

SPACE SOLUTIONS – SPACE FORUM POLAND 2018

**LLUC DIAZ, TECHNOLOGY TRANSFER
AND BUSINESS INCUBATION OFFICE
WARSAW, 24 MAY 2018**

Space in the 60s and 70s



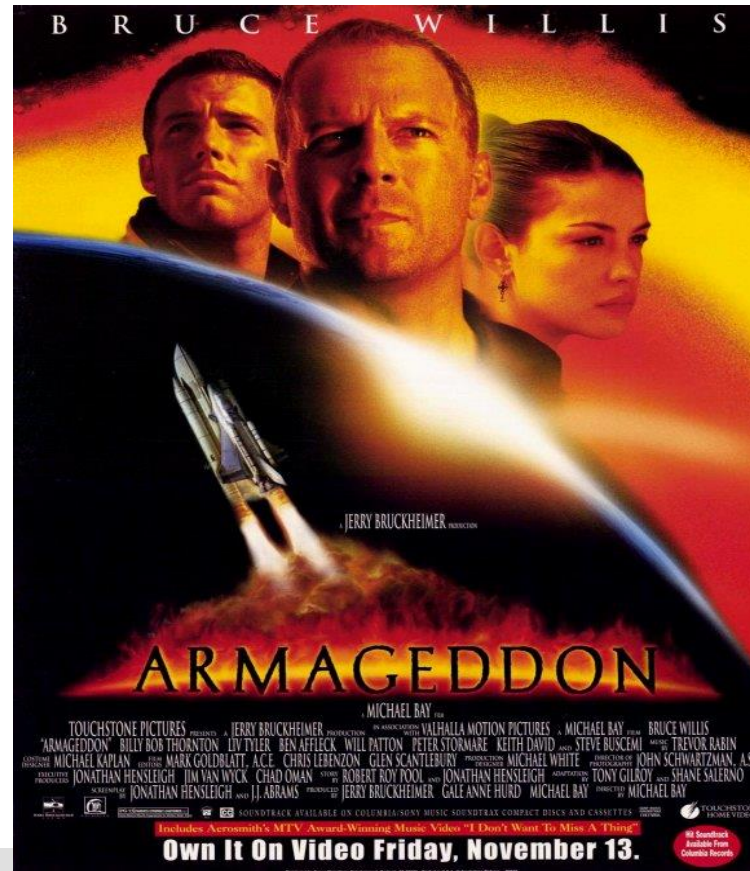
Space in the 60s and 70s



Space in the 80s to 00s



Space in the 80s to 00s



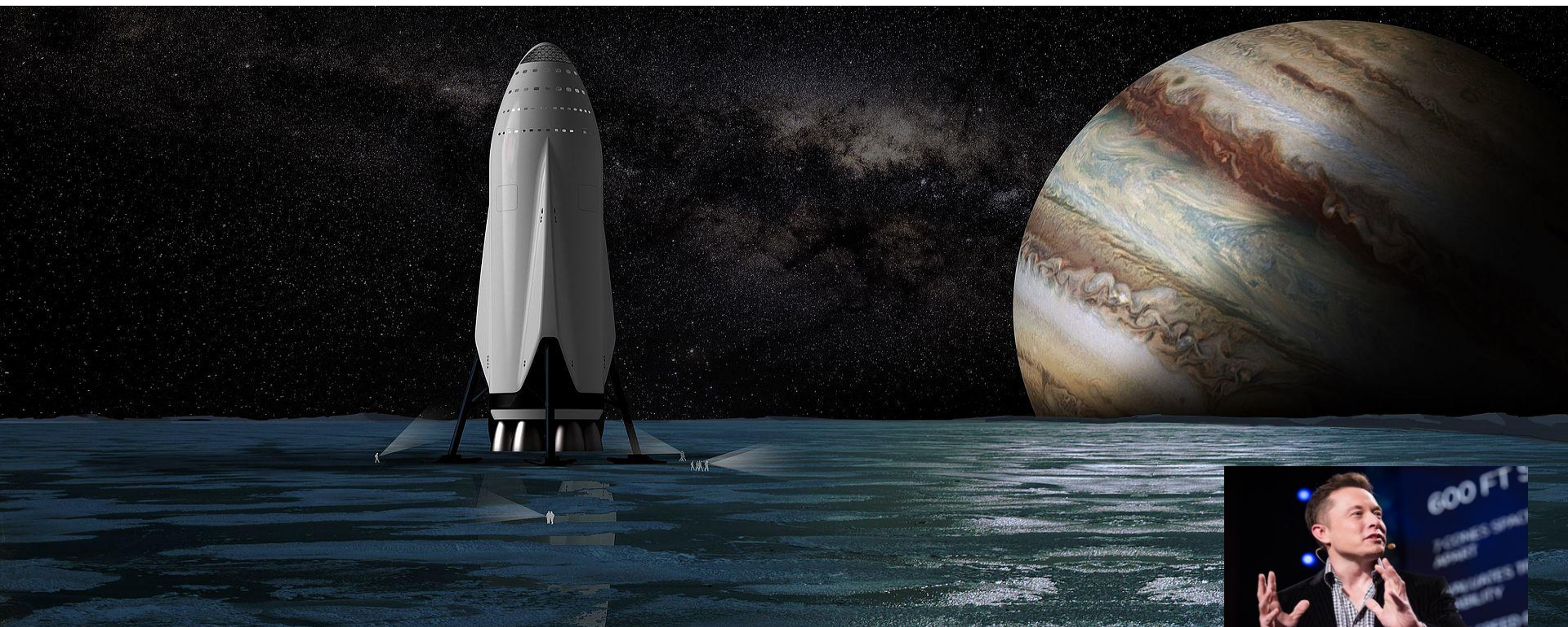
