



PW – Sat

First Polish Satellite

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Supervisor of the Project

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S&T Subcommittee of COPUOS 15 February 2012

Warsaw University of Technology



Student Space Association



Student Space Engineering Scientific Group



**Space Research Center
of the Polish Academy of Sciences**



**Student Maciej Urbanowicz – Coordinator of the
Project**

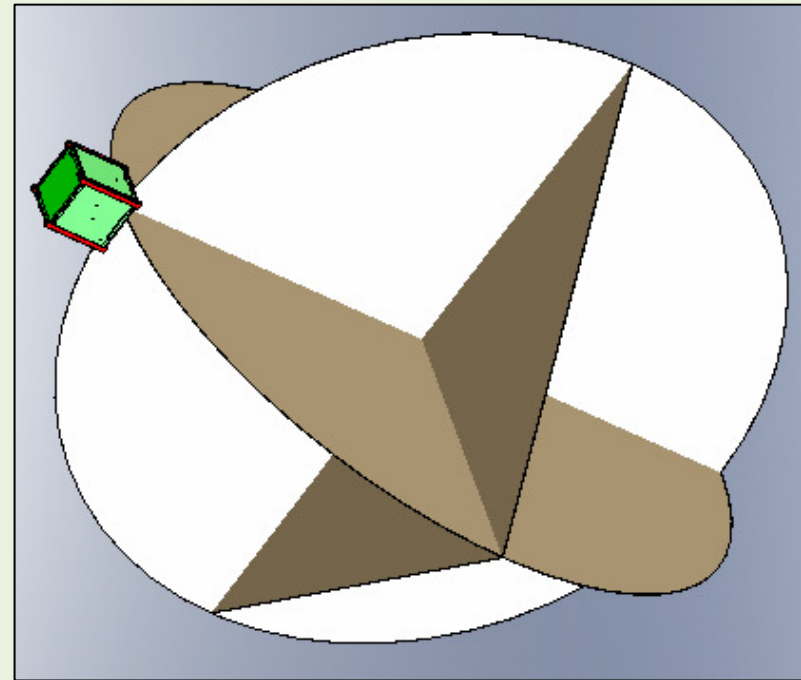
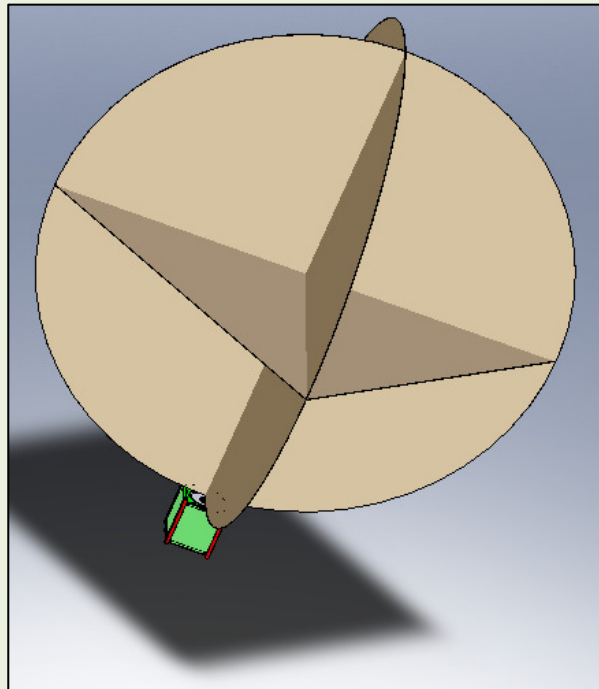
Mostly Financed by PECS ESA – Poland Agreement

Initial ideas and first attempts



PW-Sat

- First polish picosatellite (CubeSat)
- Mission goal: test of new method of intentional deorbitation



