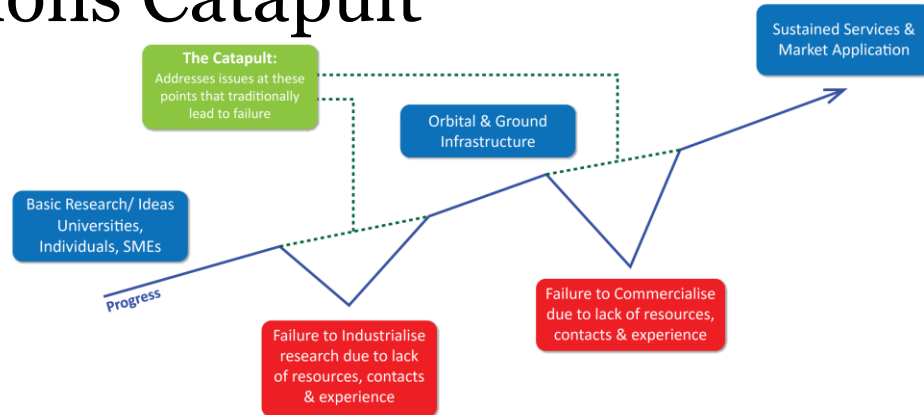


Satellite Applications Catapult Future Demonstrator Missions

Paul Febvre
Chief Technology Officer

25th June 2013

■ Satellite Applications Catapult



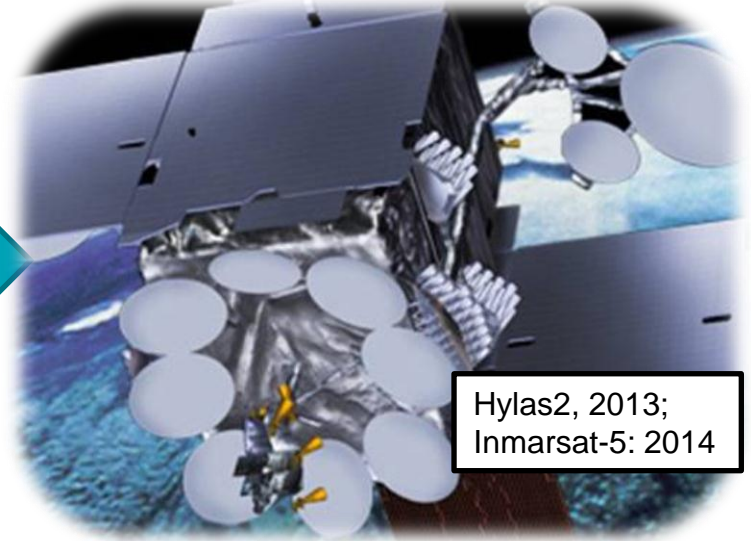
■ Objectives for demonstrator missions

- Respond to market challenges
- Provide a framework for research and development
- Deliver a platform for sustained application development
- Support international collaboration
- Create opportunities for growth