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European Space Agency

Space in the 2010-2030



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Picture: SpaceX

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Picture: TED
European Space Agency

Space in the 2010-2030



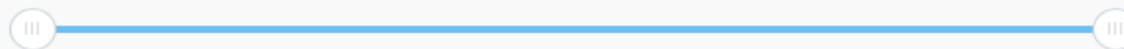
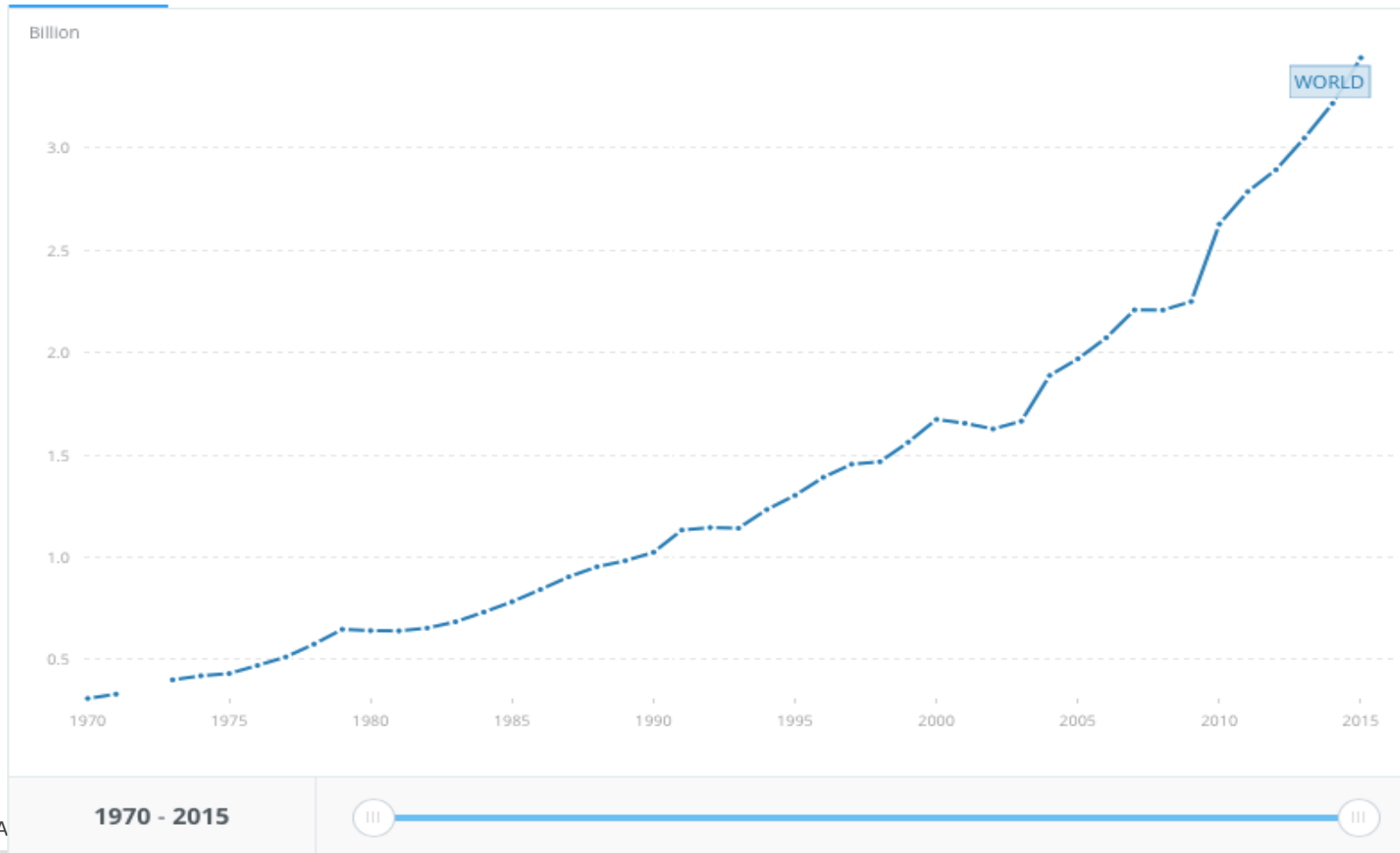




