

Viasat and HCS Applications Factory

Funding Opportunities

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8th February 2018



VIASAT PROPRIETARY

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.

Ref: Wikipedia

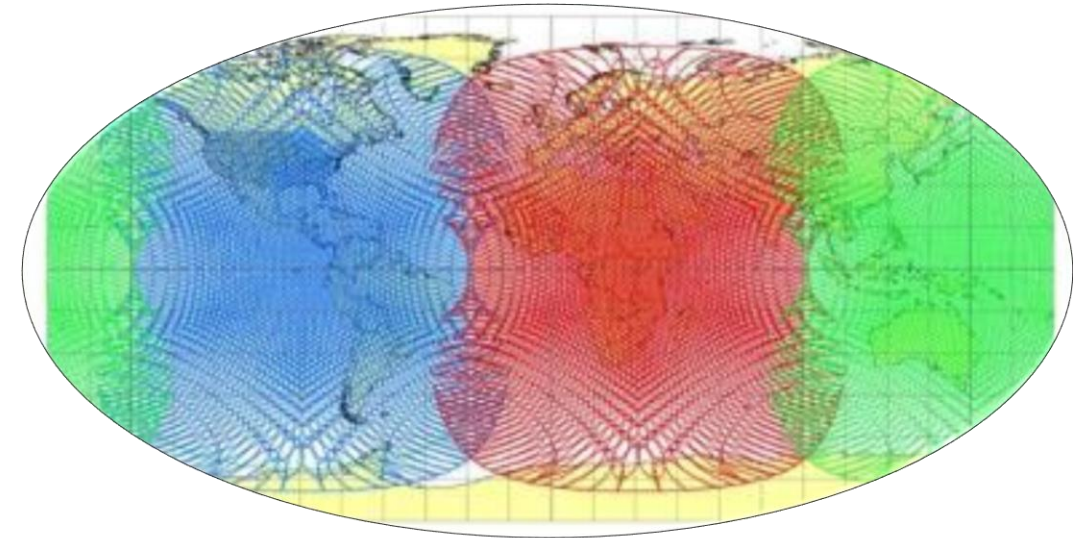
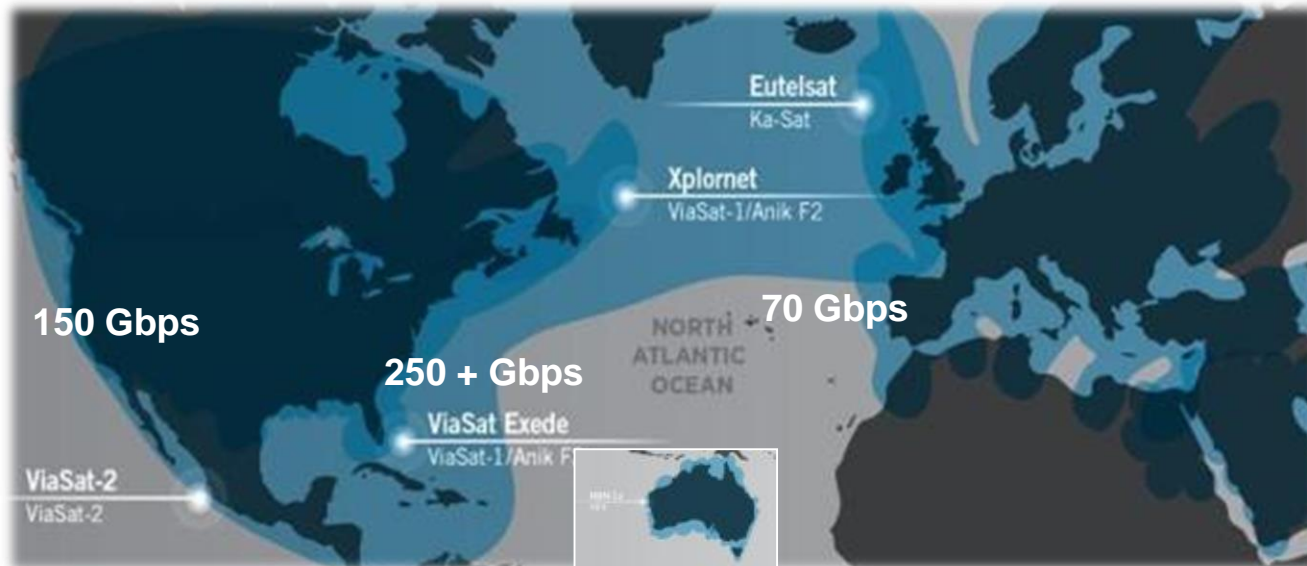
List of high-throughput satellites:

