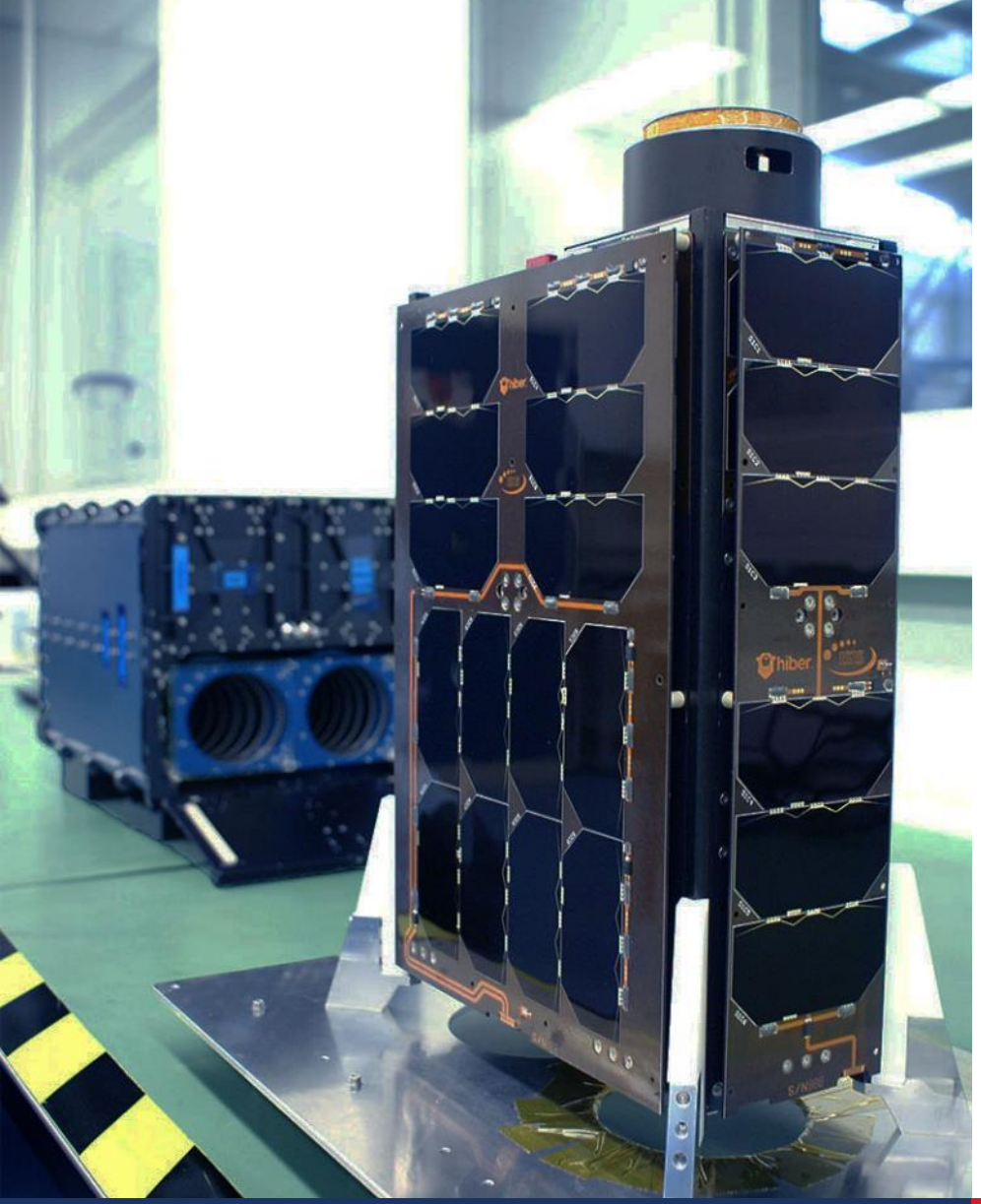
DISRUPTIVE SPACE SOLUTIONS FOR A BETTER TOMORROW

ISISPACE

Enabling offerings for HCD and Mission success

UNISEC GLOBAL
University Space Engineering Consortium



About us

- Founded 2006
- South African subsidiary founded 2012
- Vertically integrated company
- Integrated facilities for small satellite missions:
  - development labs
  - workshops
  - assembly labs
  - integration cleanroom
  - environmental testing facilities
  - satellite control room

