

# **ARTES Applications:**

- IAP programme: outcome of Phase 1 and outlook for Phase 2**
- Satcom Applications**

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# IAP: Where we are and how we got here



1. The previous speakers have emphasized the wider economic importance of space applications.
2. Both have noted the tough challenge of maintaining high growth in the downstream sector, especially for solutions based on single space technologies.
3. Our own ESA studies have identified a large potential for space services in new markets, which often require integrated applications.
4. These considerations led to the creation of the IAP programme back in 2008 by ESA DG, Jean Jaques Dordain, with an initial budget of €54m for a Phase I lasting to 2013.

1. Now, after 3.5 years of effective operation, we have:
  - a. initiated >75 activities, in partnerships;
  - b. >50 studies and projects currently underway;
  - c. many more pending;
  - d. an increasing rate and variety of proposal submissions and open competitions;
  - e. Initiated a new Satellite-AIS user-driven mission.
2. We have also been operating long enough to obtain consistent feedback (as summarized by Ian Taylor).
  - a. We would like to thank all those who have participated in the programme and/or provided feedback.
  - b. We have listened carefully and have also made our own assessment of the IAP programme.
  - c. We have received high level political feedback that the programme has made many user communities much more aware of the benefits of space systems.

# Where we aim to go



1. Both our Director General, Jean Jaques Dordain, and our Director, Magali Vaissiere, like ambitious countries and ambitious programmes.
2. The feedback from both industry and Member States is broadly and quite strongly supportive of the programme.
3. It is also constructively critical.
4. We therefore aim to please everybody by making **an effective and better IAP programme for Phase II**.
5. So now let's look at some examples of what has worked, what we aim to improve and how we intend to do it:
  - a. the rest of the workshop will present many of the projects in detail;
  - b. the aim here is to look at the big picture and where we should be going next.

# IAP's future lies in lessons from the past: Improving the IAP programme & process



1. We are recommending improvements in the process to MS, taking account of industry feedback and our own assessment.
2. This has involved several rounds of discussion over the past few months.
3. Our aim is to obtain:
  - a. support of the proposed enhancements to the IAP programme by the JCB later this month;
  - b. formal adoption of an enhanced programme at the ESA Ministerial Council in November 2012.
4. Where improvements can be made internally, we are putting them in place:
  - a. These mostly relate to greater flexibility in matters such as study logic and the definition of user commitment.

1. As discussed by Ian Taylor, users want a quick solution to business needs, which requires a faster IAP process:
  - Accept a more concise outline proposal, esp. for Feasibility Studies;
  - Encourage more projects to go straight to Demo phase.
  - If a FS proceeds to a DP it should do so with minimum delay.
2. ESA recommendation to Member States:
  - **Fast Track Feasibility Studies** – max. value of ESA contribution €50k, co-funding mode, lighter one-stage proposal;
  - This is in addition to the normal FS approach, which is retained;
  - **Fast transition from FS to demo projects** – no need to refer back to the JCB (only reporting and expression of other MS interest) , must have letter(s) of support from the relevant delegation(s).

# Where we aim to go: Building on a successful formula



1. We are increasing the number of Open Competitions, e.g.:
  - a. Special Met. Services for Maritime SAR (closes 10<sup>th</sup> May)
  - b. Piracy prevention (imminent);
  - c. Services for the wind power industry (imminent);
  - d. Improving safety at railway level crossings (imminent);
  - e. Private medical assistance (imminent).
2. Some OC result from successful Calls for User Ideas:
  - a. The Baltic call generated 44 ideas, leading to 2 open competitions and 1 DN
  - b. Similar result with Alpine Call (38 ideas, five topics);
  - c. We are developing a call for ideas on critical infrastructure, managed via the Ambassador Platforms.
3. Others result from successful conferences, e.g. on the Arctic:
  - a. > 100 delegates, strong support for specific new activities.

