Study @ISAE-SUPAERO (as a Partner University Student) Sept. 2023





Study @ISAE-SUPAERO as a Partner University Student **Program** Excellence : a world class actor in education and research Testimony Anthea Comellini Academics Research innovation & Entrepreneurship Student Life Industrial Environment Apply & Study @ISAE-SUPAERO • Q&A **Speakers**

A. Comellini Alumni / ESA Reserve Astronaut

Prof E. Zenou

Head of International



D. Morice Student mobility

Study @ISAE-SUPARO





Academics

Your success is our priority

Capital of aerospace

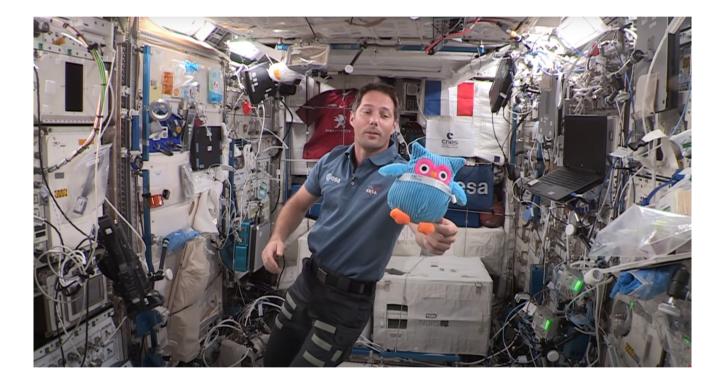


Research, Innovation

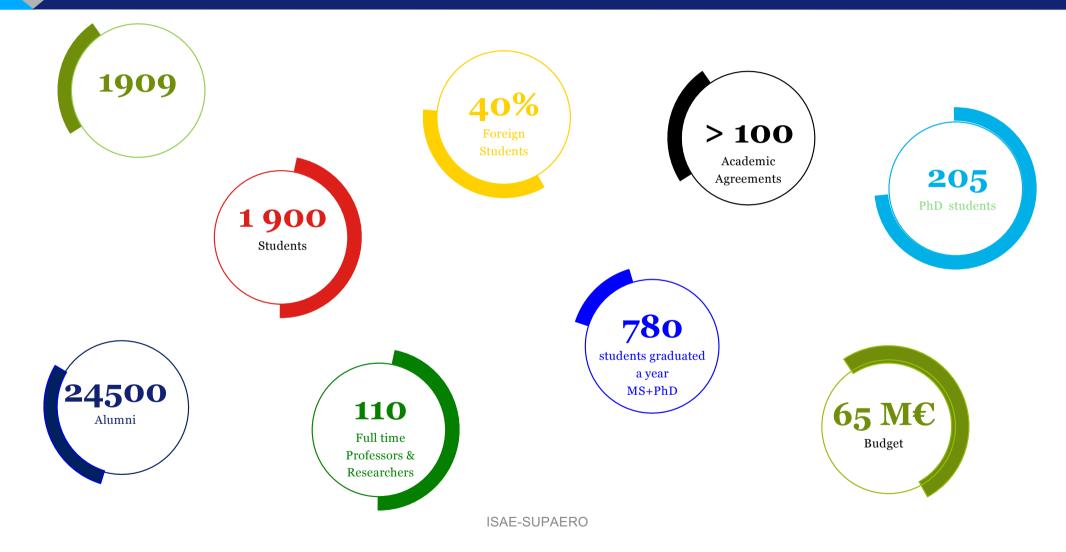
& Entrepreneurship

Scientific excellence, academic visibility & leading-edge technology

EXCELLENCE



Key Figures at a Glance



A few of our Alumni



ELODIE VIAU (M2008) Director of Telecommunications and Integrated Applications at the European Space Agency



JUAN CANTILLO (S2004) Senior Exploration Advisor at TotalEnergies, Manager of LNG exports to Japa



GUILLAUME FAURY (S1992) CEO AIRBUS



AUDE VIGNELLES (E1991) Chief Technology Officer at the newly created Australian Space Agency



OUSSAMA KHATIB (D1980) Full Professor at Stanford University, Director of the Robotics Laboratory



Angélica CARDENAS SIERRA R&T Coordinator for Aerostructures Procurement at Airbus



GIUSEPPE CATALDO NASA Planetary Protection Lead for the last mission of NASA-ESA's Mars Sample Return



PRIYANKA DAS RAJKAKATI (S2017-D2021) Aerospace engineer & Artist, awarded Forbes India 30 under 30



OLIVIA DRAYSON (M2019) PhD student in Environmental Toxicology at the University of California Irvine