Founded in
2006

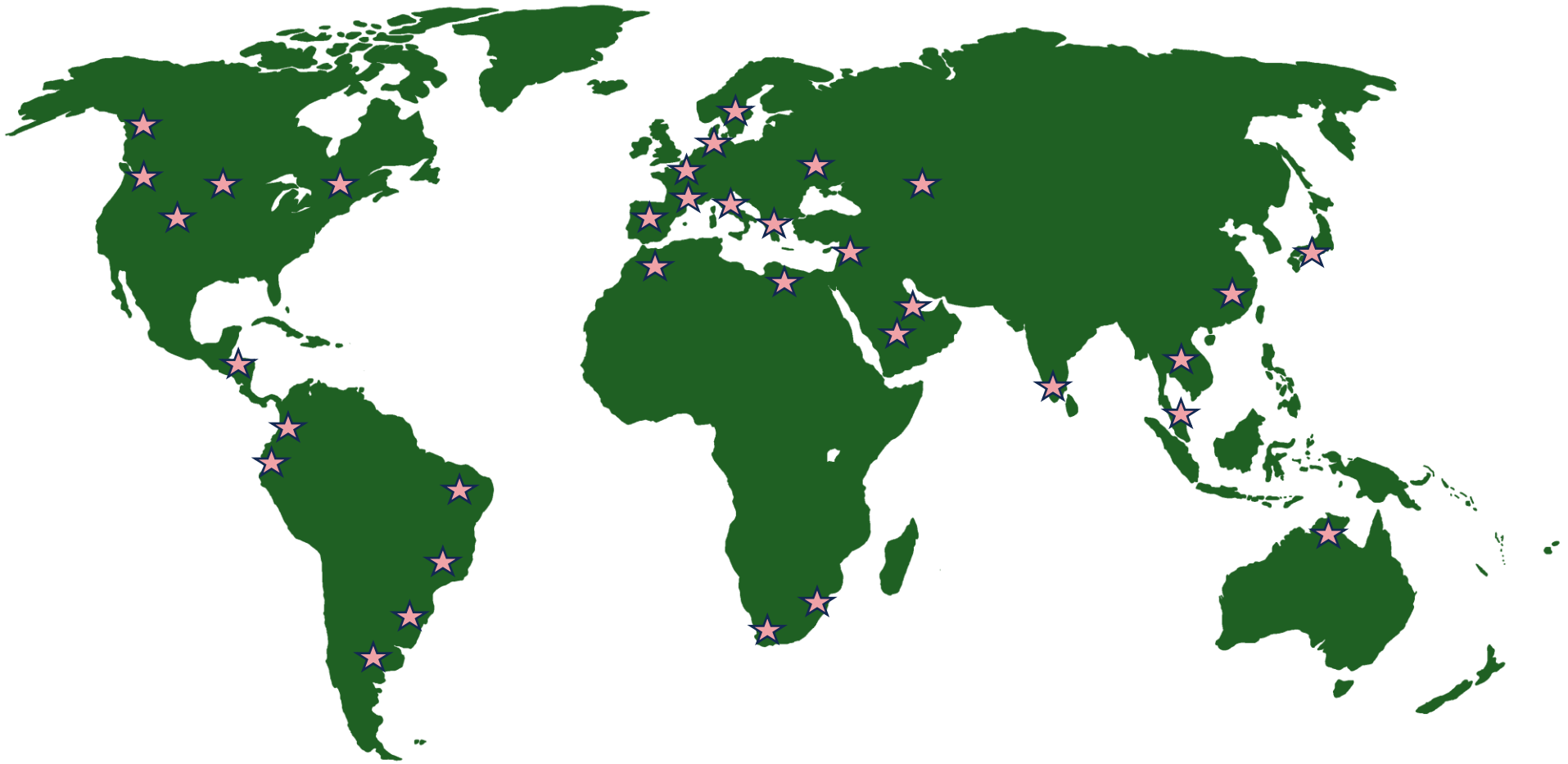
130+
employees

25+
nationalities

40+
missions enabled

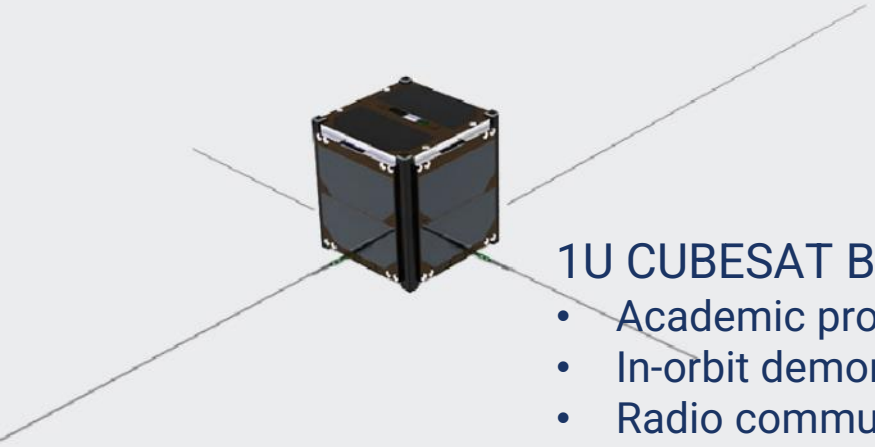
2000+
subsystems delivered

Collaboration spans the world



Founded in 2006	130+ employees	25+ nationalities	40+ missions enabled	2000+ subsystems delivered

CubeSat buses



1U CUBESAT BUS

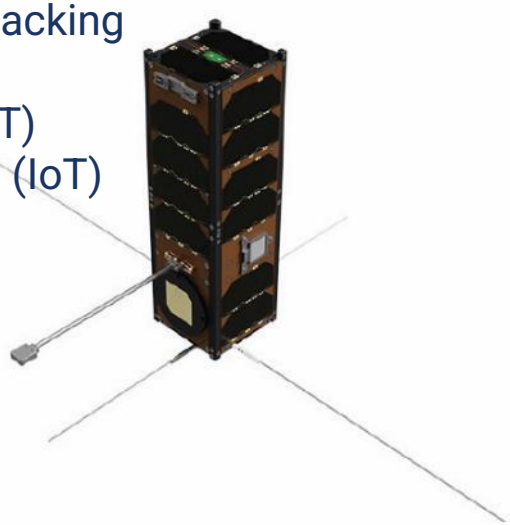
- Academic projects & experiments
- In-orbit demonstration missions
- Radio communications operations

6U CUBESAT BUS

- Signals Intelligence (SIGINT)
