

JOIN THE VAN ALLEN FOUNDATION : A VISION, A NETWORK

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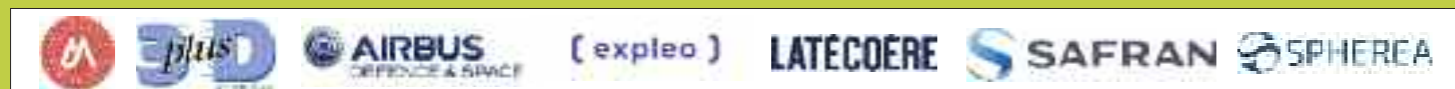


Nanosatellites have opened up a new space era where space satellites are conceived and designed differently. Space has become accessible: first, to students, trained in the field, and second, to new industrialists, even those who are not from the space sector and who have never thought about it. The Van Allen Foundation was created to aggregate all the players, thereby demonstrating that such projects enable Montpellier University to train skilled human resources, and that young students can learn excellence at university. Our ambition is to make Montpellier University Space Centre an international benchmark centre for nanosatellites.

*Michel COURTOIS, President of the Van Allen Foundation
Former Director of CNES Toulouse and ESA/ESTEC, Member of the Technologies Academy*

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Founder Members



Montpellier University 6 th largest university in France	3D PLUS World leader in 3D electronic components for the space industry	AIRBUS Defence & Space 2 nd in the world in the space sector	Assystem Technologies International reference group in engineering, quality and digital solutions, innovation partner for space sector players.	LATÉCOÈRE Interconnection Systems Branch World-class leader in interconnection systems for aeronautics and space (1 st for avionics racks, 2 nd for electrical harnesses, 1 st in Europe for satellite wiring)	ZODIAC DATA SYSTEMS (Safran Group) Global specialist in high-tech space and aeronautical systems including communications telemetry and instrumentation	SPHEREA A recognized worldwide player in testability solutions and critical systems continuous improvement paving the way of predictive solutions
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or



Become a friend of the foundation: (1.000€/year)
local support
- corporate -

or



Join the Partners Club (from 5000€*/year over 3 years -*depending on the corporate turnover):
the choice of network
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Become a Founder Member: the strategic choice (get in touch)
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Corporate donor: 60% of your donation deductible from your business tax (up to 0.5% of turnover excluding VAT)
Private donor: 66% of your donation deductible from your income tax
Private donor subject to the IFI tax: 75% of your donation deductible from the wealth tax



MONTPELLIER UNIVERSITY
PARTNERSHIP FOUNDATION



SUPPORT
MONTPELLIER
UNIVERSITY,
FRENCH LEADER
IN UNIVERSITY
NANOSATELLITES

Innovation | Training | Networking

CREATING OUR SPACE
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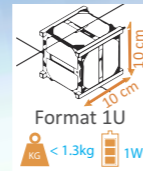


A HISTORY, A DUO

The nanosatellite sector was launched in France in 2006 by Montpellier University (UM), equipped with:

. the 1st French University Space Centre, the "CSU Montpellier-Nîmes", where the students develop nanosatellites from A to Z, supervised by the faculty in collaboration with industrialists.

. the Van Allen Foundation, which offers strategic and financial support. The goal is to raise new funds, especially through corporate philanthropy, in order to continue the adventure.



***1U** 1Unit nanosatellite (or CubeSat 1U):
10 cm profile cube . 1 kg . 1 Litre

****3U** 3Unit nanosatellite (or triple CubeSat/
CubeSat 3U): equivalent to three stacked 1U



2013



2016



2017



2006. 2012. 2014. 2015



2012



2015



2015



2016

Year	2006	2011	2012	2012	2013	2014	2015	2015	2016	2016	2017	2018
CSU	1 st 1U* ROBUSTA nanosatellite (2006-12), in the context of the CNES EXPRESSO call for projects, CNES funding	1 st French CSU Creation of 1st French University Space Centre	ESA launch of ROBUSTA, 1 st French nanosatellite in orbit	2 nd 1U* ROBUSTA 1B nanosatellite (2012-15), CNES JANUS project	1 st 3U** MEDITERRANEE nanosatellite (2013-2020) CNES partnership for Météo France	3 rd 1U* MT Cube nanosatellite (2014-19), ESA partnership	4 th 1U* CELESTA nanosatellite (2015-2018), CERN partnership, CERN funding	Space Care UM, the only French training entity which is a member of the CNES Space Care group (saving space from debris. LOS law)	1 st French "University Space Centre" building, supported by the Occitanie Regional Council, housing the CSU, FVA, business organisations (Intespace, Systeia, Tecnalia France, Trad) SATT AxLR and LRI incubator	New UM programme: Master in Space Systems Engineering, undergra- duate to Master level, with internships from the 1 st year at the CSU	PSLV launch of ROBUSTA 1B, 2 nd UM nanosatellite in orbit (from India)	ROBUSTA1B 1 year of scientific data collected in orbit

Year	2012	2013	2013	2014	2014	2015	2016	2017	2018
FVA	Creation of the Van Allen Foundation	Van Allen Foundation - CNES funding of 1U ROBUSTA 1B	Van Allen Foundation - CNES funding of 3U Méditerranée	Van Allen Foundation - ESA funding of 1U MT Cube	Zodiac Data Systems, new founder member of the Van Allen Foundation	Launch of the Van Allen Foundation Partners Club	Latécoère, new found- er member	Sphera, new founder member	Expleo new founder member

TECHNOLOGICAL INNOVATION

Nanosatellites provide a low cost and rapid solution to test new technologies in space for Industry and Research. They enable data collection for a range of potential applications: humanitarian, environmental...

INNOVATION at the University Space Centre

. 2 nanosatellite lines: 1U and 3U CubeSat format
Expert grasp of the technology: nanosatellites developed entirely in-house and launched into orbit

. International collaboration



. CSU resources available to industry: resources for testing, construction and satellite-related systems



STRATEGIC SUPPORT by the Van Allen Foundation

. Nanosatellite development strategy
by the Foundation's Board of Directors, including personalities from CNES, ESA and JPL/NASA space issues

. Privileged access for the industrial partners of the University of Montpellier research (laboratories, platforms) and training network



. Support for institutional relationships and international partnerships

. Promotion of the nanosatellite sector

PRACTICAL TOP-FLIGHT TRAINING

The CSU welcomes students developing nanosatellites for internships or study projects. The students work on the different aspects of space missions: upstream studies with the design facility centre, development and launch of satellites, and operations in orbit.

PROJECT-BASED CULTURE at the University Space Centre

. All levels and all disciplines: from undergraduate to post-doctoral, notably in mechanics, electronics, computer science...



. Nanosatellites as applications of excellence

- Developing sought-after skills: systems engineering, team projects management
- Working methods used in the profession
- Interactions with space agencies and Industry: projects, contribution to training courses, participation in trade fairs

. Future operational employees at the end of their study programme
Job opportunities in the Aeronautics & Space industry (former students at Airbus, CNES, 3DPlus...), as well as in energy, telecoms, transport...

FINANCIAL SUPPORT by the Van Allen Foundation

. Providing funding for study programmes
post-doctoral students, doctoral students, student internships, Master and DUT programmes... and supervision by CSU staff (Technical Director, ground station engineer, radiocommunications engineer, technician)

. International: sponsoring 3 students at JPL/ NASA for their theses

. Funding for project technology
50% launch of ROBUSTA 1B, materials...

> 2,5 M€ already invested (or 350,000€ /year) by the Van Allen Foundation in training & projects