



# A newcomer in UNISEC: Switzerland

Alfonso Villegas





# Swiss Space Center Network

Board of Directors

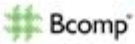
Swiss Space Center  
Association  
President: Dr. sc. phil. Hansruedi Lehmann  
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**EPFL** **ETH zürich**

Partner



- Institution
- Academic Member
- ▲ RTO
- Industrial Member



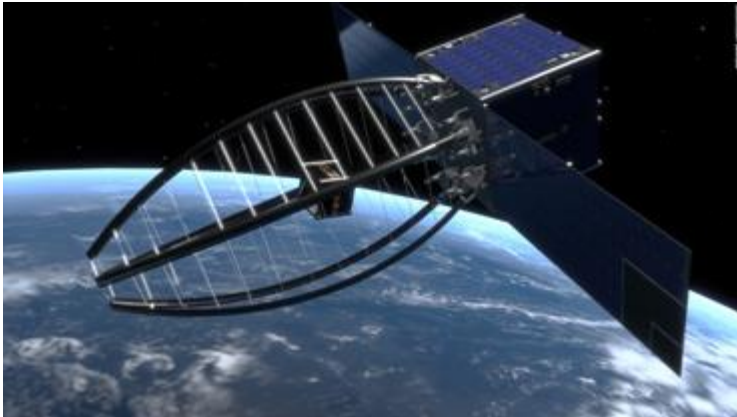
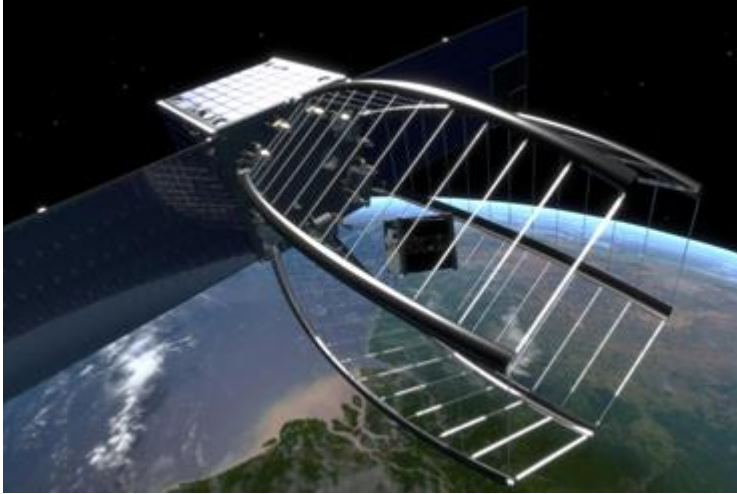


# SwissCube

## Switzerland's first satellite

- Launched in 2009
- 200 students involved in multiple swiss universities
- 10 years and still working!
- Avoided several impacts with debris





# CleanSpace One

- Bring SwissCube home
- Make new space sustainable
- Creation of a spin-off: Clearspace



# Astrocast

*For a secure connection to any IoT device on Earth*

- Global coverage
- 8 planes of 8 satellites in LEO
- Many applications:
  - maritime
  - environmental
  - mines, oil and gaz



# Spaceport America Cup



**EPFL**



**ETH**

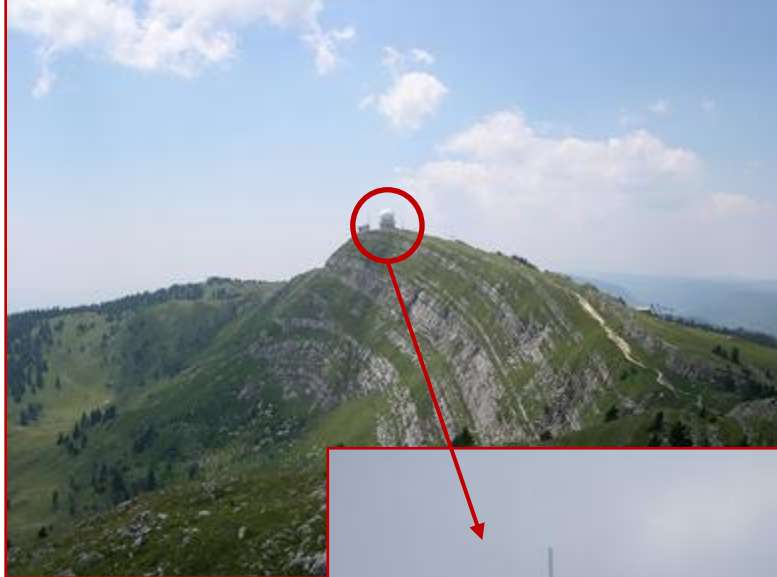
**EPFL**





TELECOM





# Asclepios

## *A do-it-yourself space mission*

- Simulation of a 7-day lunar mission
- 60 students across the world
- Partnership with EPFL, UNIL and ESA