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Passengers Increase



How many "Astronauts"?



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ESA Approach



New Space & New Models



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STRATEGIC CIO IoT DEVOPS SOFTWARE SECURITY CLOUD MOBILE

CLOUD // PLATFORM AS A SERVICE

Planet Labs Revolutionizes Earth Views With Inexpensive Satellite



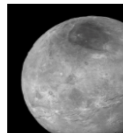
Charles Babcock
News

Connect Directly

1 COMMENT

Shoebox-sized Dove satellites capture ongoing high-resolution views of Earth from small, low-cost satellites.

Planet Labs CEO Will Marshall wants to give researchers, scientists, farmers, traders, and any other interested parties access to real-time data about planet Earth. Most satellite imagery is weeks or months old. He thinks it's time to bring the earth's surface data into frequent update mode, meaning every 24 hours.



Blue Origin Launches and Lands Recovered Rocket

Posted Jan 23, 2016 by Emily Calandrelli (@TheSpaceGal)

1,507 SHARES



Blue Origin builds the most powerful rocket ever made

The rocket under development will have 8.5 million pounds of thrust. "That's 31 747s at full power," says one engineer.

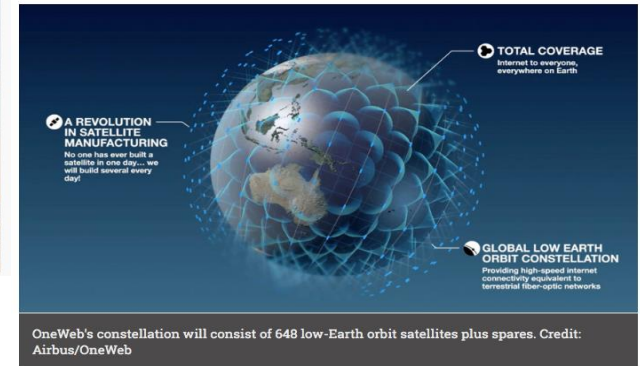
Vells | @janewells
1/26 Jan 2016 | 1:32 PM ET

NBC



Airbus and OneWeb form joint venture to build 900 satellites

by Peter B. de Seiding — January 27, 2016



Airbus and OneWeb on Jan. 26 announced they had formed the company OneWeb Satellites, which will build the OneWeb constellation – 648 satellites plus spares, for a total of about 900.