Sky is Not the Limit

1992 ESA selection



Jean-François Clervoy, France, 675 hours in space, SUPAERO 1983

2009 ESA selection



Thomas Pesquet, France, SUPAERO 2001



Samantha Cristoforetti, Italy, Erasmus SUPAERO 2007



Luca Parmitano, Italy, PMP in experimental flight test engineering, SUPAERO 2009

2022 ESA selection



Sophie Adenot ,France, SUPAERO 2004

2022 ESA reserve astronaut selection

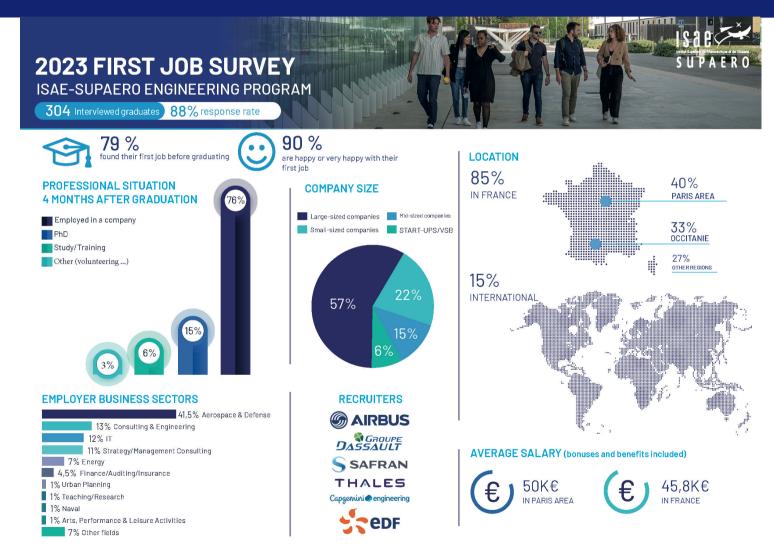


Arnaud Prost ,France, SUPAERO 2017



Anthea Comellini, Italy, SUPAERO 2017 PhD 2021

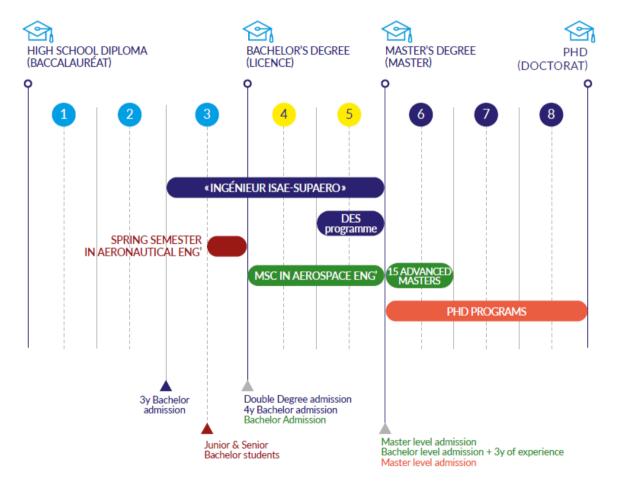
Our Sudent's employability



ACADEMICS



ISAE-SUPAERO Programs & Bologna Process



« Ingénieur ISAE-SUPAERO »

YEAR 1		YEAR 2		YEAR 3	
SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4	SEMESTER 5	SEMESTER
Scientific & Engineering Courses	Elective Courses 70 courses offered	Scientific & Engineering Courses	& Engineering Courses 70 courses offered Mathematics Physics Mechanical Eng. Electronical Eng. light mechanics and space mechanics	Field	Thesis / Internship
Mathematics Physics Mechanical Eng. Electronical Eng. Flight mechanics and	Experimental Works	Physics Mechanical Eng. Electronical Eng.		Engineering Project	
space mechanics Applied mathematics Information technology	Innovation Project	space mechanics Applied mathematics Information		Major	
technology	111111111111				

« Ingénieur ISAE-SUPAERO »

Motto: « Excellence with Passion »

Fundamental courses	Mechanical engineering	Electrical Engineering Course	Systems & Projects	Humanities	Economics and management
Applied maths	Aerodynamics	Control Theory	System Engineering	Arts & Cultural	Economics
Physics	Propulsion	Telecommunications	Functional Design	studies Languages &	Finance
Space science	Energetics	Signal processing	Space Systems	Communication	Management
	Structures	Image processing	Embedded Systems	Sports	
	Materials		Research projects		

Download brochure

« Ingénieur ISAE-SUPAERO » Fields & Majors

Field (Domaine) 140 hrs

Major (Filière) 240 hrs

Interdisciplinary Engineering Project (80hr) 4-to-6 Student Project Project Mgmt
ISAE-SUPAERO

+

+

14

RESEARCH, INNOVATION & ENTREPRENEURSHIP



Research @ISAE-SUPAERO



DAEP: Aerodynamics, Propulsion & Energetics

DMSM: Structures & Materials

DISC: Applied Math, Computer Science, Embedded Systems, Networks, System Engineering, Data Science...