- Geospatial Intelligence (GEOINT)
- Internet-of-Things services (IoT)
- Air traffic monitoring (ADS-B)
- Earth Observation (EO)
- Space Science

3U CUBESAT BUS

- Maritime safety & vessel tracking
- Air traffic monitoring
- Signals Intelligence (SIGINT)
- Internet-of-Things services (IoT)
- Earth Observation (EO)
- Science Experiments.

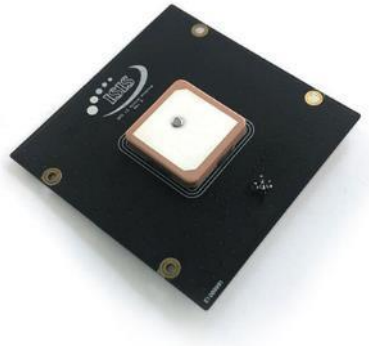


12U/16U CUBESAT BUS

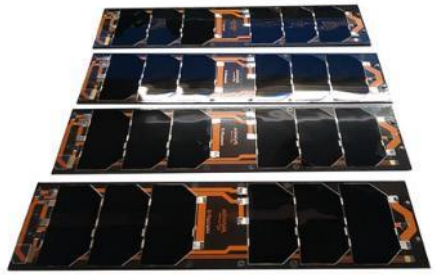
- Our latest generation subsystems and instruments, specially developed for demanding missions

