

Welcome to the site of the Student Aerospace Challenge

22 teams still in the running for the 18th edition of the Challenge.

For this new exercise, we introduced the possibility of working **on an orbital vehicle servicing low-Earth orbit**, while retaining the two suborbital vehicles previously proposed. As every year, the work packages have been reviewed.

The website has been modified to create a "**My Challenge**" tab, which should make it easier for participants to find useful information during the exercise. An "FAQ" tab will soon be available.

Here are the key dates for 18th exercise:

- From 3rd to 31th October 2023: application period
- 16th November 2023: deadline for sending Work Package sheet
- 14th December 2023: deadline for sending first progress report
- 10th January 2024: deadline for validation by Experts
- 29th February 2024: deadline for sending second progress report
- 7th March 2024: deadline for answer by Experts
- 26th March 2024 : webinar about the "Suborbital Day"
- 4th April 2024: deadline for sending a 10-line summary explaining the work done
- 18th May 2024: deadline for sending final report, poster and bilingual work summary

- 27th June 2024: « The Suborbital Day », a special event, gathering students and Partners, ending the exercise

The Challenge, proposed by Astronaute Club Européen (ACE) and its industrial and institutional partners (ArianeGroup, Dassault Aviation, the European Space Agency and Musée de l'Air et de l'Espace), allows students to participate to the study of a manned suborbital vehicle which is a reusable vehicle designed either for local suborbital flights or for high speed, long-range flights, or a space manned vehicle servicing Low Earth Orbits.

If you are an undergraduate or a graduate student from a European college or university, you are given an opportunity to create a team with fellow students and to work on a meaningful project covering many topics (technical, medical or legal aspects, etc...). You can put your knowledge into practice within the framework of a project (linked to your core activity or in complement) concerning an evolving field.

Go through this web site, speak about it around you, form your team and send your application to the Selection Committee to possibly, as hundreds of engaged students during former years, actively take part in this adventure while strengthening your ability to join the professional world.

Good reading and see you soon!

 [Key dates](#)

 [WPs - Overview](#)

 [Working instructions](#)

[2022-2023 booklet](#)



Challenge News

13/06/2023

Results for the seventeenth exercise

Among the 19 registered teams for the seventeenth exercise of the Student Aerospace Challenge, 14 teams returned their report. Evaluation by the Steering Committee of the Challenge, composed of partners and experts leads to the following prize list:

- SALTO (Politecnico di Torino - Turin, Italy) received **ESA Grand Prix** for its study related

to radiation protection,

- InTOstellar (Politecnico di Torino - Turin, Italy) was awarded by the **ArianeGroup Prize** for its work to design reusable propulsion system for green suborbital flights,
- SpaceTOurists (Politecnico di Torino - Turin, Italy) received **Dassault Aviation Prize** for its study related to sizing and aerodynamics analysis of a wing-body suborbital vehicle,
- Space Doctors (Medical University & Nikola Vaptsarov Naval Academy - Varna, Bulgaria) was awarded by the **Communication Prize**, sponsored by ACE, for the emphasizing of work related to a small medical robot.

In addition, during the Suborbital Day, MISS (Université Libre de Bruxelles - Brussels, Belgium) received the

Suborbital Day's Special Prize

, sponsored by Air and Space Museum, for the best presentation related to its work on the design of a suborbital health monitoring platform.

17/08/2022

Results for the sixteenth exercise

Among the 27 registered teams for the sixteenth exercise of the Student Aerospace Challenge, 14 teams returned their report. Evaluation by the Steering Committee of the Challenge, composed of partners and experts leads to the following prize list:

- ICSpace (Imperial College London - London, United Kingdom) received ESA Grand Prix for its study related to a suborbital vehicle in biplane Busemann configuration,
- FAST (Politecnico di Milano - Milan, Italy) was awarded by the ArianeGroup Prize for its work to design an engine suited to a high-speed long-range suborbital transport vehicle,
- Space Doctors (Nikola Vaptsarov Naval Academy - Varna, Bulgaria) received Dassault

Aviation Prize for its study of a small medical robot,

- CommunicaTOrs from Outer Space (Politecnico di Torino - Turin, Italy) was awarded by the Communication Prize, sponsored by ACE, for the emphasizing of work related to promotion and communication of suborbital flights.

In addition, during the Suborbital Day, SALTO (Politecnico di Torino - Turin, Italy) received the Suborbital Day's Special Prize, sponsored by Air and Space Museum, for the best presentation related to its work on aircraft structure for radiation protection.

24/06/2021

Results for the fifteenth exercise

Among the 20 registered teams for the fifteenth exercise of the Student Aerospace Challenge, 14 teams returned their report. Evaluation by the Steering Committee of the Challenge, composed of partners and experts leads to the following prize list:

- TO-orbit (Politecnico di Torino - Turin, Italy) received ESA Grand Prix for its study related to preliminary design of the Attitude Control System,
- STEINER (Universidad Rey Juan Carlos - Madrid, Spain) was awarded by the ArianeGroup Prize for its work on Mission profile and concept for a high-speed long-range suborbital transport vehicle,
- SALTO (Politecnico di Torino - Turin, Italy) received Dassault Aviation Prize for its analysis of a lightweight suborbital spaceplane,
- LifTOff Team (Politecnico di Torino - Turin, Italy) was awarded by the Communication Prize, sponsored by ACE, for the emphasizing of feasible solutions to extend the possibility to fly to as many passengers as possible.

In addition, during the Suborbital Day, Innspace team (Rzeszow University of Technology - Rzeszow, Poland) received the Suborbital Day's Special Prize, sponsored by Air and Space

Museum, for the best presentation related to its work on optimization of suborbital aircraft model structure for radiation protection.

26/11/2020

Results for the fourteenth exercise

Among the 36 registered teams for the fourteenth exercise of the Student Aerospace Challenge, 13 teams returned their report. Evaluation by the Steering Committee of the Challenge, composed of partners and experts leads to the following prize list:

- CAVARESS (University of Würzburg - Würzburg, Germany) received ESA Grand Prix for its study related to cardiovascular reaction during a suborbital flight,
- Innspace (Wroclaw University of Science and Technology - Wroclaw, Poland) was awarded by the ArianeGroup Prize for its work on analytic definition of the business model of commercial suborbital flights,
- M2 DAST IDEST (Paris Saclay University - Sceaux, France) received Dassault Aviation Prize for its proposal of a regulation for Europe governing the liability aspects of suborbital flights activities,
- Evering Team (Evering Institute, Bordeaux University - Mérignac, France) was awarded by the Communication Prize, sponsored by ACE, for the emphasizing of suborbital airworthiness management rules.

In addition, during the Suborbital Day, Herastrae team (King's College London – London, United Kingdom) received the Suborbital Day's Special Prize for the best presentation related to medical considerations of Push-Pull acceleration in commercial suborbital spaceflight.