PW-Sat

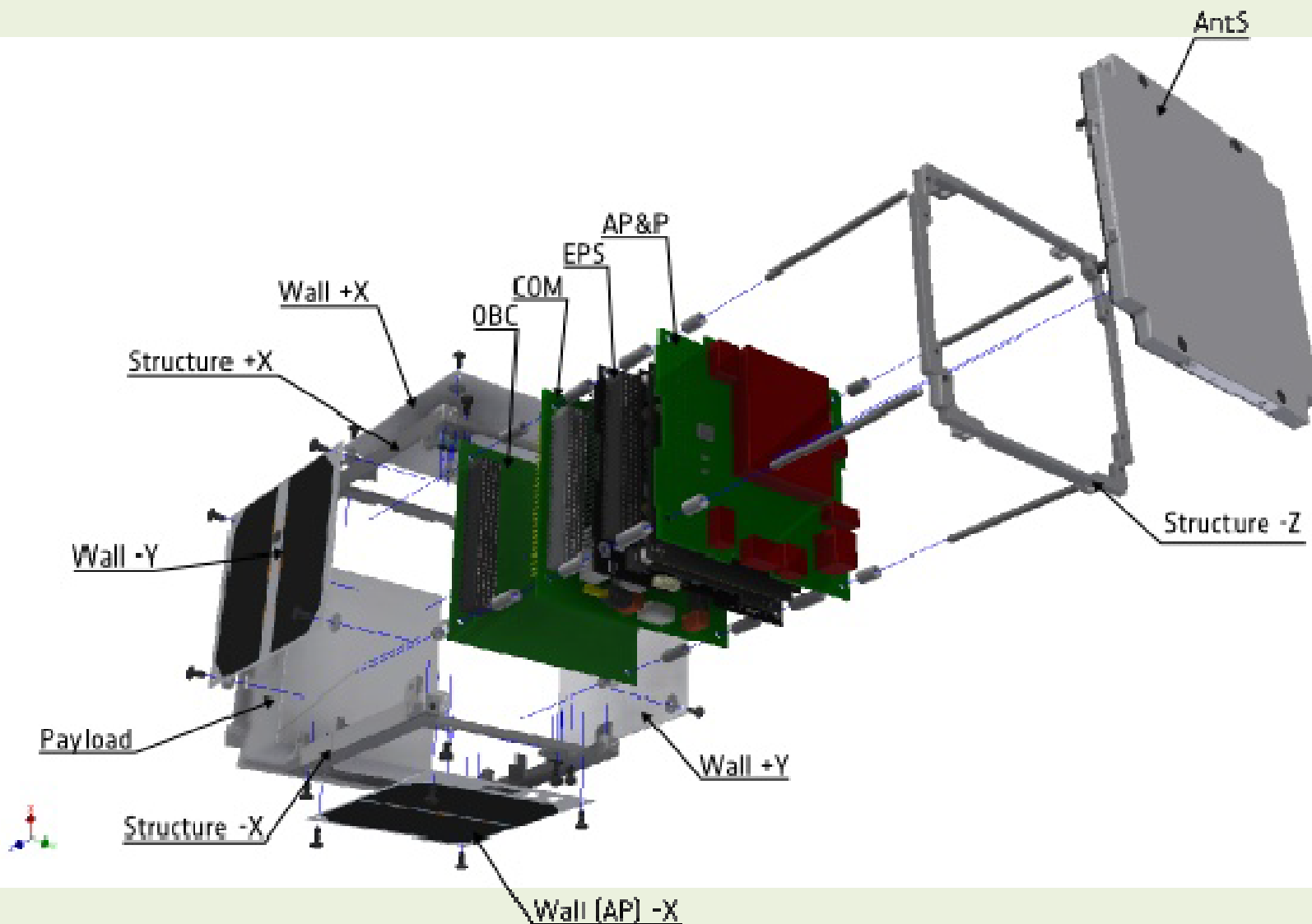
- Destined to deploy thin foil structure to increase satellite's face area