Components (own and third party)










www.CubeSatShop.com

CubeSatShop

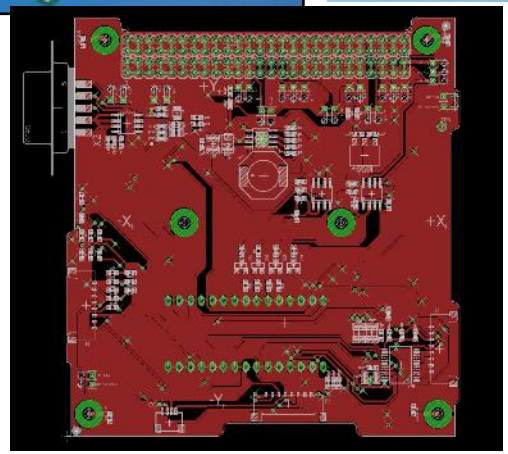
Training Solution 1- Groundstation

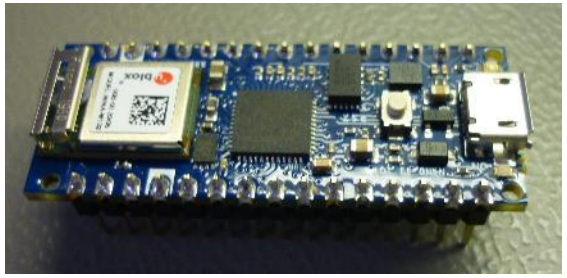
- Establishes Infrastructure needed for mission
  - VHF/UHF
  - S-Band
  - Start Combine with general laboratories – move to own production
- Allows monitoring of existing satellites
  - NOAA APT Weather satellites
  - Radio Amateur satellites
  - Funcube series satellites
- Focal point for creating interest on the ground

Training Solution 2 - GEM

- Ideal for team wanting to build and launch an own FM but not ready to start from scratch.
- Including EM versions of same hardware than FM
- Simplified antennas for laboratory work
- Software framework or own software
- Familiarization with MGSE, EGSE and processing needed for FM

