

The logo for the UK Space Conference 2017 features a circular emblem with a red, white, and blue striped border. Inside the circle, the text "UK SPACE" is written in a large, bold, white sans-serif font, with "CONFERENCE" and "2017" stacked below it in a smaller, white sans-serif font. The background of the entire slide is a satellite-style image of Earth from space, showing the curvature of the planet and various landmasses and oceans in shades of blue and green.

UK SPACE
CONFERENCE
2017

Dr Geraint Morgan

The Open University

Applied Science & Technology Solutions Ltd

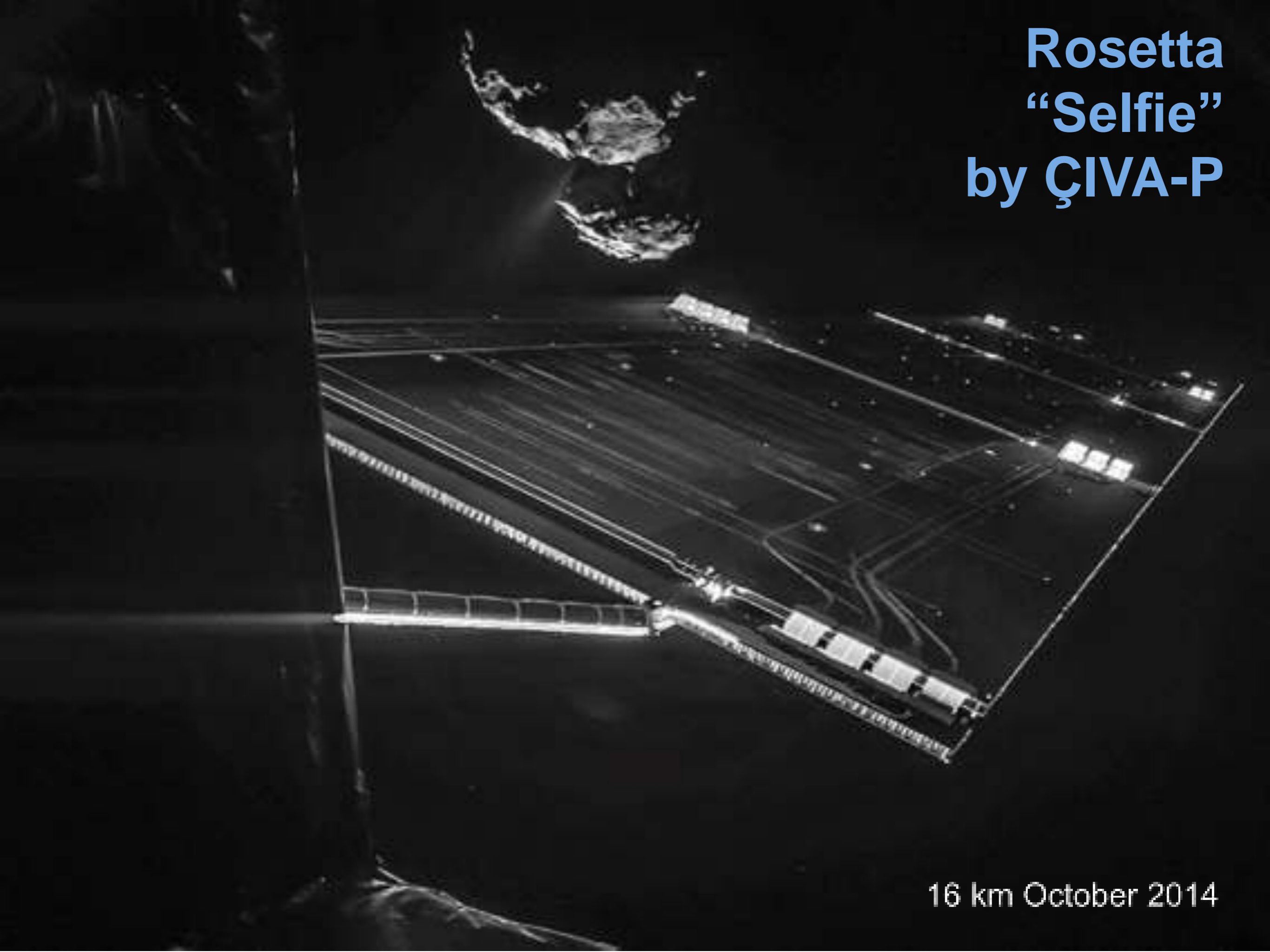
Insect Research Systems Ltd

Oxford MicroMedical Ltd

TEASS Ltd

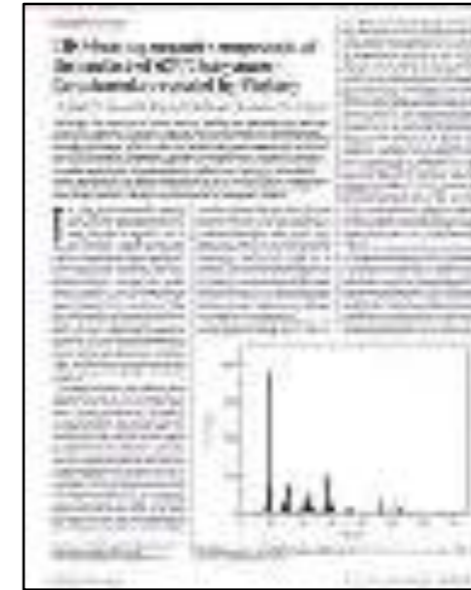