- The system could be used in more complex future space missions eventually



Final design of the PW-Sat

PW-Sat Structure

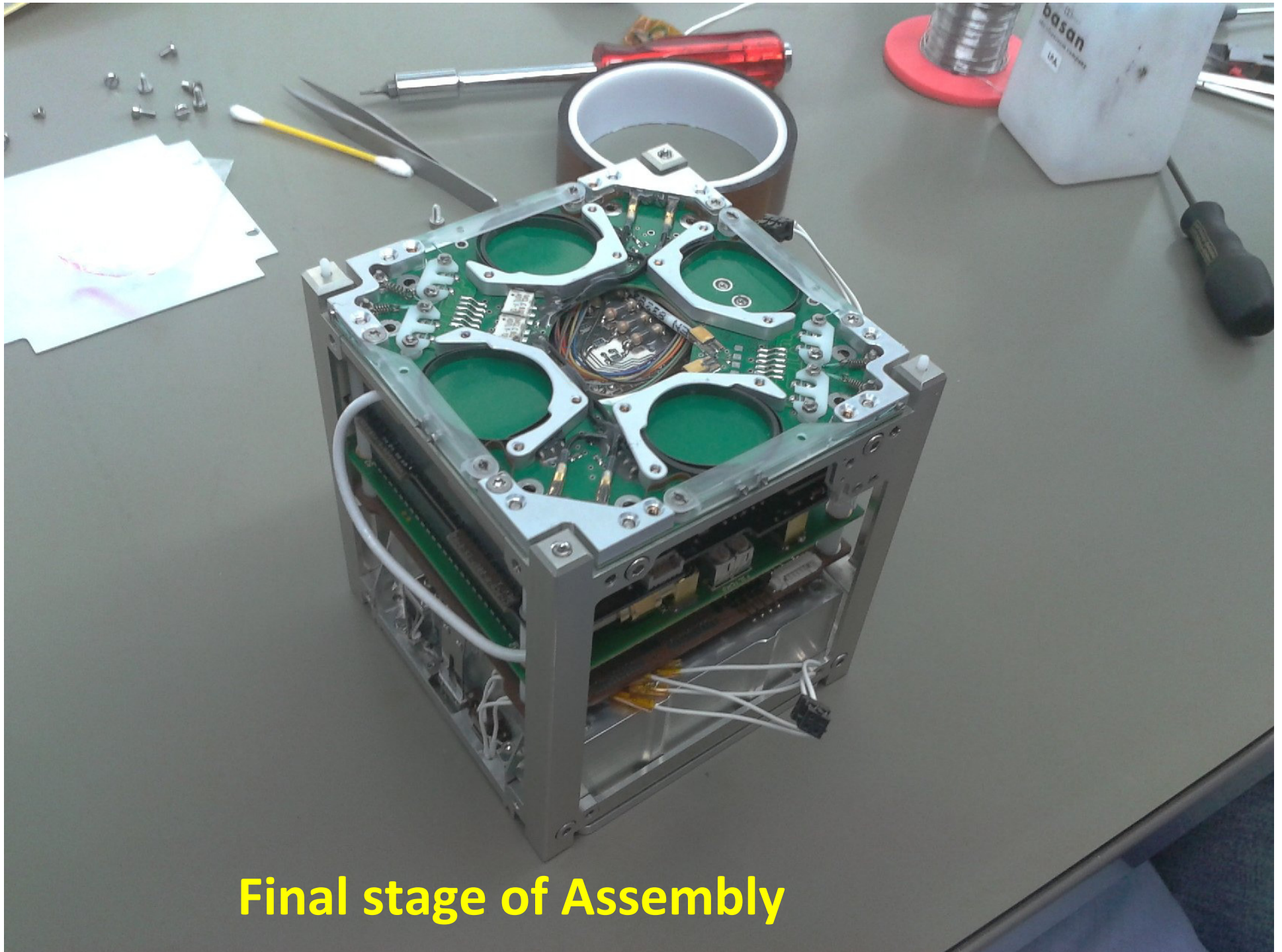




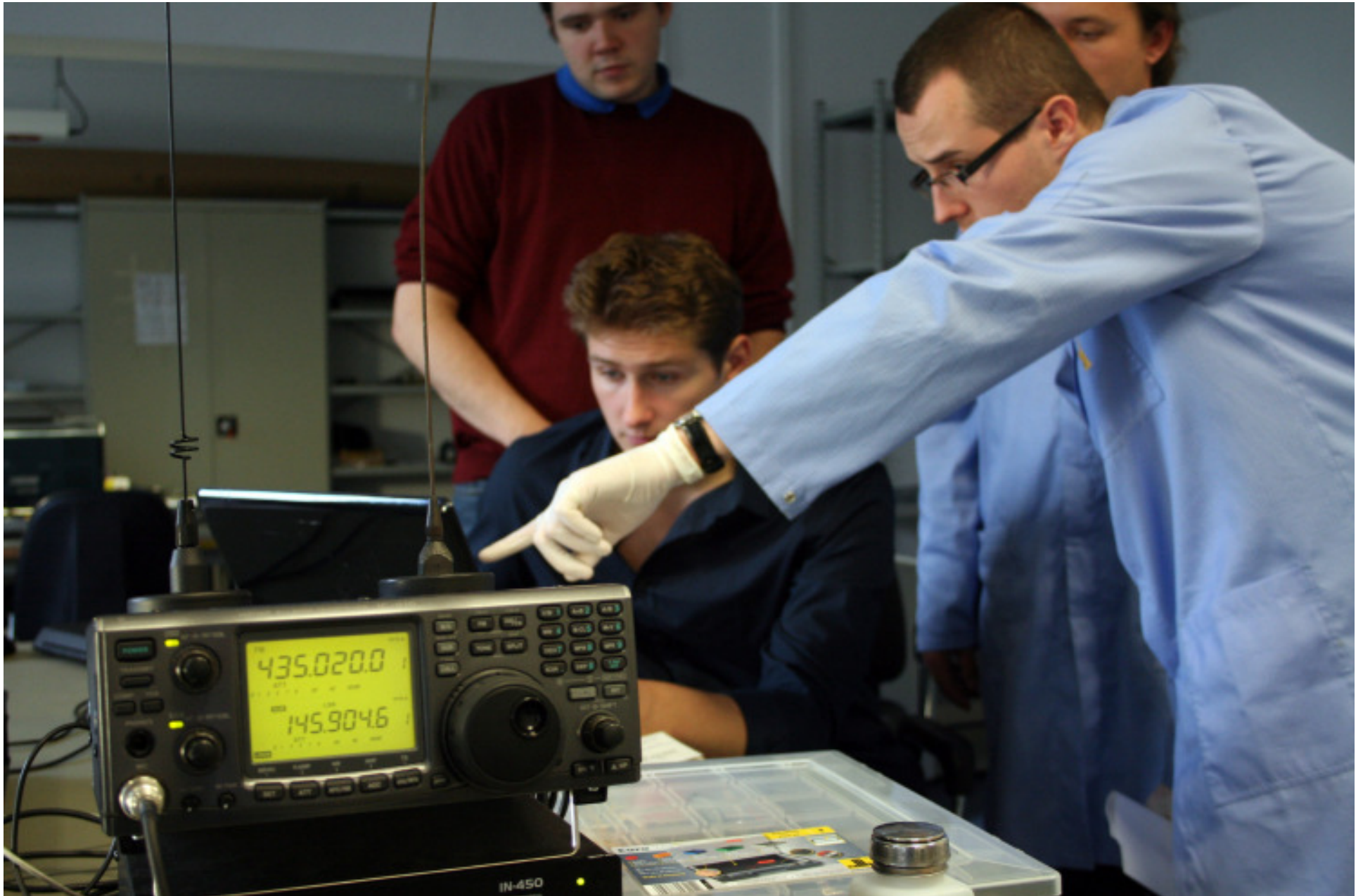
Assembly of the PW-Sat structure