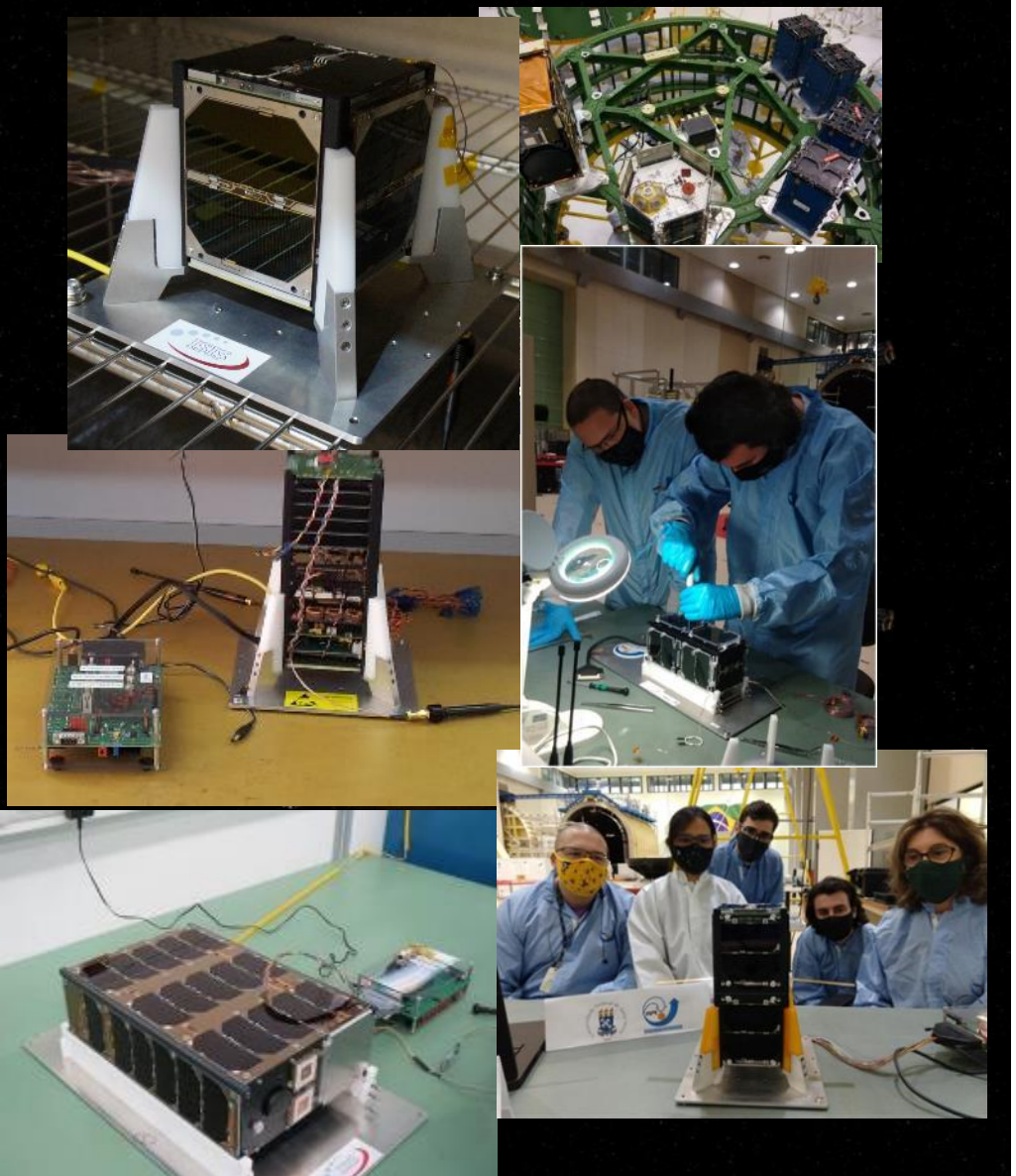
Training Solution 3 – Training node





- Lower cost solution for hands-on training
- Including EM structure and Electrical version of deployable antenna
- Centralized training node PCB
- Each students have own processor module to develop code on own computer
- Provided together with hands-on workshops introducing concepts as requested
- Optional payload design/development

i.e. Brazil



NCBR-1

- 2x Groundstations
- 1U GEM and training
- Payload development
- 1U FM (Launched 2014)

NCBR-2(Launched 2021)

- 2U GEM and training
- Development of own software, ADCS and payload
- 2U FM (Launched 2019)
- Own operations
- Own training program

ITASAT (Launched 2018)

- 6U
- Own integration
- Own and 3rd party hardware
- Own operations
- Follow on 6U programs

i.e. Nayif-1

Program supervised by Mohammed Bin Rashid Space Centre (MBRSC) in Dubai

Collaboration between American University of Sharjah (AUS), AMSAT-UK, AMSAT-NL and ISIS - Innovative Solutions In Space

Goal: to foster space sciences awareness and knowledge in the UAE (focus on hands on!)

Satellite components

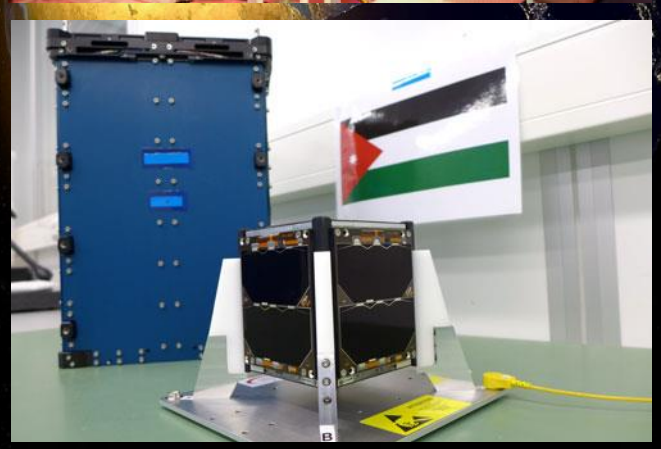
Hands-on AIV support

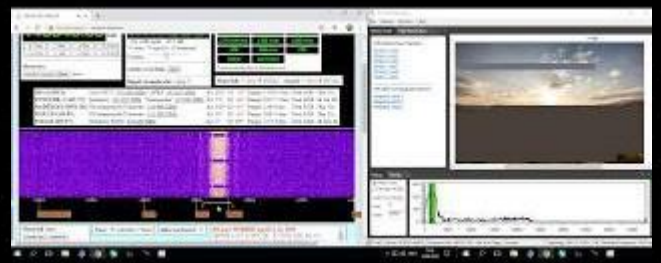
Customized/tailored training courses

Cubesat Groundstations

Launched By PSLV January 2017

i.e. JY1-SAT





Program supervised by Crown Prince Foundation in Jordan

Collaboration between Crown Prince Foundation, , AMSAT-UK, AMSAT-NL and ISIS - Innovative Solutions In Space

Goal: to create space awareness and knowledge in Jordan (focus on hands on!)