#UKSPACE2017

Rosetta
“Selfie”
by ÇIVA-P

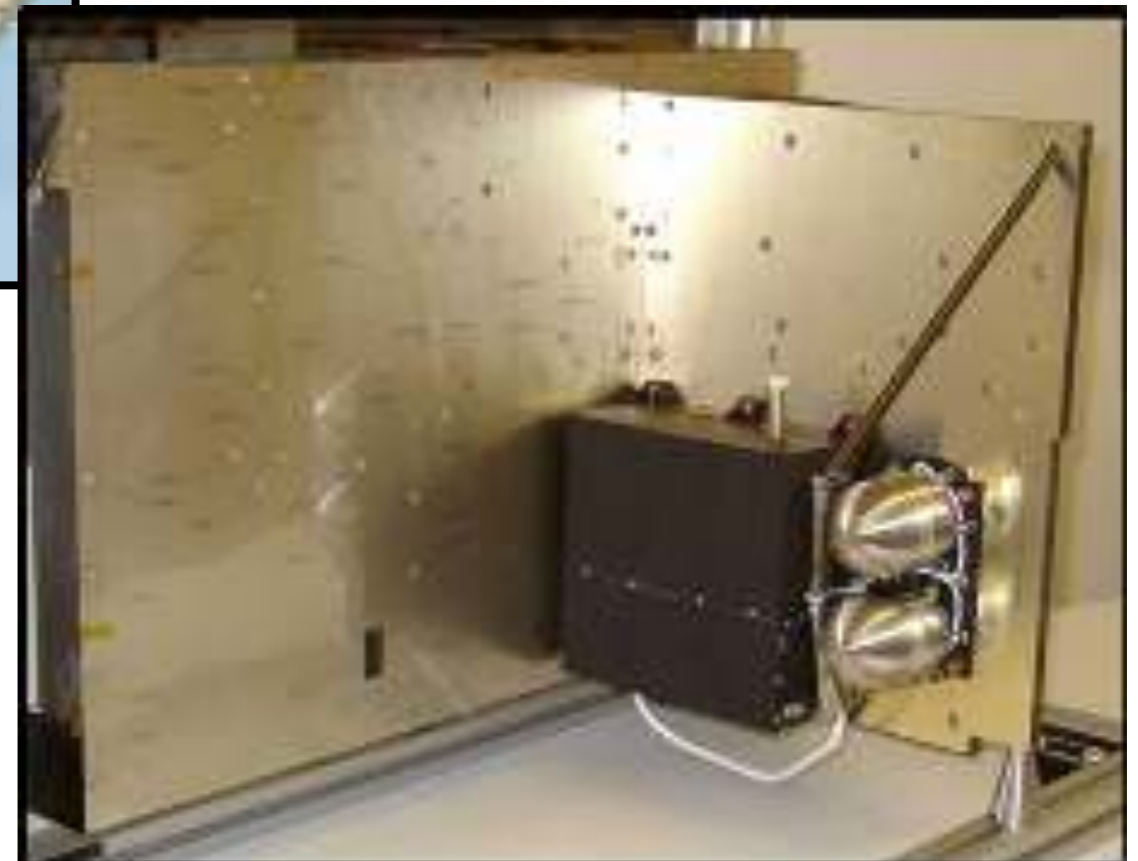


16 km October 2014

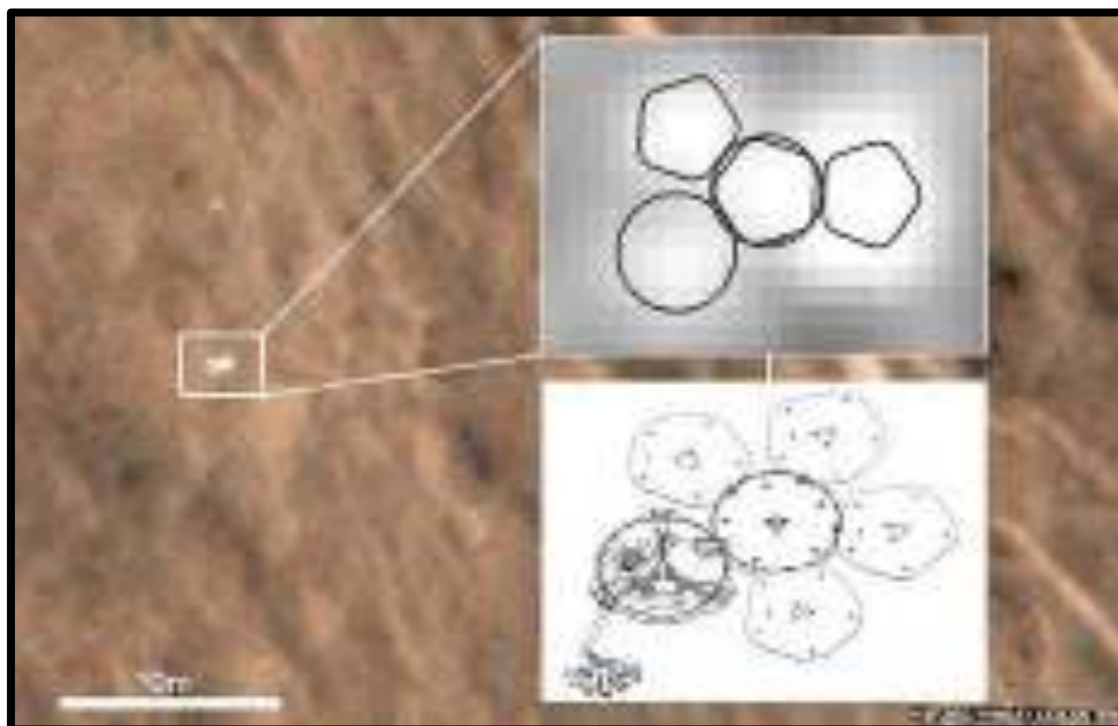
Ptolemy Instrument on the Philae Lander



Astronomy
&
Astrophysics



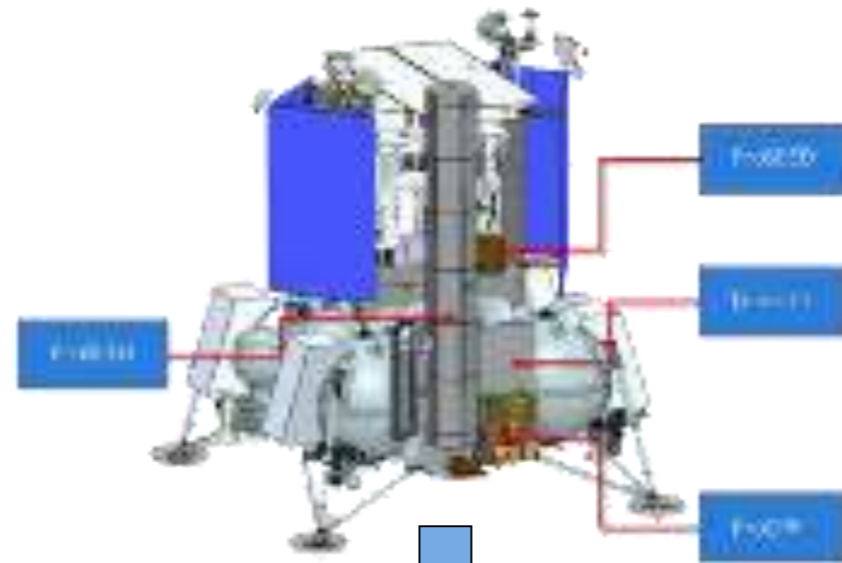
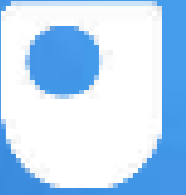
Gas Analysis Package on Beagle2