PW-Sat team on assembly of the extendable structure



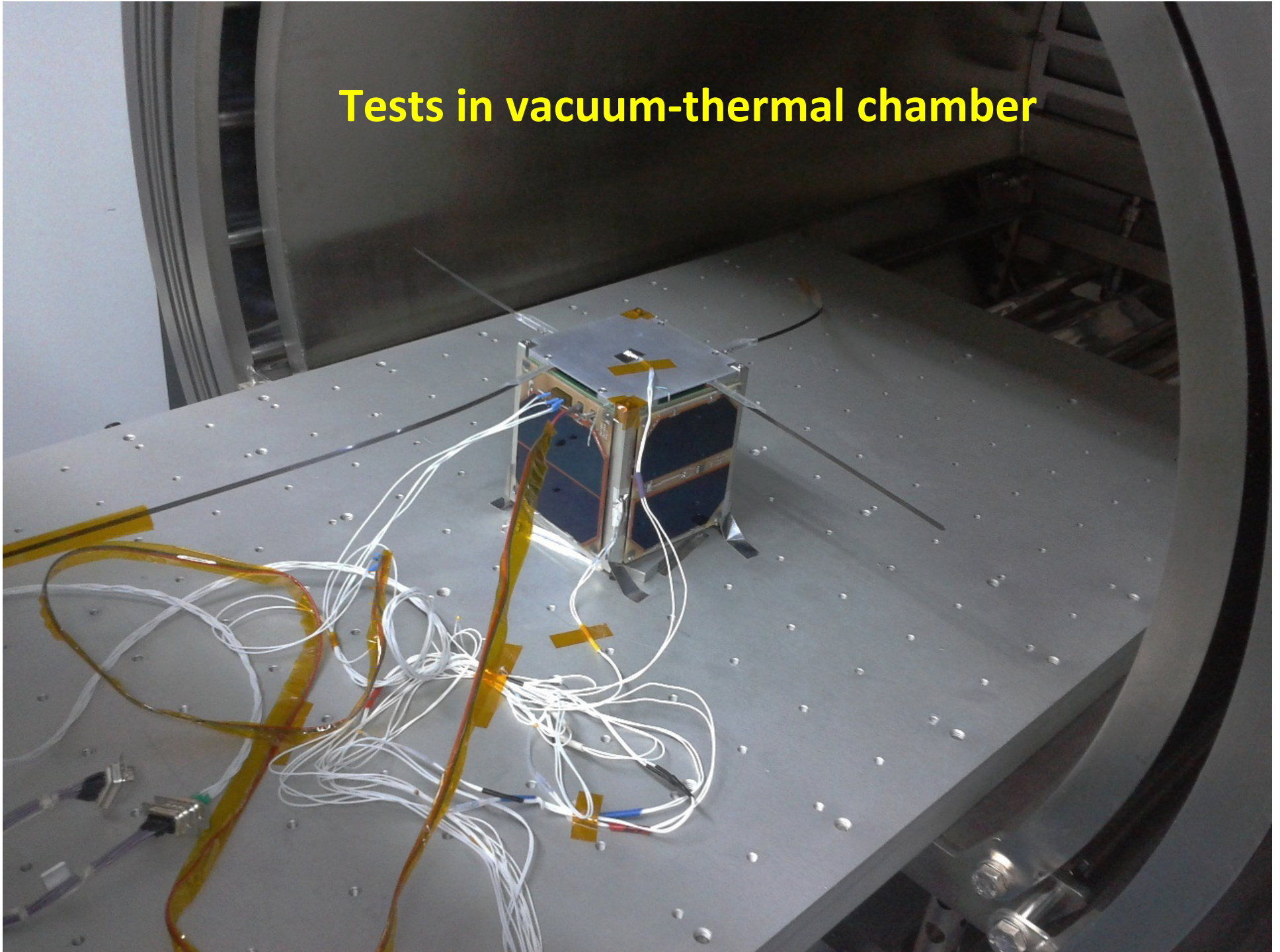
Final stage of Assembly



Tests of the PW-Sat

Adam Kostrzewa, Jan Kostrzewa, Maciej Urbanowicz, Tomasz Szewczyk. Credits: Andrzej Kotarba