# IGLUNA ESA\_LAB@

Objective: Build self sufficient habitat for extreme environment, e.g. Moon



4 Swiss teams

(over 16 across Europe)

EPFL Lausanne : autonomous vegetables production

ZHAW Zürich: Smart waste-based agricultural growing system

CERN Geneva: radiation monitoring

Bern University: amino acid detection by laser desorption mass spectrometer



# CHESS

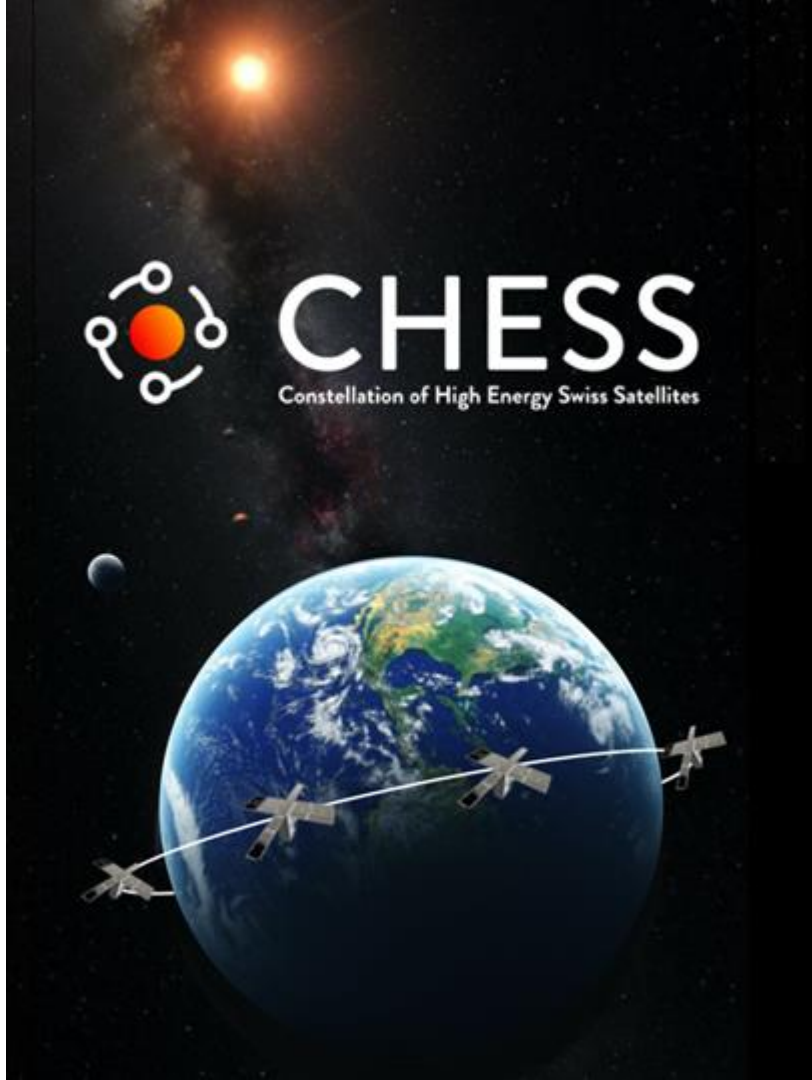


**Objective:** A CubeSat platform for In-Orbit-Demonstration of scientific instrument

**Payloads are chosen from research institutes**

**First payload: Swiss instrument**

**Second payload: open to international proposition**





# UNISEC and Switzerland



Glad and honored to be joining UNISEC

Look forward to actively participate into  
UNISEC-Global

And possibly host a UNISEC event..?



**Thank  
you!**

**Alfonso Villegas**