





# **VAN ALLEN FOUNDATION UNIVERSITY SPACE CENTER OF MONTPELLIER**

CONTRIBUTING TRAINING NANOSATELLITES SPACE IN FRANCE TALENT

TO THE RISE OF TOMORROW'S YOUNG





















































Since 2012, the Van Allen Foundation has been supporting the development of the Montpellier University Space Center. More than €2.8 million have been invested in the training of future space engineers, in technological innovation projects, and in the promotion and development of professional network in the field of nanosatellites.

We would like to thank all the founding members, donors and project collaborators for their support and their involvement.

None of this would be possible without them.

Jean Claude GAYSSOT,
President of the Van Allen Foundation

**STUDENTS 370** Welcomed to the CSUM



500K€
FVA budget/year



Public conferences and technical workshops



6 Nanosatellites 90%

Employability of students at the end of their curriculums



+ 2.8

Million euros invested in education and projects



« Astronaut Thomas Pesquet presented the MTCube nanosatellite at the Paris International Air Show 2019 »

# THE VAN ALLEN FOUNDATION

The Van Allen Foundation (FVA) is a partnership foundation of the University of Montpellier which provides strategic and financial support to the University Space Center of Montpellier (CSUM).

At CSUM students train on the different aspects of space jobs through the development of nanosatellites during their study projects and internships.

# **OUR ACTIONS**



CSUM nanosatellites projects funding.



Equipments, internships, theses and management staff funding.



Organization of public conferences, technical workshops, promoting and managing the Van Allen Foundation Partner's Club and the Friends of the Van Allen Foundation.

# THE GOVERNANCE



Jean-Claude GAYSSOT

President of FVA,
former minister



**Philippe AUGÉ**President of the University
of Montpellier



Claudie HAIGNERÉ Sponsor of FVA, former astronaut



Laurent DUSSEAU Director of FVA and CSUM

# Our founding industrial members



Pierre MAURICE CEO 3D PLUS



Arnaud DE ROSNAY
Space Systems Engineering
Director AIRBUS
DEFENCE & SPACE



Madhana KUMAR Chief Transformation & Strategy Officer EXPLEO



**Nicolas WUYAM** Space Affairs Director LATECOERE

# **OUR PROJECTS**



Nanosatellites provide a low cost and fast solution to test new technologies.

They facilitate access to space and pave way for new, innovative applications.

#### Learn more:

https://csu.edu.umontpellier.fr













Planned launch in 2021

**July 5 2019** 

June 23 2017

**February 13 2012** 

MTCube-2 et CELESTA

Ready for launch on

VEGA-C. First nanosatellites in MEO



**ROBUSTA 1B** 

ROBUSTA 1A

First french
nanosatellite in orbit



Planned launch end of 2021

ROBUSTA 3A MEDITERRANÉE In the South-East of French Mediterranean shore, the heavy rainfall called "épisodes cévenols" are caused by the accumulation of humidity at sea.

Observations that provide a better understanding of the humidity levels over the Mediterranean can potentially contribute to improved forecasting of intense rainfall.

CSUM is building ROBUSTA 3A MEDITERRANÉE and collaborates with prestigious partners – METEO FRANCE – IGN – ENSTA BRETAGNE – PORT DE SETE SUD DE FRANCE – to develop a mission that tackles this issue.

# **OUR STRENGHTS**



- **2. EXPERTISE** of the University of Montpellier in the field of radiation
  - **3. 15 YEARS OF EXPERIENCE** in nanosatellite development
    - 4. LEADERSHIP AND COORDINATION
    - **5. ACTIVE NETWORK** consisting of industrial groups, SMEs and academics
- **6. STRONGLY INVOLVED** in the issue of space debris and the sustainable use of space
- **7. PRO-ACTIVE** in the definition of good practices related to the FSOA (French Space Operations Act)
- 8. DEDICATED BUILDING with state-of-the-art equipment



# THE MONTPELLIER UNIVERSITY SPACE CENTER

Since 2006, the CSUM has been developing nanosatellites by involving students during their internships and their study projects.

Supervision is provided by CSUM engineers, academics and industrials.

#### **Concurrent Design Facility**

A collaborative work tool that simulates all aspects of a mission to evaluate its feasibility

2

#### Mission control center

Monitoring the evolution of the missions in real time



#### Ground stations (S-band and UHF)

Communication with satellites by radio frequency link



#### **Clean room**

Controlled environment for integration of nanosatellites. Welcomes students from partner's educations to train them in AIT (Assembly, Integration and Tests)



## Thermal vacuum chamber (TVAC)

Optimized for testing nanosatellites

# ACTIVITIES CENTERED UPON NANO-SATELLITES PLATFORMS AND SYSTEMS

With its own 1U and 3U platforms, the Space Center offers the possibility for end users to design complete missions, embark payloads or perform technological validation in orbit.

The CSUM offers turnkey solutions from feasibility study to satellite operation. For collaborative projects, with other CSUs, it conducts upstream studies on 6U and 12U projects.

# **INNOVATIVE TRAINING COURSES**

Under CSUM impulse, two new university courses have been created:

A Bachelor degree program in Assembly, Integration and Tests (AIT), at the IUT of Nîmes

A Post-master's Professional degree in Space System Engineering (DSS), carried out by Polytech Montpellier, at the IUT of Nîmes

These courses are full time or work-study programs and serve as a basis for the training of managers, engineers and technicians of emerging countries wishing to initiate a space program.



# **HOW TO MAKE A DONATION?**

# MAKE A DONATION From 1 €

Join the University Space Adventure

# BECOMING A FRIEND OF THE FOUNDATION From 1,000 €

Do you dream of Space? Do you want to take part in the space adventure in our region? Make your dream come true



# JOIN THE PARTNER'S CLUB Membership amount depending on turnover

Join a privileged network of information and discussions about university nanosatellites



# **BECOMING A MAJOR DONOR**

Consult us



### **BECOMING A FOUNDER MEMBER**

Consult us Be at the heart of decisions

#### Tax advantages

COMPANIES: 60% of the donation deducted from business tax (up to 0.5% of turnover excluding VAT) (jusqu'à 0,5% du CA HT) INDIVIDUAL: 66% of the donation deducted from income tax IFI: 75% of the donation deducted from property tax

# CONTACT

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