

# HYLAS 1 & SES ASTRA applications opportunity

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**ARTES Applications Workshop 2013** 

Palazzo Salviati, Rome – 18th and 19th April 2013



### **ESA-Satcom Operators Initiative**

### A way to connect projects with operators



# ESA-Satcom Operators Initiative Background considerations





- Satcom Operators' and ESA are both interested in finding and promoting space based applications and services that can bring innovative solutions to user communities
- To reinforce and better exploit this convergence, a novel model of cooperation between ESA and Satcom Operators was set up in 2011: ESA and Satcom Operator engage in a formal agreement which is aimed at supporting new ARTES Applications Projects (mostly Demos, but also Feasibility Studies where relevant) to select, adopt and implement a Satcom solution well tailored to their needs
- The ESA-Satcom Operator Initiative fosters the creations of a partnership between operator and the project, a partnership which should be possibly developed further after the end of the ESA contract, in the operational phase of the service
- Through this initiative, the satellite operator is not just a supplier of capacity or connectivity services at special/discounted conditions, but an organisation that has a concrete interest in building up a partnership with the project

European Space Agency

#### What the ESA-Satcom Operators Apps Initiative provides for



Formal agreement between ESA and the Satcom Operator guarantees the following undertakings:

- 1) A set of privileged conditions to access the satellite capacity for the duration of the ESA project (either free of charge, or at discounted fees)
- 2) Structured access to technical, operational and commercial information to support the selection of the most suitable option
- 3) Dedicated support during the preparation of the proposal and the execution of the project

The agreements currently(\*) in force are the following:

| Satcom Operator           | Satellites                   | Provision                                | Status      |
|---------------------------|------------------------------|--|-------------|
| Avanti                    | HYLAS 1                      | Raw Capacity, Managed IP Access Services | Operational |
| SES Broadband<br>Services | Astra @ 23.5°<br>and 5° East | Managed IP Access<br>Services            | Operational |

(\*) In Nov2012, Eutelsat has also started discussions with ESA for possibly joining the initiative

### Avanti HYLAS 1 Capacity 1/2



A single Ku European beam suitable for DTH TV, HDTV and Multicast services.

Uplink frequency bands 17.3-18.1GHz
Downlink frequency bands 11.7-12.5GHz
Service areas Western Europe

Up to eight Ka spot beams capable of serving broadband, interactive TV services as well as HDTV.

Uplink within 27.5 - 30.0 GHz
Downlink within 18.1 - 20.2 GHz
Service areas Western Europe



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#### HYLAS 1 Opportunity: what is offered 2/2 (at NO COST for ARTES 20 and ARTES 3-4 Projects)



#### 4 Options available:

- Project accessing HYLAS 1 capacity using its own hub, terminals and network control centre
- As Option 1), but hub equipment can use Avanti earth station in the Teleport, with Avanti backhaul if needed
- Project accessing Avanti IP networks (iDirect or HNS) with guaranteed BW for the project
- As Option 3), but accessing BW shared with other services/users

Satellite Capacity



Pure Bandwidth



Guaranteed Virtual Network Operator

Shared Virtual Network Operator



Hub

Infrastructure



Network Backhaul



Network Operations



Service Provider



End User

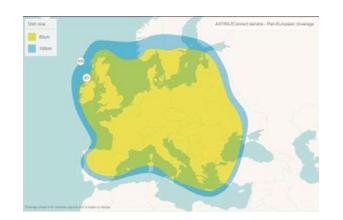


\*Optional

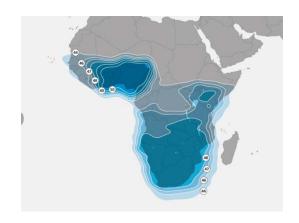
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#### SES Capacity









- Broadband services over the Pan-European and Middle East beams of the ASTRA-3B satellite located at 23.5deg East, and over the Sub-Saharan African beam of the ASTRA-4A satellite located at 5deg East
- Different service profiles (data rates and volumes)
- Two months free of charge for the project
- Special discounted conditions (to be disclosed by SES)

#### Is this relevant for your project?



- 1. The initiative is optional, not mandatory
- 2. The selection of the right solution/operator among the possible options depends on:
  - The geographical coverage required by your project
  - The type of capacity (IP access services, or raw bandwidth)
  - Required data rates (inbound and outbound)
- 3. Projects that intend to use this initiatives are requested to indicate this in the Outline Proposal
- 4. In order to take into account the point of view of the selected Satcom operator, a staff member of the Satcom operator will participate in the ESA Tender Evaluation Board. This participation is strictly personal, and bound to confidentiality and non interest conditions. *If you have a concern, see point 1 above*
- 5. In case of doubt, please contact ESA at:

iap@esa.int

## Further information at: <a href="http://iap.esa.int/opportunities/satcom-apps/operator-opportunity">http://iap.esa.int/opportunities/satcom-apps/operator-opportunity</a>





European Space Agency



# Contact point in ESA: iap@esa.int



Thank you!