Tests in vacuum-thermal chamber





PW-Sat at ESTEC



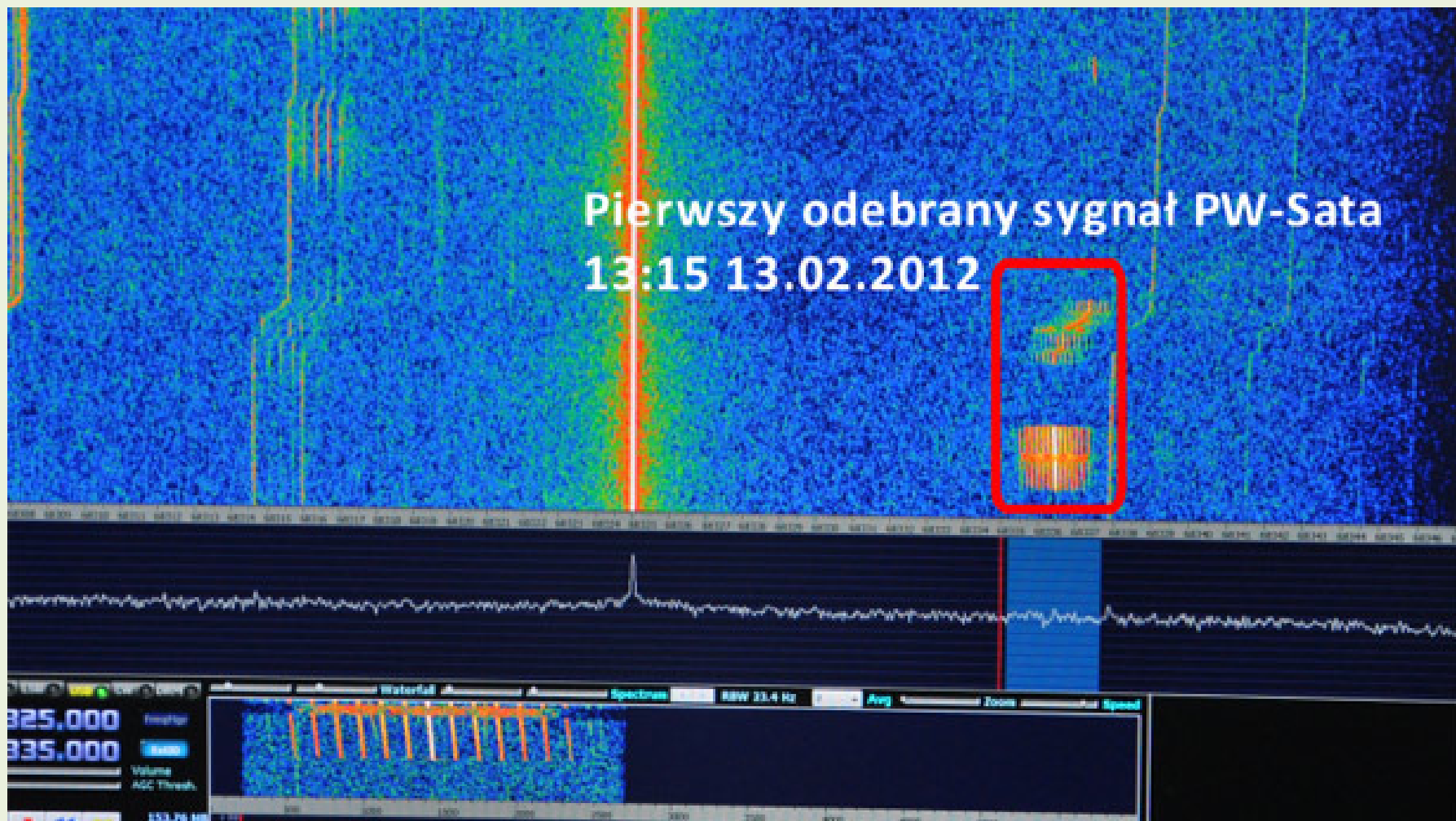
PW-Sat Integrated with P-POD

Integrated with the Payload of VEGA





VEGA – launch on 13 February 2012

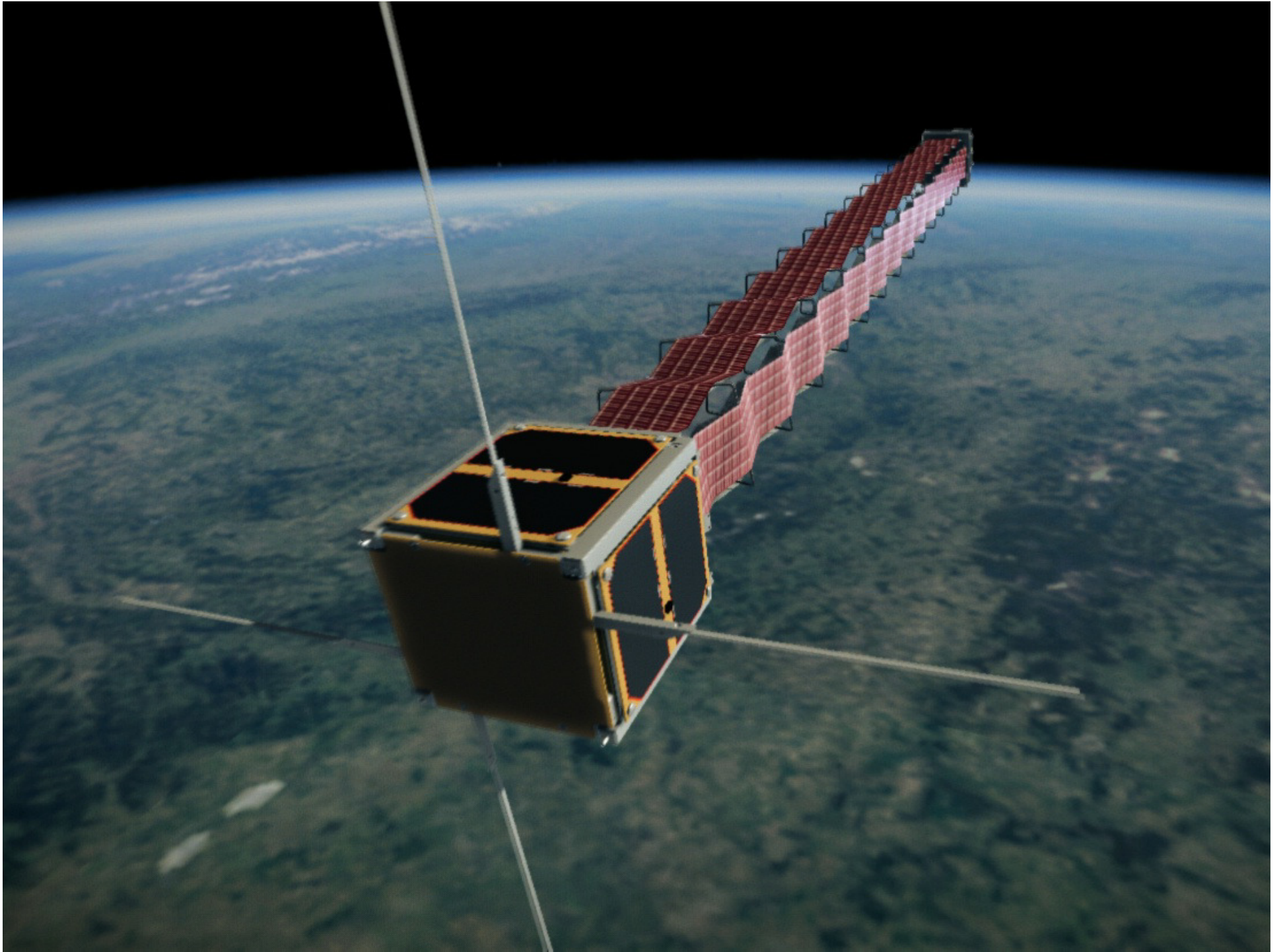


First signal detected
at the N. Copernicus Astronomical Center of PAS in Warsaw

