
NANOSTAR Space Mission Predesign Challenge Second edition: Online registration is open!

NANOSTAR is a European project to support the training and development of **student nanosatellites** in the south west of Europe.

This NANOSTAR challenge consists in predesigning a nanosatellite that will perform an ambitious scientific mission.

September 2, 2019

The goal of the mission is to verify the survivability in space of a marine photosymbiotic species of worms (Roscoff worms), which may one day play an essential role in the creation of artificial ecosystems for deep space exploration missions.

The scientific payload will monitor the metabolism of the worms and their efficiency for urea and air recycling via video observations and measurements.

Student teams must create a preliminary design of a complete space system to achieve this mission, using the tools and methodology provided by NANOSTAR.

How to participate

Students participate to the NANOSTAR challenges in teams. We encourage the participation of multidisciplinary, mixed teams of about 5 women and men. Students can participate with their university colleagues or form an international group that spans several NANOSTAR institutions.

Each team will be assigned an advisor who will be the point of contact with the NANOSTAR network. An Evaluation Committee, composed of members from all NANOSTAR institutions, will evaluate the received designs and select the winning proposal. The awarded design will be extended and serve as the baseline for the future NANOSTAR challenges, which will focus on the detailed development and testing of parts of a nanosatellite and related facilities.

Registrations via this link: <https://nanostarproject.eu/student-challenges/registration-predesign-challenge-second-edition/>

Awards

All participating students will receive a Participation Diploma from NANOSTAR as proof of the work carried out in the Design Challenge.

Other awards, which may comprise economic and/or material prizes (e.g. attendance to an International Conference to present their work, or a visit to a space center), may be awarded to the First Team, and will be defined soon and announced on the NANOSTAR website.

Registration open: September 2, 2019 – October 30, 2019

Challenge start: September 2, 2019

Deliverable submission deadline: January 5, 2020

Evaluation period: January 6-24, 2020

Winner Announcement: January 30, 2020

NANOSTAR project

The nanosatellite standard is today used by many universities and companies to attract the best students and engineers, that supports the universities and industries competitiveness.

Several countries from the north of Europe have strongly invested in this approach, creating a commercial offer that has become very well positioned in the market. However, Southern Europe, despite its strong influence in the space sector, has only 14% of the projects in the European nanosatellite sector and no company created in this field.

NANOSTAR project is funded by the [Interreg Sudoe Programme](#) through the European Regional Development Fund (ERDF).

The consortium is composed of 2 aerospace clusters, 7 universities plus 3 ESA-BIC centres as associates, in **France, Spain and Portugal**:

- Aerospace Valley (Project coordinator) www.aerospace-valley.com
- Madrid Aerospace Cluster www.madridaerospace.es
- Institut Polytechnique de Bordeaux www.bordeaux-inp.fr
- Institut Supérieur de l'Aéronautique et de l'Espace www.isae-superaero.fr
- Université de Montpellier www.umontpellier.fr
- Universidad Politécnica de Madrid www.upm.es
- Universidad Carlos III de Madrid UC3M www.uc3m.es
- Universidade da Beira Interior UBI www.ubi.pt
- Instituto Superior Técnico <http://tecnico.ulisboa.pt>

Associates:

- ESA BIC Sud France
- Instituto Pedro Nunes - Associação para a Inovação e Desenvolvimento em Ciência e Tecnologia www.ipn.pt
- Fundación para el Conocimiento madrimsd en su función de ESA BIC España www.madrimsd.org



For more information, please contact:

- Marion GARITEAU gariteau@aerospace-valley.com
- Web: www.nanostarproject.eu

Project funded by the Interreg Sudoe Programme through the European Regional Development Fund (ERDF)