Technology Trends in GEO Satellite Telecommunications



Bigger satellites,
Higher Freq Bands



Smaller & Cheaper Devices



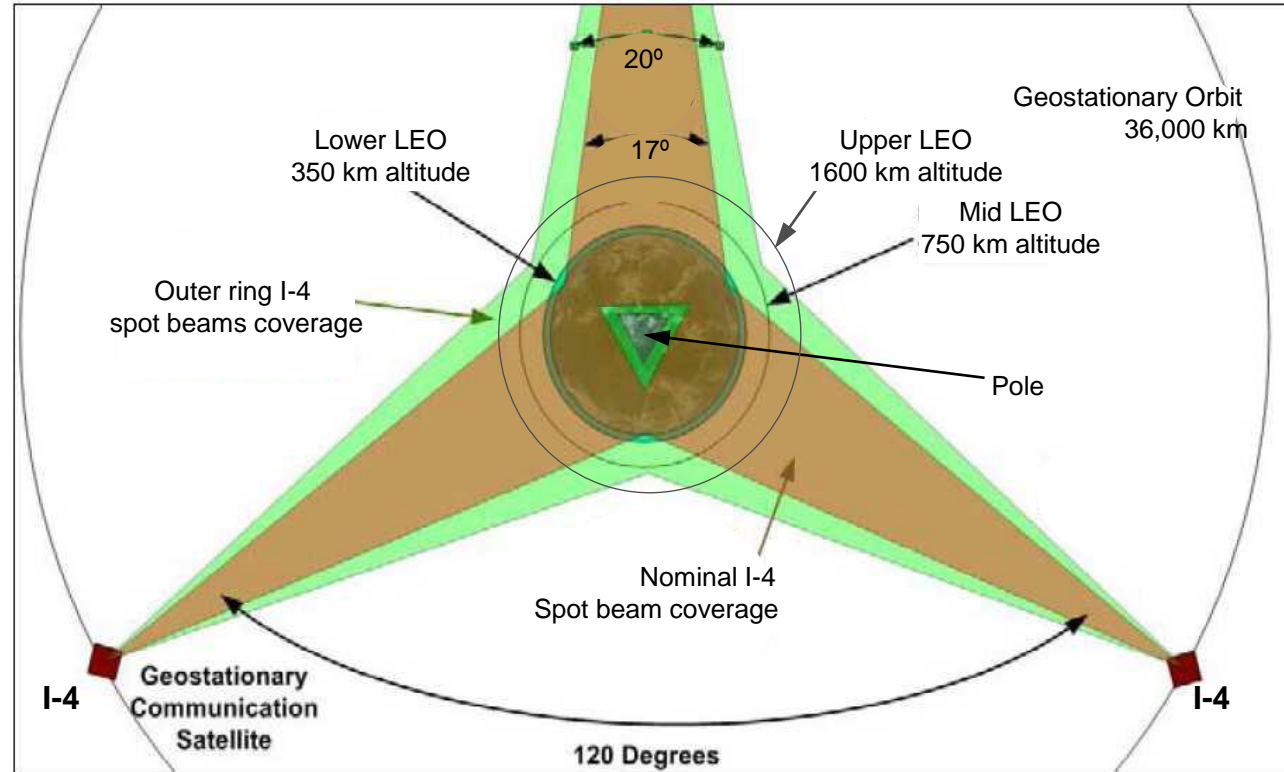
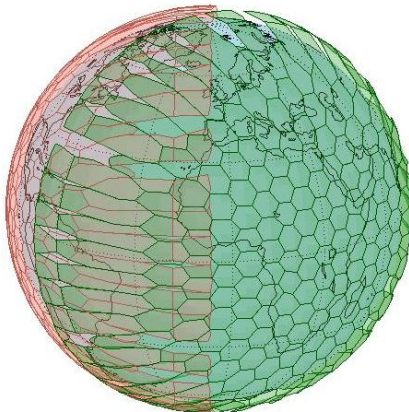
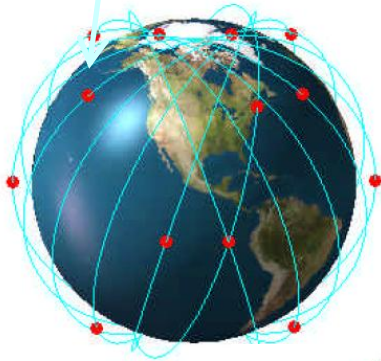
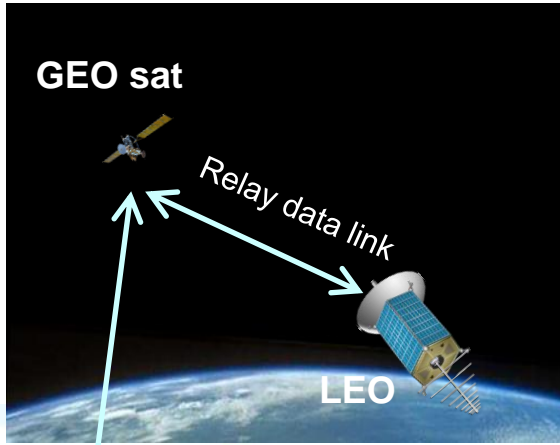
Example LEO Communications Satellite Constellation

Iridium

- Service launch 1999
- 66 satellites in 6 polar orbits (800km)
- L-band operation (1.6GHz)
- Inter-satellite links to minimise ground infrastructure



Enhancing the Data Relay Satellite concept



Objectives for the Polar Exploitation Challenge Workshop

- Understand the challenges and opportunities
- Brainstorm potential solutions
- Identify technology gaps and potential for exploitation
- Establish research and development agenda
- Develop networks and potential collaborations