Satellite components

Hands-on AIV training (with Crown Prince present!)

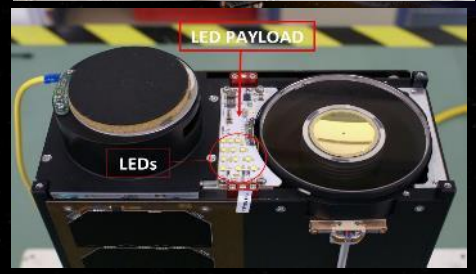
Cubesat Groundstation

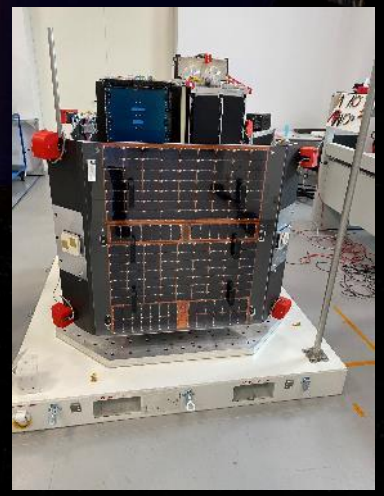
Downloadable images of Jordan

Voice recording of HRH Crown Prince Al Hussein Bin Abdullah of Jordan

Launched on Falcon 9 December 2018

i.e. Napa-2





Royal Thai Air Force

LED payload and ThrustMe thruster

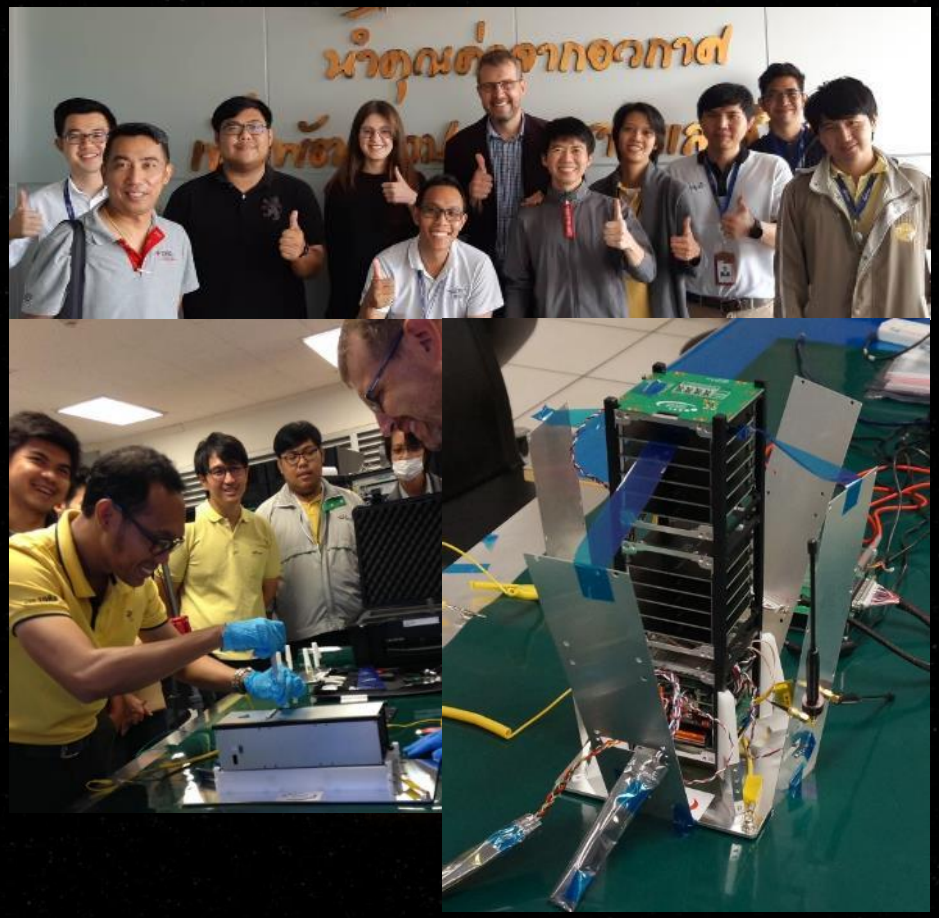
Multiple training courses

Client Groundstation

Launched via Transporter 2 mission from D-Orbit ION 30 June 2021!

