Viasat and HCS Applications Factory

Funding Opportunities

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High Throughput/Capacity Satellites

High-throughput satellite (HTS) is a classification for communications satellites that provide at least twice, though usually by a factor of 20 or more, the total throughput of a classic FSS satellite for the same amount of allocated orbital spectrum thus significantly reducing cost-per-bit.


List of high-throughput satellites:

- **Anik F2** (July 2004)
- **Thaicom 4** (IPSTAR) (August 2005)
- **Spaceway-3** (August 2007)
- **WINDS** (February 2008)
- **KA-SAT** (December 2010)
- **Yahsat 1A** (April 2011)
- **ViaSat-1** (October 2011)
- **Yahsat 1B** (April 2012)
- **EchoStar XVII** (July 2012)
- **HYLAS 2** (July 2012)
- **Astra 2E** (September 2013)
- **O3b satellite constellation** (2013-2014)
- **Sky Muster** (NBN Co-1A) (October 2015)
- **Badr-7** for TRIO Connect (November 2015)
- **Intelsat 29e** (2016), part of **Intelsat Epic series**
- **Intelsat 33e** (2016), part of **Intelsat Epic series**
- **ViaSat-2** (June 2017)
- **Intelsat 32e** (2017), part of **Intelsat Epic series**
- **Intelsat 37e** (2017), part of **Intelsat Epic series**
- **Intelsat 35e** (2017), part of **Intelsat Epic series**
- **SES-12** (Q4, 2017)
- **SES-14** (Q4, 2017)
- **Eutelsat 172B** (2017)
- **GSAT-19** (2017)
- **Fibersat-1** (Q4, 2018)

Viasat High Capacity Satellite (HCS)

- ViaSat 1 - 2011 - 140 Gbps - approx 750K subs, 100s of commercial airliner, (KaSat in Europe approx 170K subs)...
- ViaSat 2 - 2017 - 300 Gbps, 7 x coverage...
- ViaSat 3 series - 2020 - Tbps satellites, global coverage - affordable 100 Mbps broadband for millions, 1000s of aircraft......
HCS Applications Factory
HCS Applications Factory

The HCS Applications Factory is a collaboration between ViaSat and ESA along with national delegations to:

- Stimulate and accelerate the growth of the European space industry
- Develop products and services exploiting HCS capabilities
- Develop strategically and commercially meaningful products and services to ViaSat, industry and national delegations
- Provide significant economic benefit via marketisation of products and services
- Provide societal benefit
HCS Applications Factory

Building a community to develop applications for High Capacity Satellites

GROWTH
Strategically & commercially meaningful new Products, Services, Applications

INVESTMENT
50% of development cost

FUNDING
Time to access funds significantly reduced

SUPPORT
Technical / Mgt / Business

Products, Services and Application for HCS
What it means to you

- Committed funds in some national delegations, including UK, available to support relevant proposals
- Significantly simplified route to funding new space projects
- Viasat assistance through the application process
- Access and potential collaboration with viasat and HTS/HCS
- SPACE HUB ONLINE PORTAL allows organisations of any size to submit ideas for rapid consideration:

https://thespacehub.com/
The Space Hub – Online Portal

Online hub for members to turn ideas into viable products and services
The Space Hub – Online Portal

<table>
<thead>
<tr>
<th>Become a Member</th>
<th>Submit Your Idea</th>
<th>Complete the Application</th>
<th>Get Funded and Start Creating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign up to become part of the European HCS community, gaining access to funding, potential partners, industry experts, and the latest information on HCS innovation.</td>
<td>Before investing time and resources in creating the application, run your ideas through the Space Hub to receive expert feedback on viability and positioning strategy. All ideas are confidential and protected.</td>
<td>The application process can be daunting and overwhelming. Through the Space Hub, project management and technical experts are available to expedite the process and increase your chances for acceptance.</td>
<td>Upon funding award, Viasat will provide you with a highly specialised project team and various resources to help transform your idea into a reality.</td>
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Project Selection Criteria

Main HCS Criteria
Applications that:
• Create significant demand for HCS
• Accelerate the development of key ViaSat HCS technologies and/or capabilities
• Result in revenue generation in Europe

Main National Delegations (NDs) Criteria
Applications that:
• A business case that provides economic benefit
• Commercialisation of technology
• Sustain or create jobs
• Involve industry in the nation

Main ESA Criteria
Applications that:
• Stimulate growth of the European space industry
• Provide societal benefit
• Adhere to ESA governance rules

The best candidate projects would fit the key criteria of all three stakeholders
End-to-End Project Selection Flow
Examples – Two Current Projects

Telemedicine (SatCare)

UAV for civilian use (ViaDrone)
Potential Areas of Interest (Examples)

- Any applications that have high satcom data requirements

- Connecting the Underserved

- Seamless Connectivity

- Aviation

- EO / Leo to Geo

- Environment

- Maritime

- Emergency Services

- Big Data

- Farming
Next Steps

› If you have an idea and would like to explore funding / working with Viasat through the Apps factory:
  – Contact Viasat for an informal discussion through the Portal ‘Contact Us’ page
  – Further information is available on the Apps Factory portal:
    - https://thespacehub.com/
    - Or search ESA “esa applications factory”

› Future events:
  – Applications Factory Industry Briefing
    Hosted by the Satellite Applications Catapult, Harwell
    2 May 2018, 1pm to 2.30pm
THANK-YOU