- [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)
- [Inmarsat Global Xpress constellation](#) (2013-2015)
- [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)

Ref: Wikipedia

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.....



1000x Capacity Increase Changes Everything about How Satellite Fits in the Communications Market

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

European
Industry

ViaSat

GROWTH

Strategically & commercially
meaningful new Products,
Services, Applications

INVESTMENT

50% of
development cost

HCS Applications Factory

SUPPORT

Technical / Mgt /
Business

FUNDING

Time to access funds
significantly reduced

**Products,
Services and
Application for
HCS**



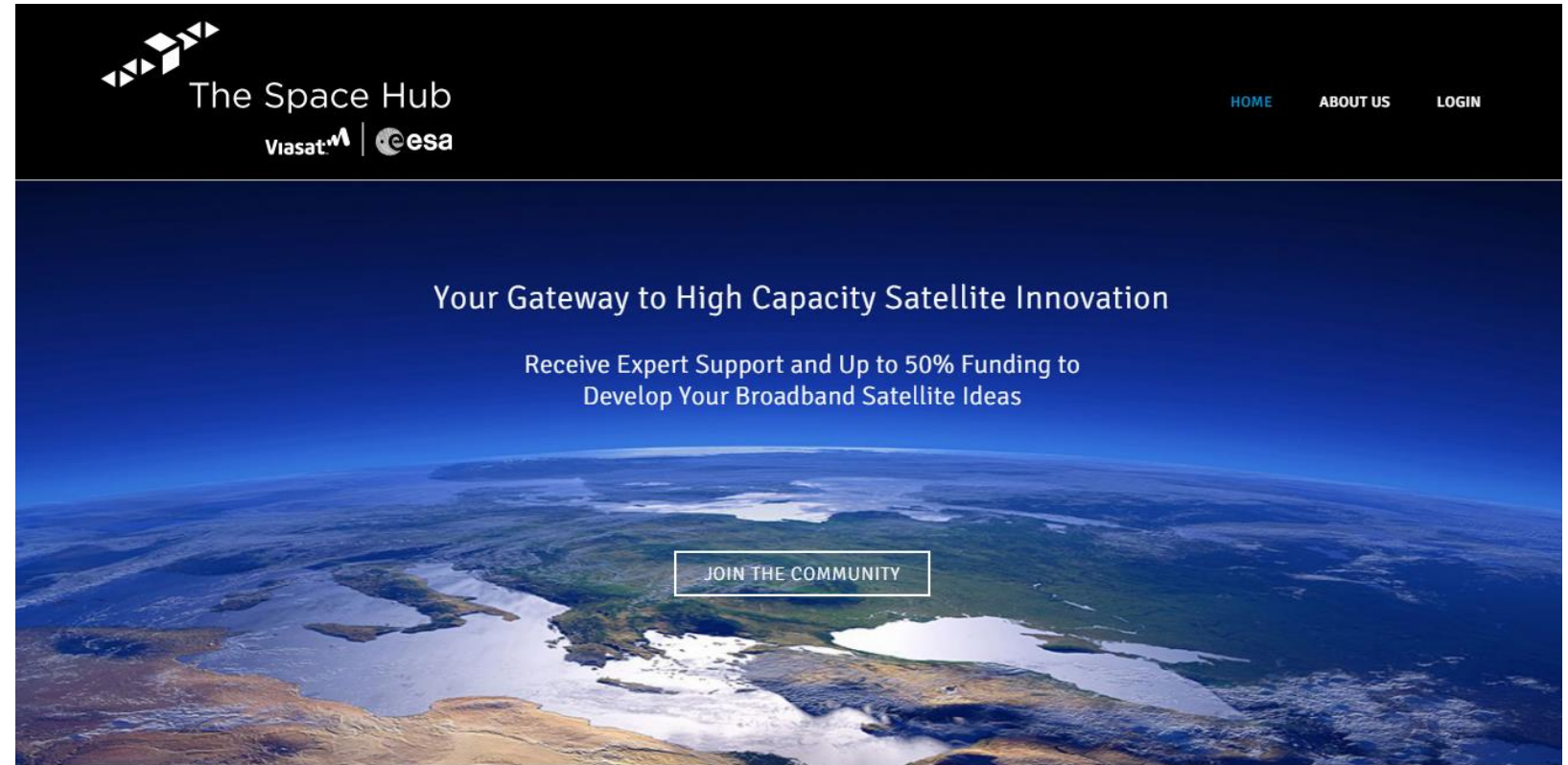
What it means to you

- > 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