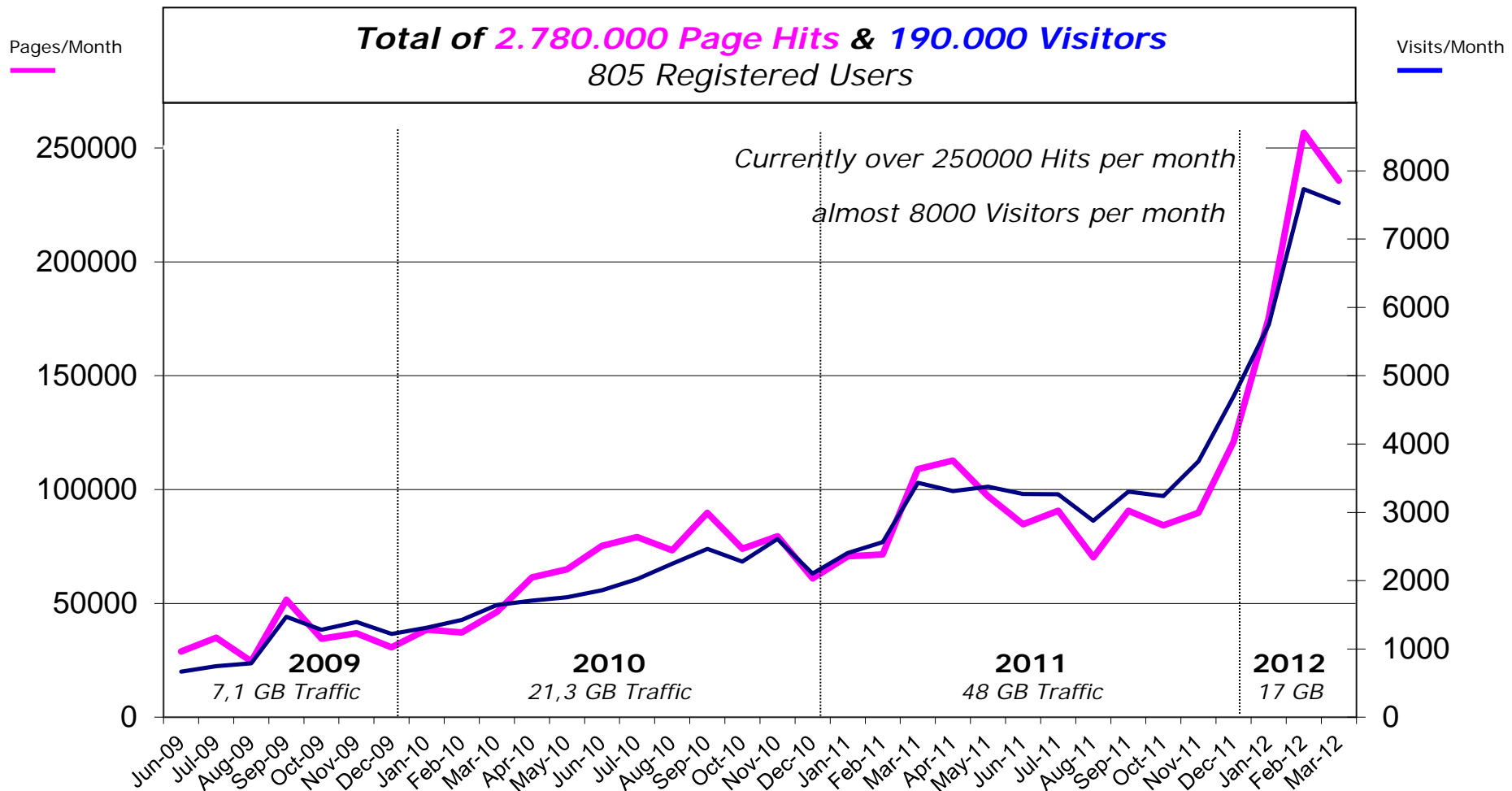
# A successful IAP Portal – iap.esa.int

## How do we drive & build on the growth?



### Evolution

### User-Interaction





# Answer: effective awareness activities drive growth

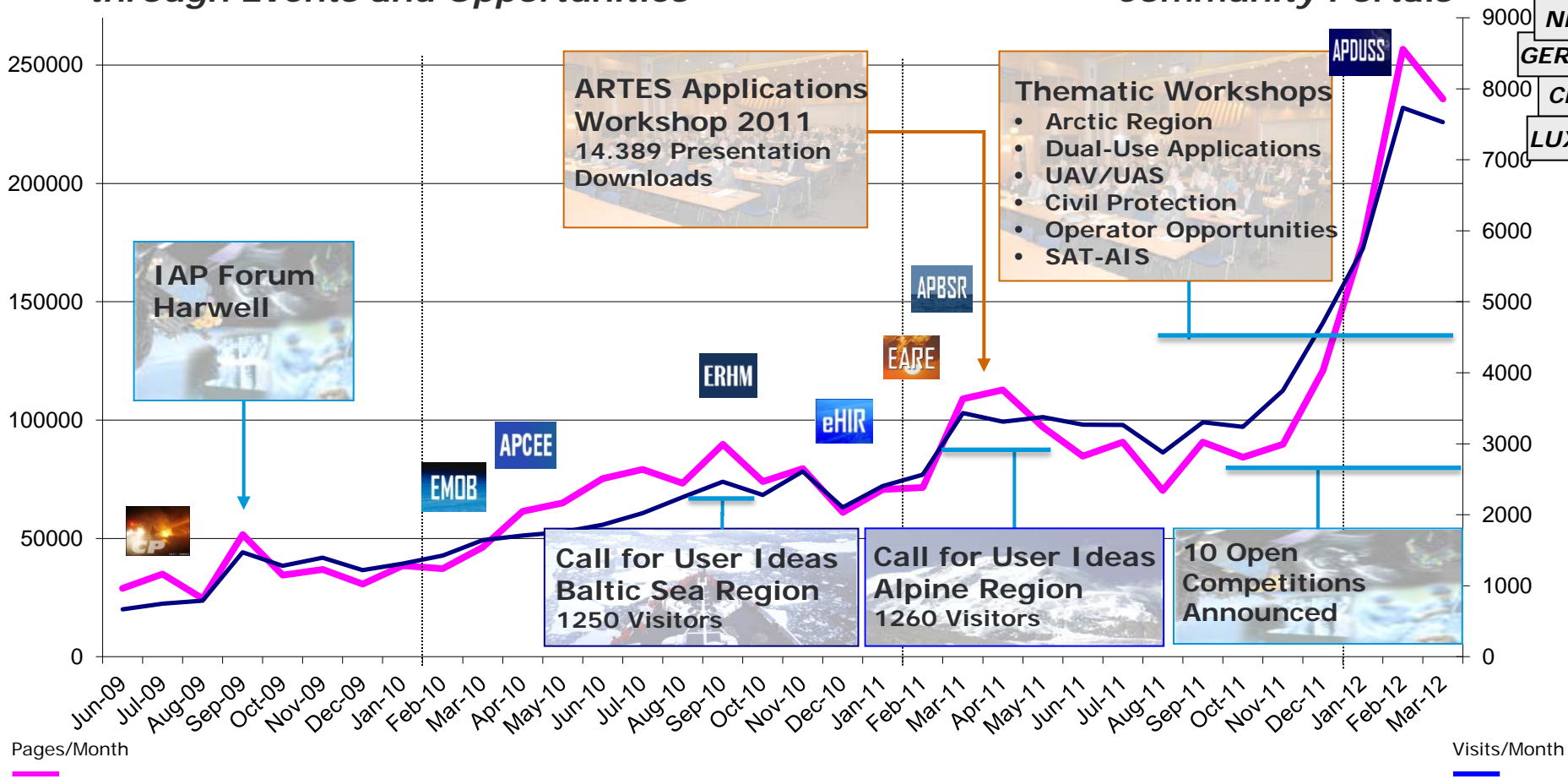


## Evolution

## User-Interaction

### Creating Awareness through Events and Opportunities

### Ambassador Platforms & Community Portals



# A growing number of demo projects & transition to operational services



1. We are now starting to achieve the desired balance between Feasibility Studies and Demonstration Projects.
2. Partly this is because more and more FS are successfully transitioning to Demonstration Projects.
3. We are also receiving more project proposals initiated at the demonstration stage.
4. Five projects have now moved into an operational service or a pre-operational phase:
  - a. IAEA nuclear site monitoring - operational
  - b. FlySafe - operational
  - c. Tempus aeronautical telemedicine has spun-off a pre-operational IAP service AMAZON;
  - d. Talking Fields – pre-operational
  - e. GrapeLook – pre-operational.

# Where we aim to go: A growing number of partnerships



1. eHealth for Sub-Saharan Africa Programme (eHSA):
  - a. Partnership with the EU-Africa Trust Fund and the Luxembourg Agency for Development & Cooperation (LuxDev);
  - b. Phase I has four themes – 3<sup>rd</sup> ITT on healthcare interoperability closes 5<sup>th</sup> June;
  - c. Much larger Phase II anticipated if Phase I successful.
2. Space4Med:
  - a. Partnership agreement with the EIB;
  - b. Focus on development projects in Mediterranean region.
3. PPP for services and applications:
  - a. ITT planned later this year on the Applicability of Public Private Partnerships in the Development of Space Based Services
4. We welcome further partnership initiatives and are open to new ways of doing business:
  - a. This is one of the intended functions of the IAP team at Harwell.

# IAP Conclusion: where we go from here



1. An effective and significantly enhanced programme enabling:
  - a. More awareness of the benefits of space-based services among new user communities;
  - b. More funded studies and projects, on an even wider range of topics;
  - c. More industry partners, including more SMEs and universities;
  - d. More support to users, industry and Member States;
  - e. More external partners and new programme elements;
  - f. More 3<sup>rd</sup>-party funding arrangements;
  - g. More projects going live as operational services; and
  - h. More positive economic impact.