SpaceX
@SpaceX

Follow

Falcon 9 first stage on our dronship in the Atlantic after propelling the Dragon spacecraft to the @Space_Station
11:13 PM - 8 Apr 2016

8,036 14,074

ESA

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SCIENTIFIC AMERICAN™

The Dawn of the Space Mining Age

By Richard Yonck | November 24, 2015 | 11

The recent passage of the Space Act of 2015 in the U.S. House and Senate marks a key milestone for the commercial space industry. Ever since the 1967 Outer Space Treaty, nations have been banned from claiming or appropriating any celestial resource such as the Moon or another planet. Formally titled the “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,” the nearly fifty year old agreement has formed the basis of international space law ever since.



An astronaut secures the “bag” holding a huge space rock in an illustration of NASA’s proposed Asteroid Redirect Mission

Credit: NASA

The Atlantic SUBSCRIBE SEARCH MENU

A New Global Swarm of Weather-Sensing Satellites

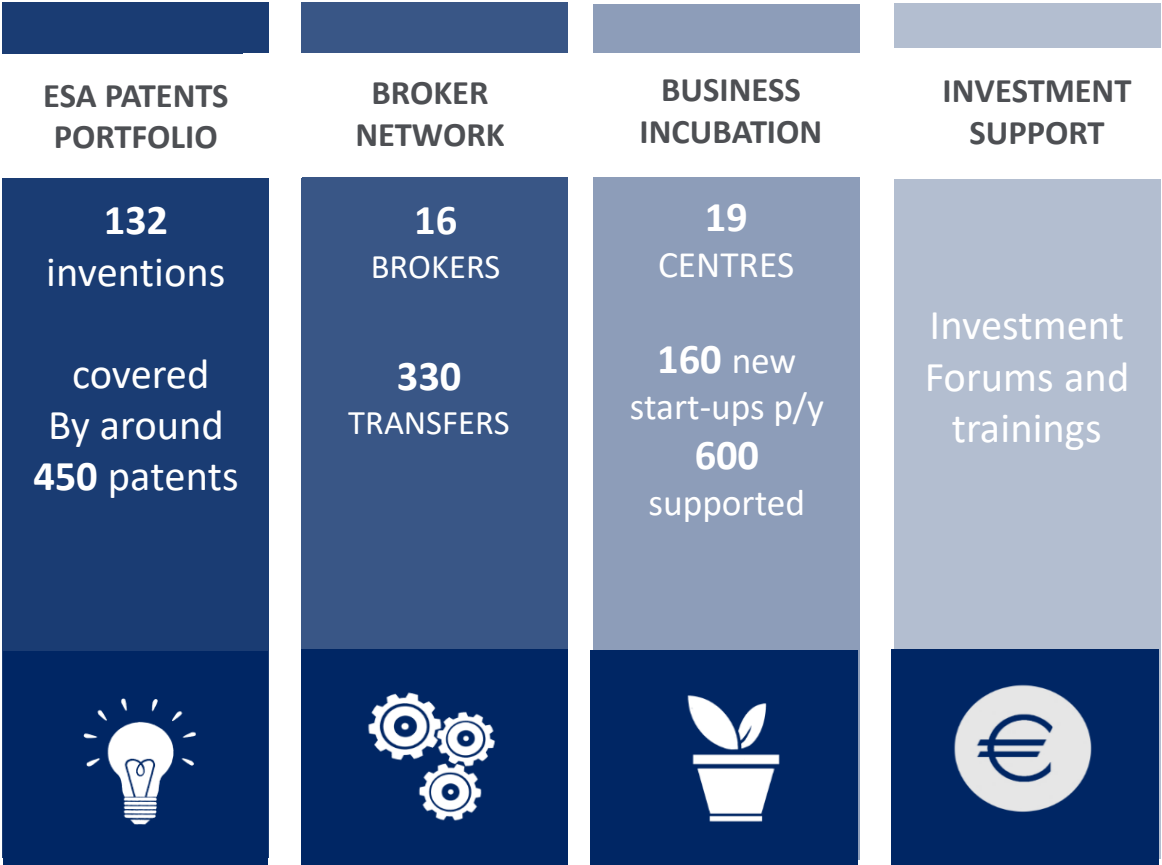
Armed with tiny orbiting sensors, a startup plans to build the world’s largest database of private weather data.