From ESA statement: Student CubeSats start talking to Earth

Shortly after the seven ESA student CubeSats started their adventure in space on board the Vega launcher yesterday, the university teams and radio amateurs all around the world pointed their 'ears' towards space and started to receive the first signs of life from the tiny spacecraft.

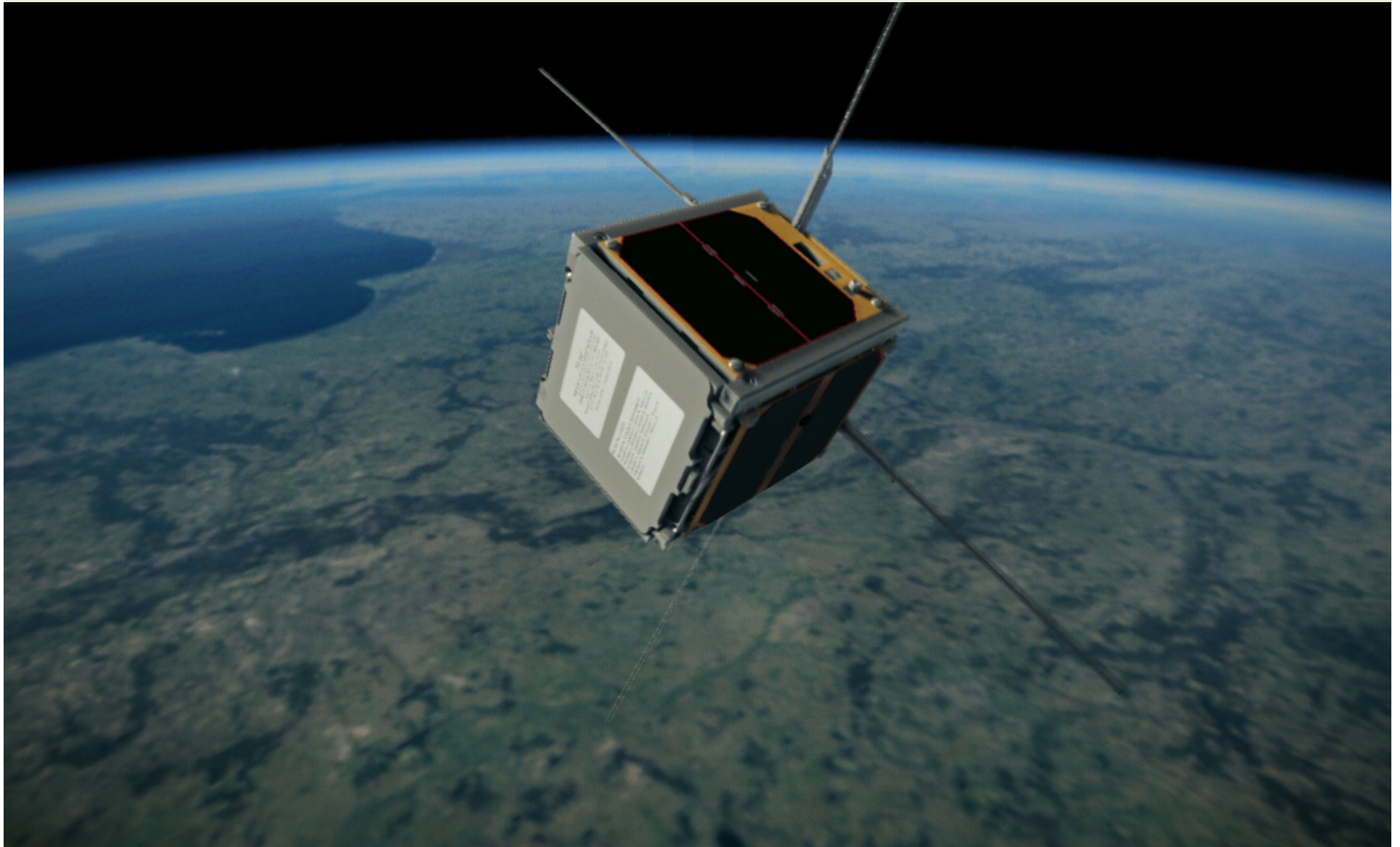
PW-Sat, the Polish student CubeSat, was also heard loud and clear only a few hours after the launch. The signals have been heard both by the team's ground station and by several radio amateurs from the UK, India, Germany and the Netherlands. The satellite is confirmed to be up and running, and its initial operations are commencing.





