THE SCHOOL
ABOUT IPSA (1961 – 2018)

→ Est. in 1961 by French aircraft experts
→ Belongs to IONIS education group: 24 HEI in France
80 campus, 14 cities in France
→ Bring together over 28,500 students within the
areas of business, marketing/communications,
management, finance, IT, digital applications, aeronautics, energy,
transportation, biotechnology and design..
→ IPSA: Graduate school of engineering dedicated to
space & aircraft (5 years)
→ In permanent evolution, a new general director/CEO since March 2017
→ ISO 9001 accredited last December 2018
IPSA AT A GLANCE

- About 1700 students on two campuses (Paris and Toulouse)
- A five year syllabus leading to the « diplôme d’ingénieur »/Master in « Aeronautical engineering »
- 100% experience abroad (6 months): compulsory semester abroad
- Expending its inbound mobility ↔ onsite cross-cultural experience
- A run family school
- First IPSA Summer school launched in 2018!
- An International Bachelor on Artificial Intelligence launched in September 2020
Francis POLLET
General Director

Stéphane ROBERDET
Training/ Academic Director

Jean-Marc CHALIN
Director Campus Toulouse
THE TRAININGS
Pedagogical engineering:

Student is at the center of the training process, having to make choices at multiple levels:
- engineering courses, majors and options, specializations
- compulsory international semester and various compulsory internships in companies, laboratories
- electives and team projects throughout the curriculum
- rich student associations/clubs life

Problem-oriented and project-oriented teaching
# IPSA Curriculum: the teaching

<table>
<thead>
<tr>
<th>Semester 10</th>
<th>Final Internship within Industry 5 to 6 Months in France or abroad supervised by IPSA</th>
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<tbody>
<tr>
<td>Semester 9</td>
<td>2 technical majors/ 6 options:</td>
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<tr>
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<td>Autonomous Airborne systems (SAA)</td>
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<td>Semester 8</td>
<td>Technical internship 1 to 3 months</td>
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<td>Mechatronics</td>
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<td>Semester 7</td>
<td>Electronic, Computer sciences, Embedded System, Automation</td>
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<td>Semester abroad</td>
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<td>Semester 6</td>
<td>Avionics Systems</td>
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<td>Semester 5</td>
<td>Fundamental syllabus</td>
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Development strategy

- Maintain high quality partnerships on all continents
- Favour universities and/or programs in aeronautics/space
- Target countries recognized for their expertise or their rise in the sector
- Offer a unique experience to our IPSA students culturally
- Our international office sends each year about 370 IPSA students abroad to spend one academic semester and/or to do a double degree diploma
- Increase of our international partnerships in 3 years: from 26 to 65 university partners
- Today, many international students spending one semester or one academic year at IPSA at the Master level (most of the courses taught in English)
International orientation days Paris

- An International Association in contact with the exchange students throughout the semester to help them at IPSA and in Paris and to organise activities.
  https://www.facebook.com/InternationalStudentAssociationIPSA/

- A French buddy is assigned to each exchange student
About 65 university partners
COMPANY and INTERNSHIP DEPARTMENT
Industrial ROX: adapting the academic programs to the market trends

- A specific job market survey (survey job observatory in 2017)
- Key industrial partners seating at the Academic orientation board
- Partnering with the Aerospace Valley, ASTech, Royal Aeronautical Society, ISSAT, 3AF, USAIRE, ...
- 40% teachers from key partners (ONERA, etc)
Graduates employment: Sectors of activity

- AEROSPACE, AIR TRAFFICK CONTROL: 51%
- TELECOM: 17%
- AUTO., RAILWAY., NAVAL: 10%
- ENERGY: 9%
- AEROSPACE, AIR TRAFFICK CONTROL: 7%
- AEROSPACE, AIR TRAFFICK CONTROL: 6%
- AEROSPACE, AIR TRAFFICK CONTROL: 17%
The jobs after IPSA graduation (2017 figures)

- **R&D, CONCEPTION, DESIGN OFFICE**: 30%
- **INDUSTRIALIZATION, PRODUCTION, METHOD**: 18%
- **OPERATION, MANAGEMENT, ORGANISATION**: 14%
- **MARKETING**: 14%
- **QUALITY, QUALIFICATION, SAFETY, SECURITY, ENVIRONNEMENT**: 14%
- **OTHERS**: 11%
40 IPSA STUDENT CLUBS VERY ACTIVE

"More than 40 student associations taken into account in the training project/curriculum (ECTS credits and bonus in some subjects)
40 IPSA STUDENT CLUBS VERY ACTIVE

« One example of a successful student club union: IPSA ONE, idea is that of a "CubeSat", a miniature satellite format, 10 cm side for less than 1.5 kg, their ambitious five-year project is to build a nano-satellite to be sent into space before 2020. »
40 IPSA STUDENT CLUBS VERY ACTIVE

IPSA Flight is an association whose goal is to design a 1:1 scale Boeing 777 simulator and eventually use this simulator for educational purposes. The IPSA flight simulator always present at the International Aeronautics and Space Show at the Bourget/Paris Air Show! one of the most important international events for the presentation of aeronautical and space equipments.
40 IPSA STUDENT CLUBS VERY ACTIVE

IPSA CONSULT WINS THE PRIZE FOR THE BEST ENGINEERING STUDY AT THE 2018 NATIONAL SUMMER CONFERENCE FOR JUNIOR COMPANIES

IPSA Consult members presented the world's first carbon fiber wind tunnel made by them this successful prize.

JUMPER DRONE: This project and drone was born during a challenge from Inholland University to propose a viable start-up project, both technologically and economically. Innovative Drone, still new on the market, capable of filming parachutists during their jumps. Made by two 4th year students, a successful project.
RESEARCH vs. EDUCATION

- Disseminate the spirit of research in the pedagogy and ensure the anchorage of Research-Training by covering all fields of education within IPSA

- Program of Initiation to Research and Innovation (PIRI): a wide range of 20h-crash classes + master research projects and internships

- Student Lab (supervision of selected missions within the technical student clubs; e.g. IPSA One, IPSA Vega, IPSA Space Systems)

- Contracts of industrial studies involving student interns: we also offer companies to train groups of students to specific skills through the PIRI in order to prepare them for future internships
Research organization: our laboratories

- **Micro Aeronautics Team**
  - Autonomous Air Systems Laboratory - LS2A
  - IPSA Intelligent Systems Laboratory - LS2I
  - IPSA Complex Systems Laboratory – LSCI

- **Computational Science for Mechanics and Energy Team**
  - Modeling and Aerodynamical Testing Laboratory - LEMA
  - Thermal and Thermodynamics Laboratory of IPSA - L2TI
  - Materials and Structural Mechanics Laboratory - L2MS
  - Simulation and Scientific Computing Laboratory – LSNC
EMBARK YOUR INSTITUTION TO IPSA AND LIVE THE EXCHANGE STUDENT EXPERIENCE!