A man with long dark hair and glasses, wearing a green jacket, is holding a small, white, cube-shaped satellite sensor. The sensor has several thin, gold-colored antennas extending from it. He is looking at the sensor with a focused expression. The background is a blurred image of a person writing on a whiteboard.

A man holds one of the sensors inside a Spire Cubesat. (Spire)



Slide 15



ESA Space Solutions

Network of 24 Centres supporting space-related start-ups to get their business of the ground.

160+ Yearly start-ups supported across Europe

600+ Start-ups supported to date

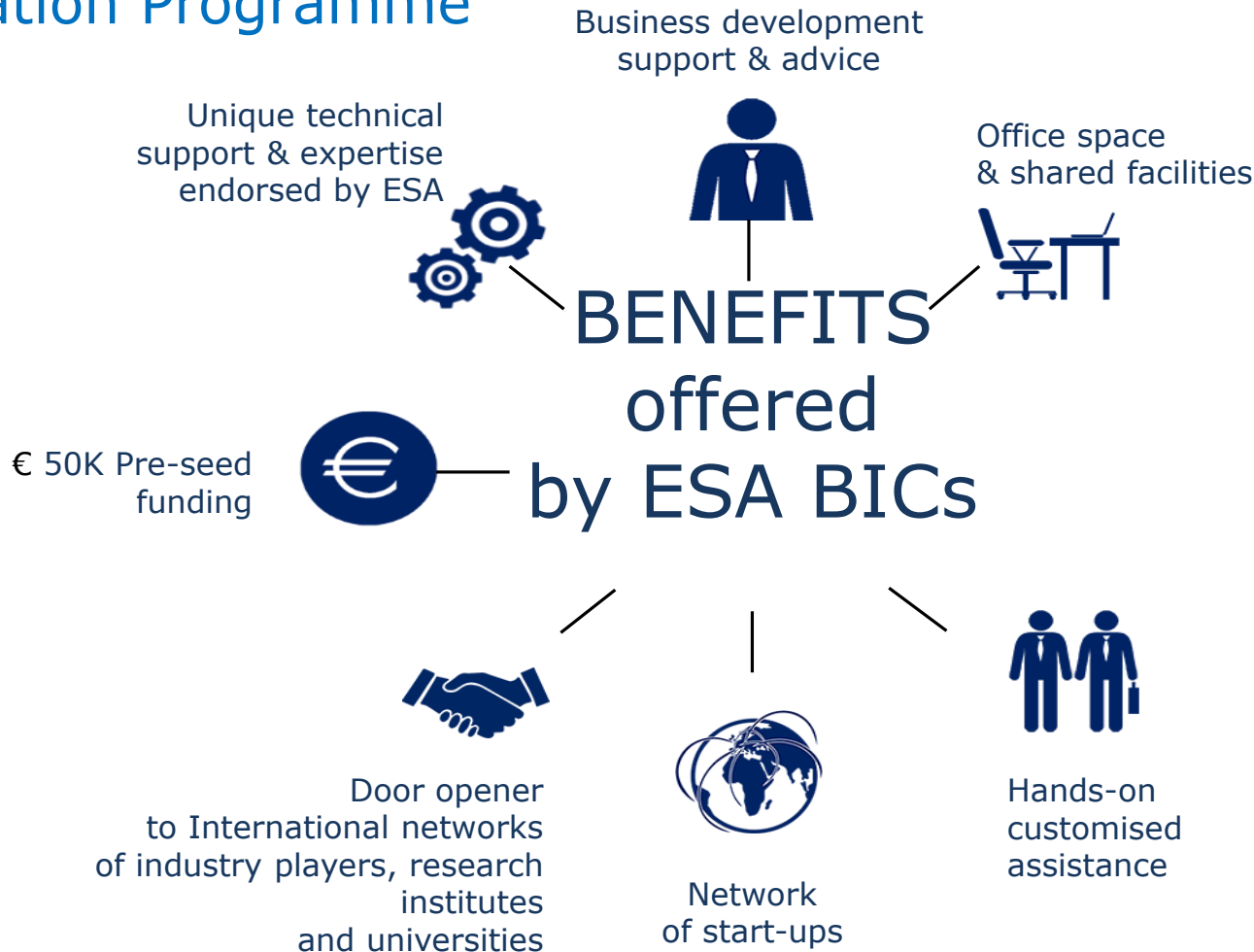
- ✓ EBN Partnership
- ✓ 9 European Agencies
- ✓ 12 Research Institutes