## 1. In the period 1998-2011:

1. 154 Satcom Applications projects have been launched in the ARTES 3, 4, 5 & 3-4 programme elements;
2. With a total value of 112 MEUR (part funded by ESA), of which:
  1. 66% of the projects were contracted to Small and Medium Enterprises;
  2. ~50% of the projects were contracted to new entrants into ESA Telecom.

## Telemedicine/ Medical Education

29 Projects  
22.7 MEUR (ESA part)



## Satcom Networks Systems & Services

37 Projects  
31.2 MEUR (ESA part)



## B2B / B2C

34 Projects  
32.6 MEUR (ESA part)



## Location Based Satcom Services

15 Projects  
4.3 MEUR (ESA part)



## Disaster Relief/ Emergency Management

11 Projects  
3.6 MEUR (ESA part)



## Community Information Services & Capacity Building

16 Projects  
9.3 MEUR (ESA part)



## Distance Learning

9 Projects  
4.2 MEUR (ESA part)

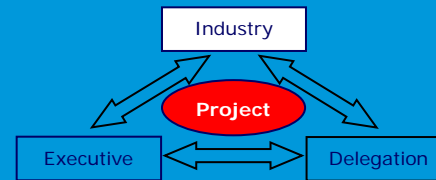


## eGovernment

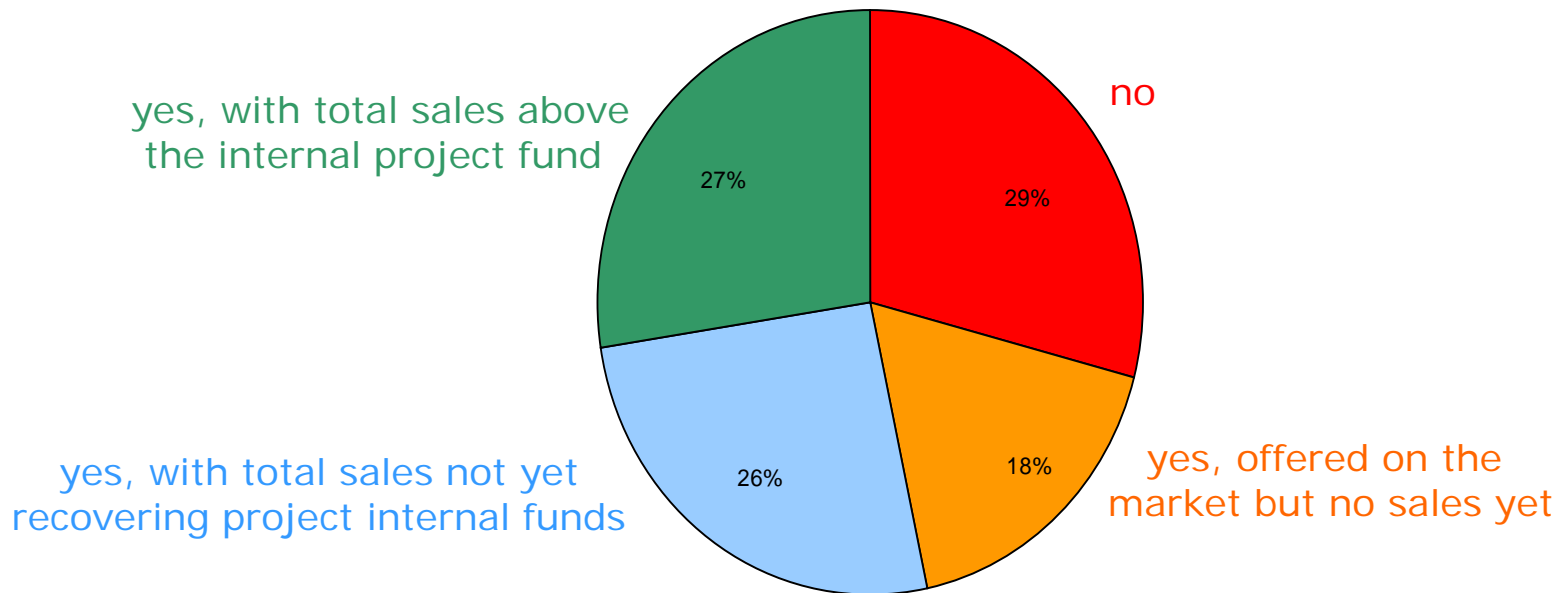
2 Projects  
1.9 MEUR (ESA part)



# ARTES 3-4 Satcom Apps Evaluation Results



Did the product or service resulting from your project get into the market (i.e. with paying customers)?



...Breaking news... Satcom Applications...