In orbit calibration and support

i.e. GISTA



3U GEM

Customized 1 week training course

Introduction to Cubesat System Engineering

Introduction to AIV best practices

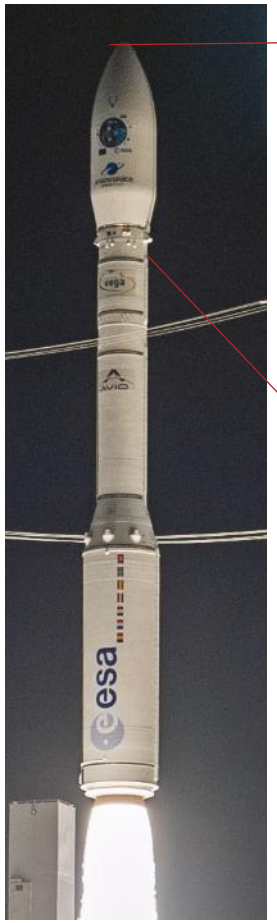
Introduction to each subsystem included in GEM

Software development tools and example code

Hands-on workshop including full disassembly and reassembly

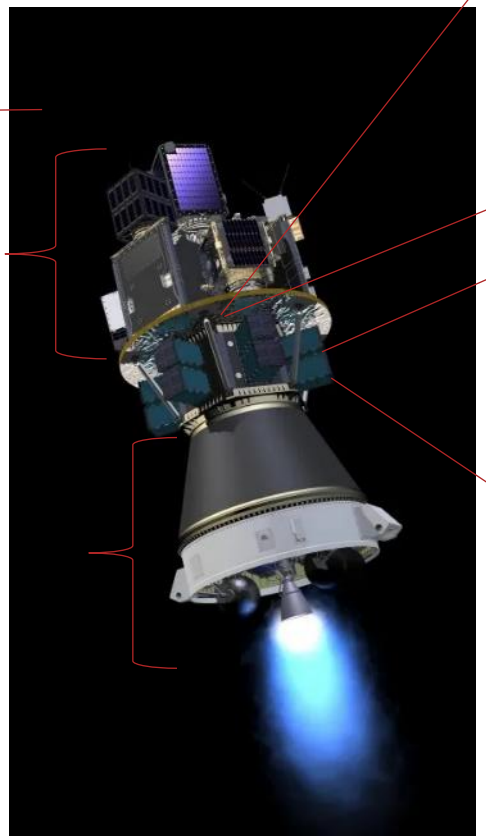
Training Solution 4 – Get it launched!!!

Launch Vehicle (LV)