**Final faze of PW-Sat – Reentry and burnout in the atmosphere
One year after launch (approximately)**

PW-Sat



Two plaques placed on PW-Sat

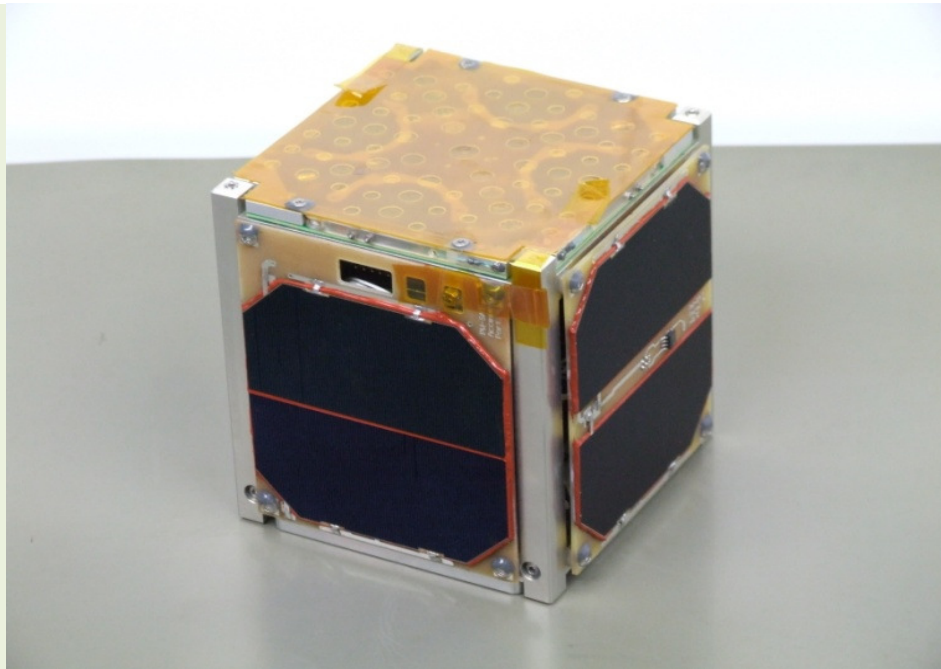
PW-Sat

THE FIRST POLISH STUDENT SATELLITE

WARSAW UNIVERSITY OF TECHNOLOGY
Students' Space Association
Student Space Engineering Scientific Group
SPACE RESEARCH CENTRE OF PAS
PW-Sat FM #1, October 2011


PW-Sat Team (2011):

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Kostrzewa A., Kostrzewa J., Kotarba A., Kotarski A.,
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Urbanowicz M., Wiśniewski Ł., Wolański P.,
Woźniak G.



Many more information
on the web site of:
Student Space Association
Warsaw University of Technology
Warsaw, POLAND
www.pw-sat.pl
and animation on youtube:

[PW-Sat Animation](#)

A satellite with solar panels is shown in space, orbiting Earth. The satellite is a small, rectangular object with several solar panels attached to its sides. The Earth's horizon is visible in the background, showing a blue ocean and a white cloud layer. The text is overlaid on the right side of the image.

PW-Sat

**pierwszy polski
satelita studencki
start 13 lutego 2012**

więcej informacji:
www.pw-sat.pl

WEB SITE of the PW-Sat