If you have a great idea on how to use or improve High Capacity Satellites (HCS), but need funding or development support...then you came to the right place. ViaSat and the European Space Agency (ESA) have collaborated to create the HCS Applications Factory, offering up to 50% funding for projects that help accelerate and materialise HCS innovation. Through the Space Hub, ViaSat helps you navigate the application process and bring those great ideas to life through collaboration, testing and integration support.

Delivering affordable broadband connectivity to all corners of the earth, the HCS industry is estimated to be worth over €500bn by 2030. Jump start your involvement today and become part of Europe's HCS centre of excellence.

The Space Hub – Online Portal



Project Selection Criteria

Main HCS Criteria

Applications that:

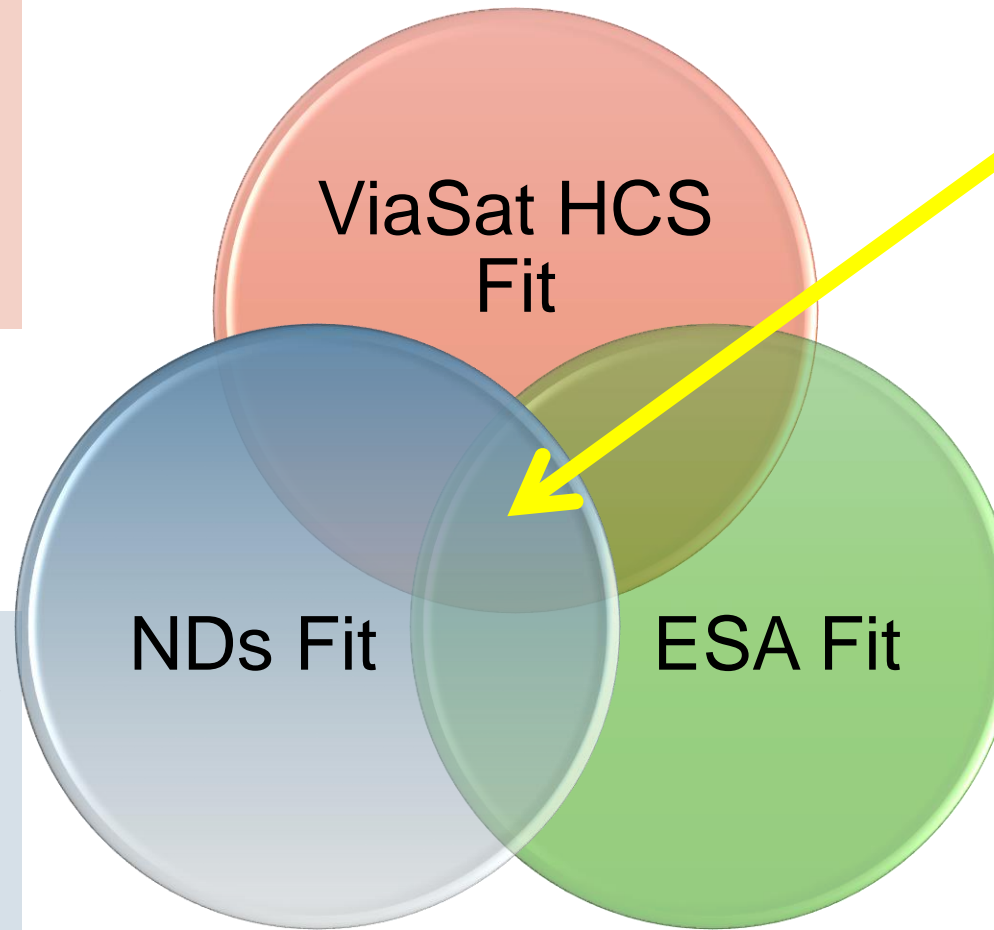
- Create significant demand for HCS
- Accelerate the development of key ViaSat HCS technologies and/or capabilities
- Result in revenue generation in Europe

