orbit, with an orbit repeat cycle longer than 20 days as required for the topography mission and a local time at descending node located between 10:00 hr and 10:30 hr as desired for the optical instruments while keeping continuity with Envisat/ERS/SPOT missions. With a 1200 Kg mass and 1.1 KW power consumption, Sentinel- 3 fits the baseline VEGA launcher with ROCKOT as back-up.

## **2. Procurement Plan Presentation**

Following a competitive procurement process, the Agency has selected Thales Alenia Space (F) as the Prime Contractor for the Implementation Phase Contract for the Sentinel-3 Mission.

The Prime has been Kicked Off on the 16<sup>th</sup> of October 2007 and in the coming weeks it will proceed with the competitive procurement process in order to build up the remainder of the Sentinel-3 industrial team in compliance with ESA Code of Best Practises taking into account, where applicable, the agreement being put into place between ESA and the EC.

While at a later stage each planned competitive procurement would be announced on EMITS and, where foreseen, on the EC's CORDIS web-site ahead of the actual release of the related ITT, it has been considered opportune by Thales Alenia Space and ESA to inform as soon as possible candidate subcontractors of the various subsystem and equipment procurement opportunities as well as the procurement planning and procedure.

To this effect, an Industry Day will take place at the Space Expo in Noordwijk on the 27<sup>th</sup> of November 2007.

In order to participate you should register your interest to attend not later than 16<sup>th</sup> of November 2007 to:

- ESA : Ms Claudia WILDNER  
e-mail: [Claudia.Wildner@esa.int](mailto:Claudia.Wildner@esa.int)  
Phone: +31-(0)71-5658331

The event will start at 09:00 hrs and will end no later than 17:00 hrs.

Please note that for logistic reasons a maximum of 2 participants per Company can be allowed. In addition, the indication of the splinter sessions to which each Company representative intends to attend (see provisional agenda next page) is also required. The precise composition and number of the splinters will be finalised at a later stage.

A final agenda with all logistic details will be distributed to the registered participants during the week before the event.

This invitation is published in EMITS and on the EC's Cordis web-site.

The provisional agenda of the Sentinel-3 Industry Day is:

1. Introduction
2. Mission Objectives
3. S3 S/C technical description
4. S3 Industrial roles (core team) & Development Schedule
5. Procurement rules (Best Practices, ESA and Industry roles).
  - o Contractual Phased Approach
  - o ESA Geo-return Requirements and EC FP7 rules
6. Overview of items to be procured via Best Practices
7. Procurement Calendar (typical + detailed)
8. Splinter sessions for group of Procurements
  - 8.a. *Mechanical & Thermal, MGSE*

List of items to be procured. For each item:

    - Summary description (main reqmts)
    - Procurement Calendar
  - 8.b. *Power, Electrical, Harness, EGSE*

List of items to be procured. For each item:

    - Summary description (main reqmts)
    - Procurement Calendar
  - 8.c. *S/W, Avionics and Propulsion*

List of items to be procured. For each item:

    - Summary description (main reqmts)
    - Procurement Calendar
  - 8.d. *Digital Electronics, RF Units, Antennas*

List of items to be procured. For each item:

    - Summary description (main reqmts)
    - Procurement Calendar
  - 8.e. *Optical, Opto-electrical, Opto-mechanical*

List of items to be procured. For each item:

    - Summary description (main reqmts)
    - Procurement Calendar
  - 8.f. *Project control, PA, engineering support, simulators*

List of items to be procured. For each item:

    - Summary description (main reqmts)
    - Procurement Calendar

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