LEGEND

● ESA Business Incubation Centre

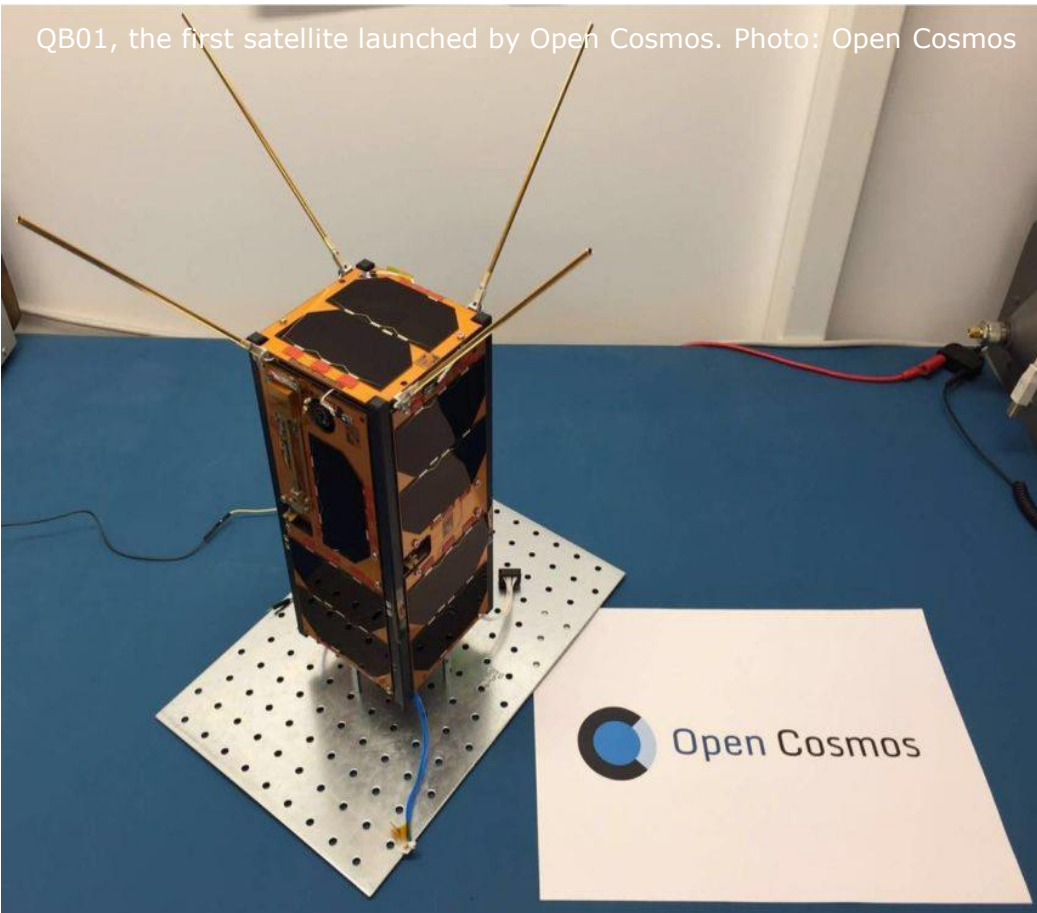


Incubation Programme





Space Commercialization – Space 4.0



ESA Space Solutions

ESA Technology Transfer
Network
Across 16 Countries

<http://spacesolutions.esa.int>

LEGEND

- ESA Broker
- ⦿ ESA Broker Prime Contractor

16 Transfers
per year

342 Transfers



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European Space Agency

Space Success on Earth

James Web Telescope: Stabilizing Science on Earth

Space Hexapod
used for
stabilization of
beamline of
Synchrotron with
special
environmental
requirements

James Web Telescope: Identifying vision problems

#SPACESOLUTIONS

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