DEOS: Electronics, Optronics, Signal Processing, CMOS Sensors...

DCAS: Aerospace Systems, Control...

LACS: Languages & Humanities

Academic & Research Facilities



AeroAcoustic Wind Tunnel

Dimension (test section) Speed Cut-off frequency 180 cm x 180 cm from 20 to 80 m/s 200 Hz

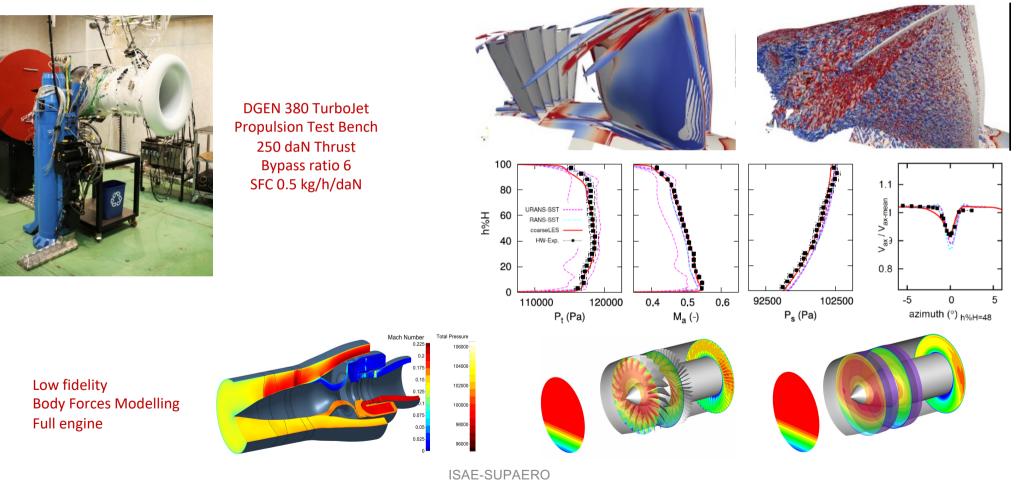




Low-Reynolds Wind Tunnel Perfect 2 m/s 120 cm x 80 cm test section

Academic & Research Facilities

LES Computation/Validation – IC3 in-house code

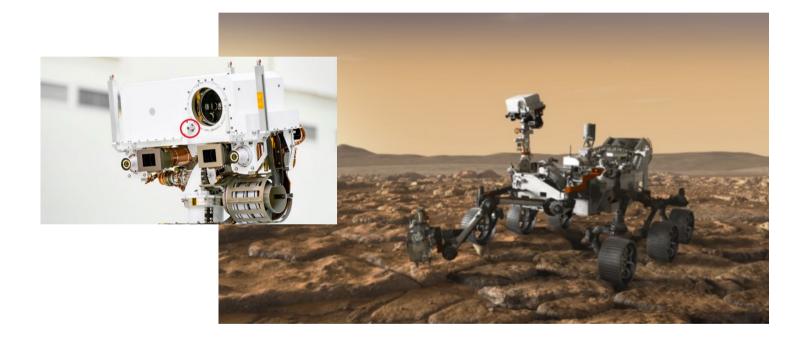


Focus on

PERSEVERANCE & SUPERCAM

A **world first**: hearing the sounds of planet mars through a microphone made at ISAE-SUPAERO

APRIL 2022: Publication in "Nature" science journal of the analyses of Martian sounds



Focus on

DART PROJECT (Double Asteroid Redirection Test)

A team of isae-supaero researchers takes part in the **first international planetary defence mission**!

The aim of the mission is to launch a missile probe that will crash into the near-Earth asteroid Dimorphos to modify its orbit and thus test our ability to avoid collisions with the Earth.



Academic & Research Facilities



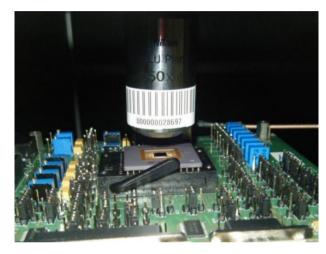
Fleet of 10 aircrafts Instrumented TB20 Robin DR 400 Aquila...