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

The best candidate projects would fit the key criteria of all three stakeholders

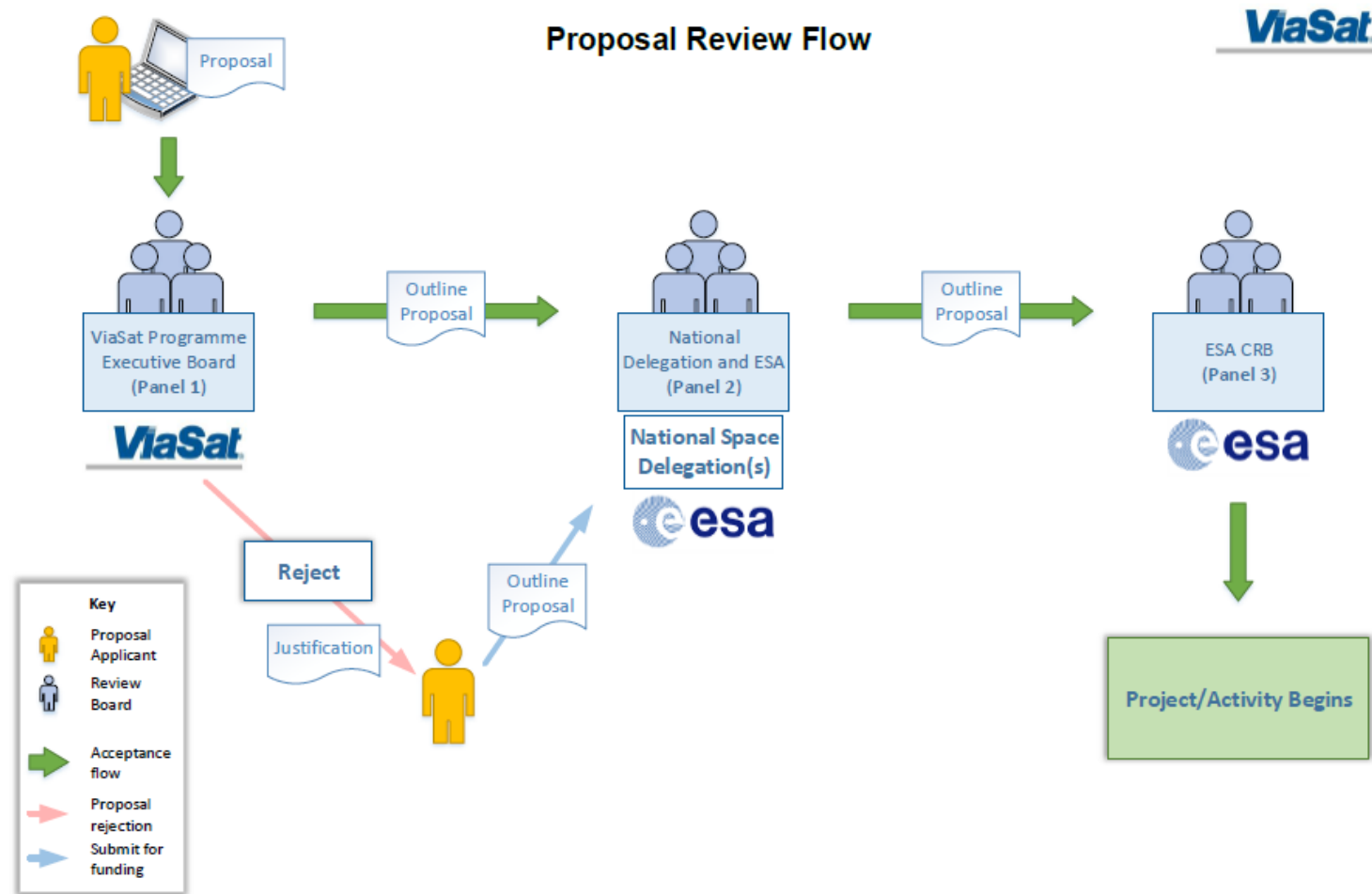


Main ESA Criteria

Applications that:

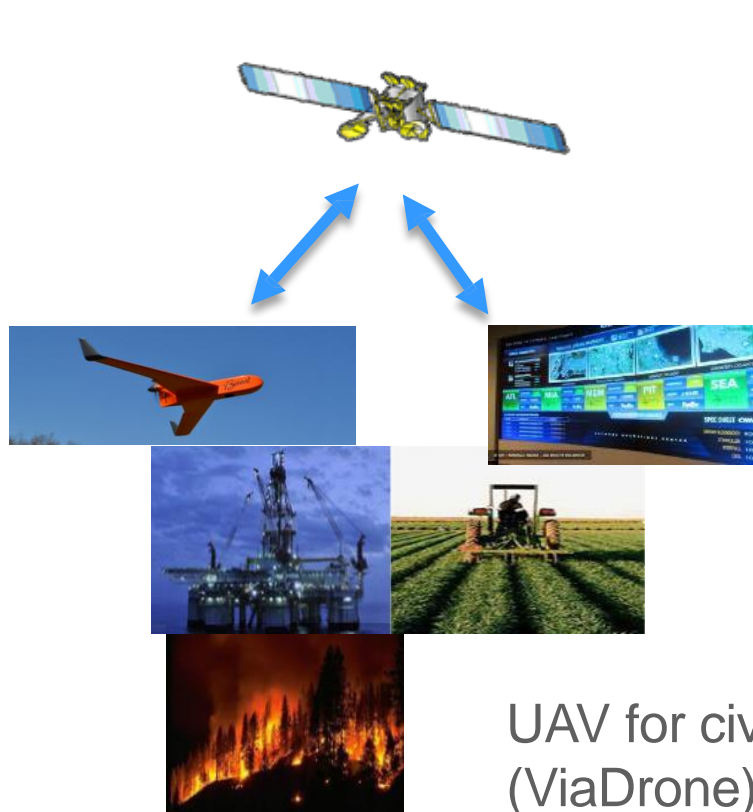
- Stimulate growth of the European space industry
- Provide societal benefit
- Adhere to ESA governance rules

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

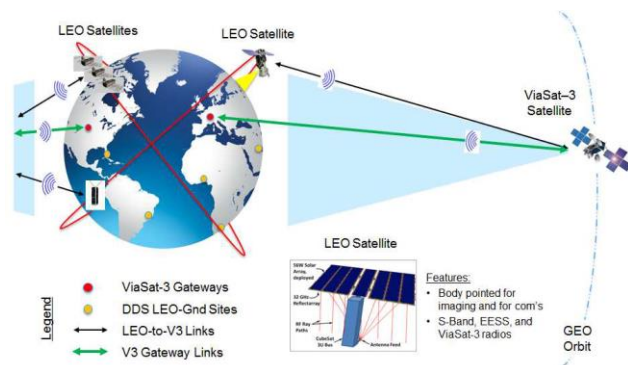


Seamless Connectivity



Aviation

EO / Leo to Geo



Environment

Emergency Services



Maritime

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