“Lost Beagle2 found ‘intact’ on Mars”

BBC NEWS: Jonathon Amos 16 Jan 2015

Science to Enable Exploration



Luna-27 (2022)

In Situ Resource Utilisation (ISRU) Demonstration

Moon Village and living off the land



Dr Simeon Barber and Dr Simon Sheridan

The Technology Transfer Roadmap



STFC ESA Rosetta Mission



Beagle2, PhD studentships, Wellcome Trust Strategic Translation Award, Contract Research



- World-leading instrumentation
- Experienced multi-disciplinary team
- Partnerships



Submarine
Air Monitoring

Forensics

Flavours &
Fragrance

Potable
Water

TB

Non-invasive
Disease &
Cancer
Detection

BAE Chairman's Award in Innovation

"A step change in a vital piece of safety equipment on board future Royal Navy submarines"



"For extraordinary behaviour that stimulates innovative design and application that delivers a proven solution, leading to improved business performance"

Miniature Valve



- Patented (UK, Europe, HK, US & Japan) range of miniature high performance gas and liquid control valves
- Low power & mass / precise flow control / low leak-rates
- Thermal or PZT actuation
- Manufacturing Licensing Agreements
- Evaluation Licensing Agreement

appliedscience&technology
SOLUTIONS LTD

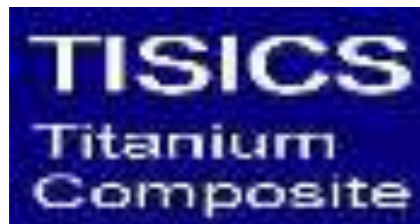


No plastic or rubber in wetted parts

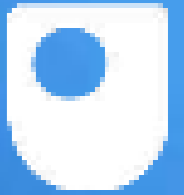
	PZT	Thermal
Mass (g)	35	2.5
Power (mW)	50	6,000
Leak Rate (mbar.l.s ⁻¹)	<1 E-8	<1 E-8
Operational Lifetime (actuations)	>50,000	>10,000
Actuation Time (ms)	10	1,500
Differential Pressure (Bar)	70+	70+

Novel Satellite Propulsion System

High Test Peroxide (HTP)



New Technologies for Industry



Milton Keynes Citizen
Home | MK News & Events | Local | Business | Health | Education | Sport | Arts & Culture | Community | Environment | Travel & Tourism

Local | Other | Politics | Community | Business | Health | Education | Sport | Arts & Culture | Environment | Travel & Tourism

Scientists use space travel to make perfumes



Chamberlain 2017 2017

University buffins working on a historic space mission are set to use their space-travelling knowledge create exotic new perfumes.

January 2017

- Phase A - Complete
- Phase B - Complete
- Phase C – Complete
- Pre-CE Marking - Complete
- Phase D Production Version – 2017
- Transitioned from OU to a commercial relationship with Applied Science & Technology Solutions Ltd

Strategic Partnerships

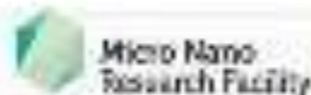


Framework Collaboration Agreements for Strategic Knowledge Partnerships

Signed Agreements



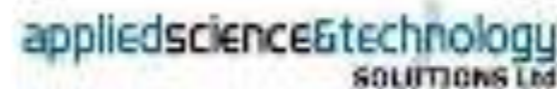
Agreements Being Processed



License for Use Agreements



Manufacturing License Agreement



Non Disclosure Agreement

Start-Ups



Oxford Micro Medical Ltd



Detection of *Helicobacter pylori*
in the developing world using
the urea breath test



Near real-time detection of
Bed Bugs
in hotels

Down to Earth

Space Solutions and Terrestrial Opportunities

- New challenges :
(size, mass, power, robust, shock/vibration, environmental, autonomy)
- Multi-disciplinary/multi-centre approach
- Partnerships (users and sub contractors)
- New solutions & new technologies
- New opportunities

Our journey, “sniffing” the solar system continues.....



The Open
University

**Why not
join us?**



'We're a team with a unique blend of multi-disciplinary backgrounds. Space missions have forced us to think outside the box and as a result we have collectively developed a successful approach to solving customer-led challenges. Basically, we are not scared of trying new things.'

Dr Geraint Morgan

Researcher in Space Science

#OUSpaceMonth