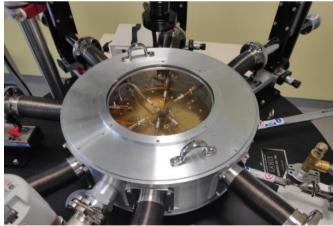


Two Flight Simulators For Human Machine Interface design & Flight Dynamics



Cutting-edge research equipment







Build a safe and sustainable society

Ecological and societal transition

ISAE-SUPAERO In the top 3 of the most committed institutions in the ecological and societal transition, and fisrt for "training"



ISAE-SUPAERO publishes its aviation and climate reference



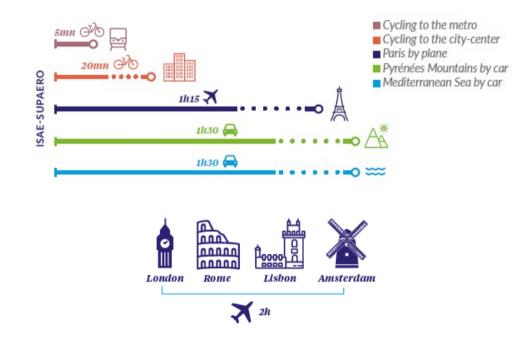
STUDENT LIFE



Toulouse has it all !







Campus Life



ISAE-SUPAERO Student Clubs...



International connections



Toulouse: European Capital for Aerospace Activities

More than 100 000 jobs in the aeronautics and space sector

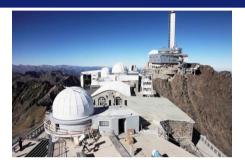
More than 100 000 students at l'Université Fédérale de Toulouse



Academic Environments: Other Laboratories

















Industrial Strategic Partnerships



Academic Network

Founding Member of « University of Toulouse »



115,000 students, 4,100 PhD students, 6,000 researchers



Université

de Toulouse

30 European aerospace universities in 12 countries, 3000 graduates per year

5 universities, 5 countries, 144 000 students and staff



59 members in 25 countries

Apply and Study at ISAE-SUPAERO



- Double degree
- Exchange semester(s)

Many ways to study @ISAE-SUPAERO

- Research project
- Free mover

You have to be selected by your University

=> Contact your University first!

- Double degree
- Exchange semester(s)
- Research project
- Free mover

Two selection committees:

1. October 2023:

- Double degree (early selection for EIFFEL Scholarship)
- Exchange semester (spring semester Year 2)

2. April 2024:

Double degree Exchange semester(s) (Year 2 and Year 3)

If nominated for the double degree...

- Double degree
- Exchange semester(s)
- Research project
- Free mover

- An application link will be sent to you
- Application deadline: October 15th, 2023
- Required documents : Transcripts of Records from all previous academic years / Motivation Letter in French / Resume/CV in French / ID/Passport

French level certificate (B1) is required, you can provide it later.

Double degree students will have access to an intensive French course in August 2024

Contact email: incoming.df@isae-supaero.fr

• Double degree

- Exchange semester(s)
- Research project
- Free mover

1 or 2 semester(s) during the **2nd year** of our Engineering program (semesters 3 and/or 4)

1 semester during the 3rd year (semester 5)

For 1 year-long mobility during the 3rd year (semesters 5 and 6)

- Thesis only in an ISAE-SUPAERO lab
- Thesis / internship in an industrial partner: feepaying DES Diploma program

- Double degree
- Exchange semester(s)

Potentially granted for a research project in one of our labs

You have to be chosen by one professor

• Research project

[<u>Link</u>]

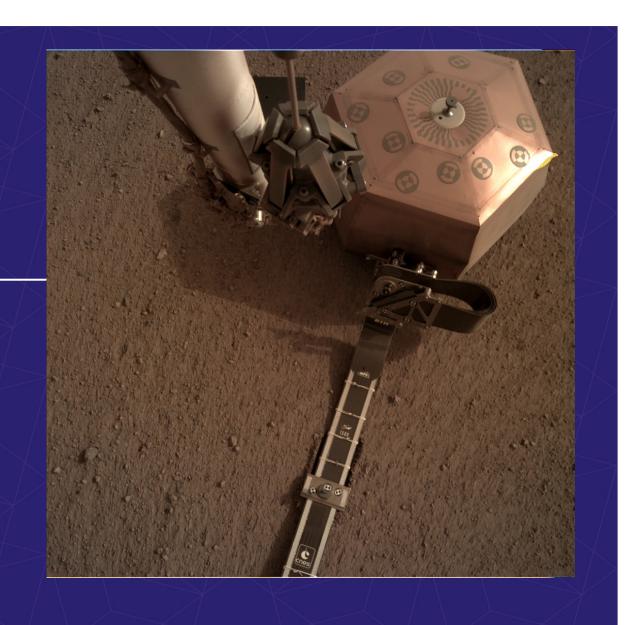
• Free mover





Thank you for your attention

Questions?



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