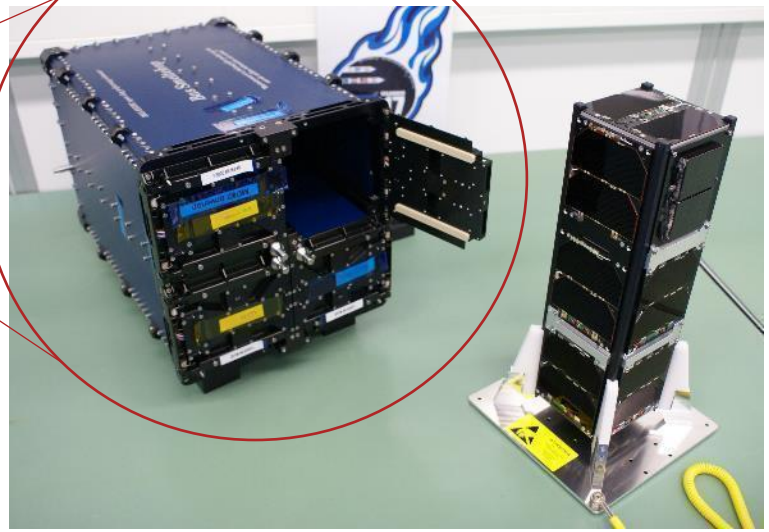
Primary Payload

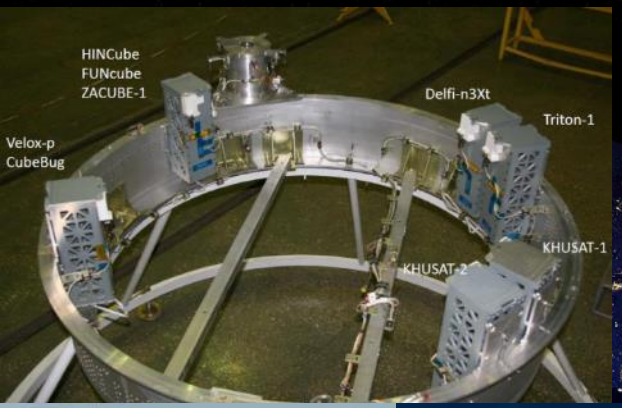
Upper Stage

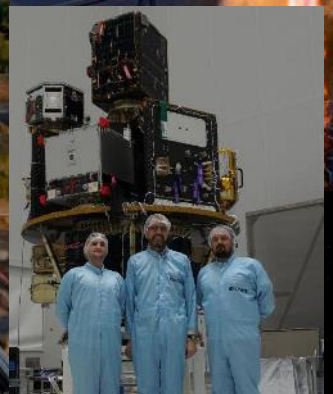


Time Sequencer with Command and TLM interface to LV

4 Door Quadpack containing 1-12 FM satellites







ISILaunch 01 : PSLV – 2009 - 4

ISILaunch 04 : DNEPR - 2013 – 14 (ZACUBE1)

ISILaunch 07 : DNEPR - 2014 – 21 (1S)

ISILaunch 17 : PSLV 2017 – 101 of 104 (5S)*

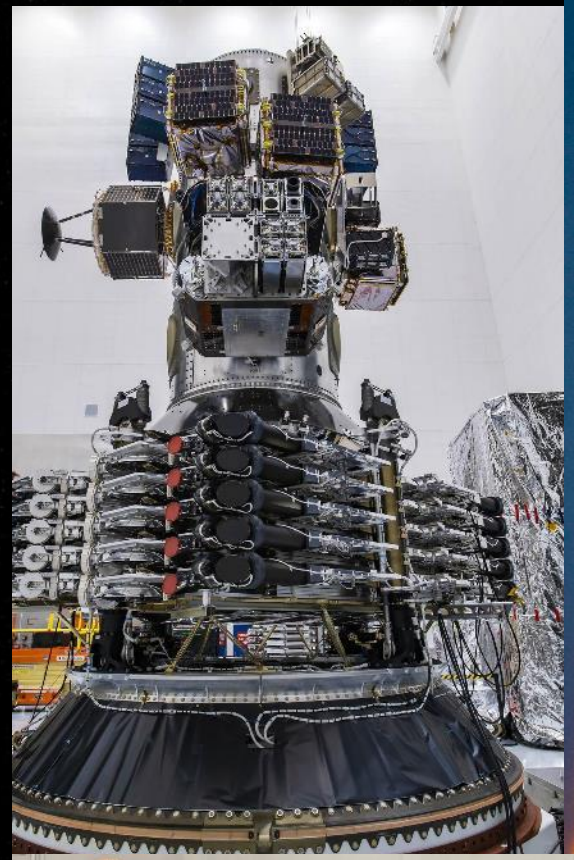
ISILaunch 11 : Soyuz- 2017 - 50 (3S)

ISILaunch 23 : PSLV 2018 – 26 (1S)

ISILaunch 24 : Soyuz- 2018 - 14 (ZACUBE2)

ISILaunch 26 : VEGA – 2020 – 46 of 53

NB: World Record!



ISILaunch 34 : Falcon 9 – Q1 2021 – 46 of 143*

- Response to Elon Musk promise to disrupt global launch market
- Three layers of circular rings featuring satellite ports

ISILaunch 36 : Falcon 9 – Q1 2022

- ISL manifest 65 Cubesats and 1 Microsatellite

Coming up…

ISILaunch 38 : Falcon 9 – Q4 2022

NB: New World Record!

Thank you and feel free to stay in touch

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