

EARE - Revision of activities and status

09/10/2012

ESA's Applications and Renewable Energies



1. Prior to EARE Platform:

- a. SpaceGrid: Supporting the management of the electricity grid – TERNA (I)
- b. CSP-FoSys: Concentrating Solar Power, Forecasting System SolarMillennium / Flagsol (D)
- c. INTOGENER: Improvement in the management of hydropower plants – ENDESA 0 Starlab (E).
- d. PIMS: Pipeline Integrity Monitoring through Space – S&T / Gasunie / SaSOL (NL / ZA).
- e. CCS – SpaceMon: Supporting the monitoring of CCS Storage Sites – ASTRIUM / Vattenfall (D)



2. Space is proving itself useful in many energy-related areas.
3. To support new areas, it is necessary to make awareness of space technologies amongst relevant stakeholders.



ESA Ambassador Platform for
European Adoption of Renewable Energies

EARE

1. Promotion and participation in events:

- a. Preparation of workplan (2nd half 2010)
- b. Inauguration event: 30/03/2011 at CENER HQ (Navarra):
Decision to focus initially on Wind Energy.
- c. Preliminary discussions with TP-WIND (Oct-11)
- d. Participation on TP-WIND's General Assembly (Mar-12)
- e. Promotion through TP-WIND's newsletter
- f. Preliminary discussions with AEBIOM (Jun-12)

2. Generation of space & energy related activities:

- a. ITT – *“Supporting Services for the Wind Power Industry”*, focused on site assessment and wind forecasting, about to be awarded.
- b. *“Com4OffShore”*, support to off-shore wind farms construction logistics (led by OHB, with the support of DoC, Hotchief and RWE).

3. Currently:

- a. New wind power-related ITT under preparation.
- b. Exploration of possible biomass-related activities



1. Awareness amongst energy-related stakeholders:
 - a. Discussions with key players, either institutional or commercial (Technology platforms, TSOs, Generation companies, etc).
 - b. Participation in future events (EWEA conferences, Heat & Cold event, etc.)
 - c. Collection of specific requests from users (through face-to-face or telephone discussions, collection of ideas via forms, etc.).
 - d. Presentation of results and possible ways forward.
 - e. Call for user ideas
2. Identification of new opportunities:
 - a. Continue exploring wind and biomass-sector needs
 - b. Explore new areas (solar, grid integration, etc.)
 - c. Cross-fertilisation amongst disciplines.
3. Please, feel free to contact us!!



Cross-Fertilization: New Opportunities for a Collaboration Between Space & Energy

09/10/2012

1. New ESA Applications programme:
 - a. User driven-approach to space applications.
 - b. Development of new services integrating space capabilities (Earth Observation, Navigation, Earth Observation, Human SpaceFlight technologies) with existing tools and services.
 - c. Utilisation of existing space capacity, no new technology development.
2. Two main supporting chapters:
 - a. Feasibility studies, to proof the service concept technically, legally and economically:
 - If initiated by ESA, up to 100 % funded.
 - If initiated by industry, up to 50 % funded.
 - b. Demonstration projects, to develop the service concept and drive it to a pre-operational stage. Funding up to 50 % always.

ESA – New Opportunities for Partnerships (I)



1. Third-Party (co-)Funded programmes:

- a. Agreements between ESA and other organisations to develop application-specific development programmes.
- b. Development framework agreed between ESA and other organisations, but always user-oriented.
- c. Initiatives benefit from ESA's long standing experience in managing programmes. Additionally, ESA provides resources (manpower, access to technologies and services, contacts with space industry, etc.)

2. Examples of third-party funded opportunities:

- a. SAHEL: 1MEuro ESA / EC partnership to show the capabilities of space technologies within the field of eHealth in SSA.
- b. eHSA: 36 M€ ESA / EIB partnership devoted to build a framework to develop sustainable eHealth services in SSA

3. ESA would like to discuss with energy-related stakeholders similar approaches to promote new integrated services.



ESA – New Opportunities for Partnerships (II)



1. IAP Prize:

- a. Opportunity for start-ups, SMEs and academia with innovative ideas.
- b. Co-funded between ESA and an interested third party(ies), 50 % each.
- c. Scope of the prize shall be discussed with the third party(ies)

2. Concept:

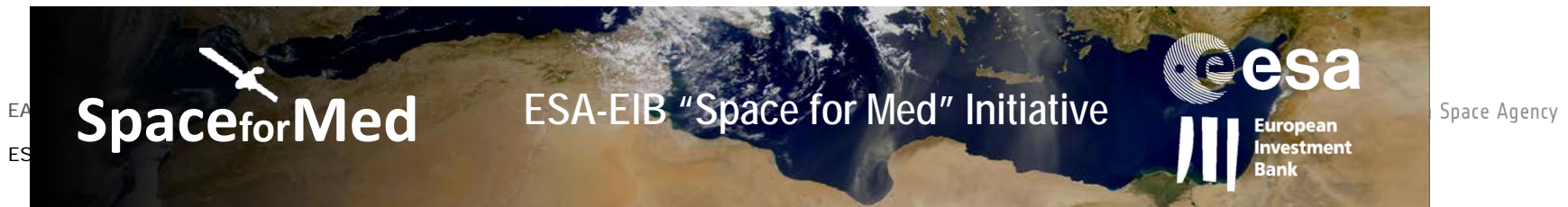
- a. Call for proposal, maximum 5 pages each.
- b. Participation potentially limited to an area / category.
- c. Proposals evaluated, and the winner will be invited to submit an ARTES 20 feasibility study proposal for the value of the prize.

3. First IAP Prize will be launched in Germany.

4. Check <http://iap.esa.int> for details (will be updated soon)



1. Agreement between ESA and EIB:
 - a. Raise awareness and explore opportunities for space-based services in the Mediterranean area (particularly MENA).
 - b. Areas: Energy, Transport, Water management.
2. Approach:
 - a. Identify relevant needs and stakeholders in the Mediterranean area.
 - b. Run small market / business assessment studies in the region.
 - c. Raise funding to develop new third-party funded programmes of interest for the region.
3. SpaceForMed inauguration:
 - a. Barcelona, 23/11/2012
 - b. Registration will be opened on 19/10/2012, please, check <http://iap.esa.int>



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Thank you!

Visit us on:

<http://iap.esa.int/c/eare>