

# ESTACA SCHOOL OF TRANSPORT ENGINEERING

-  AUTOMOTIVE
-  AERONAUTICS
-  SPACE
-  RAILWAY
-  NAVAL



EXPANDING HORIZONS OF MOBILITY

# ESTACA, INVENTING TRANSPORT OF TOMORROW

**ESTACA School of Transport Engineering, located in France, trains engineers in the fields of automotive, aeronautical, space, railway, and naval engineering. Our engineers and our research center ESTACA'LAB develop solutions for more sustainable transport such as control of energy consumption, air quality, use of ecological and intelligent materials, autonomous and connected systems, new energies, and digital technology.**

Founded in 1925, ESTACA is a member of the ISAE Group, the number one cluster in aerospace training and research in France. Our 5-year Engineering Master's Degree is accredited by the Commission des Titres d'Ingénieurs (CTI) since 1986.

ESTACA's expertise is well recognized by industry and by various stakeholders, which means it is ranked among the best engineering schools for the quality of its graduates. Our training offer constantly evolves to meet the requirements of different industries. Together with our industrial partners, we endeavor to transform our passionate students into passionate professionals!





## KEY FIGURES

**3**  
campuses: Paris-Saclay,  
Laval, Bordeaux

**2,400**  
students

**450**  
graduates per year

**2**  
research teams

**1**  
year of compulsory  
industrial internships

**44,495€**  
average starting salary  
for graduates

**10,000**  
alumni

**35**  
student clubs & societies

**56**  
partner universities abroad

**83%**  
of students hired prior  
to graduation

**15%**  
of students are hired  
abroad

## 5 KEY REASONS TO CHOOSE ESTACA

- 1.**  
ESTACA is the only French Engineering School providing training in 5 transport sectors: automotive, aeronautics, railway, space and naval.
- 2.**  
ESTACA works closely with companies and industries: 8 out of 10 students are hired even before they graduate!
- 3.**  
Students and staff members enjoy their time at ESTACA: personalized student support, teamwork, and solidarity among students = an enhanced student experience!
- 4.**  
“Learning by doing”, a project-based approach, is at the heart of our pedagogy.
- 5.**  
There is high demand on the job market for transport engineers: we train the new generation of engineers ready to innovate for more sustainable transportation.

ESTACA has established industrial and academic partnerships to reinforce cooperation in the fields of education, research, and innovation, and is an active member of various networks.



# JOIN US FOR MULTIPLE STUDY POSSIBILITIES

ESTACA welcomes international students in the engineering degree program, in the summer programs, for an exchange semester or for a post-master's degree in a range of transport fields.

By joining any of our programs, international students will not only improve their technical skills and knowledge but also discover France, broaden their professional network, and improve their intercultural skills!

## FRENCH GRADUATE ENGINEERING DEGREE CURRICULUM

Year 1	Year 2	Year 3	Year 4	Year 5
CORE COURSES IN ENGINEERING				STUDIES IN THE SELECTED MAJOR
Initiation to Transport Studies : Automotive, Aeronautics, Space, Railway and Naval	Automotive	Automotive	Automotive	Automotive
	Aeronautics & Space	Aeronautics	Aeronautics	Aeronautics
	Railway	Space	Space	Space
	Naval	Railway	Railway	Railway
	Naval	Naval	Naval (sept 24)	Naval (sept 25)
Work placement (4 weeks)	Work placement (4 weeks)	Work placement (4 weeks - optional)	Work placement (4 months)	Work placement (6 months)

Gap year (12 months - optional)



## INTERNSHIPS – TECHNICAL AND COOPERATIVE SKILLS IN PRACTICE

Carrying out an industrial internship in France or abroad is crucial for all Engineering Students. Each student spends at least 12 months in companies during their time at ESTACA. There are 4 compulsory internships and an optional gap year at the end of the 4th year.

Different departments at ESTACA work together throughout the academic year to organize promotional events, to share and communicate on internship offers, alumni events & workshops to help students find their placements and the companies to find their ESTACA interns!



**YEAR 1**  
Compulsory work placement  
(Discovery)

**JULY-AUGUST**



**YEAR 2**  
Compulsory work placement  
(Discovery or Engineering)

**JULY-AUGUST**



**YEAR 3**  
Optional work placement  
(Discovery or Engineering)

**JUNE-AUGUST**



**YEAR 4**  
Compulsory work placement  
(Engineering)

**MAY-SEPTEMBER**



**OPTIONAL GAP YEAR**  
12 months between Year 4  
and Year 5

**SEPTEMBER-SEPTEMBER**



**YEAR 5**  
Compulsory work placement  
(Engineering)

**FEBRUARY-OCTOBER**





# WELCOMING INTERNATIONAL STUDENTS

## EXCHANGE SEMESTER PROGRAMS

### ENGINEERING PROGRAM – FROM THE 2ND YEAR TO THE 5TH YEAR IN THE SELECTED TRANSPORT SECTOR

- **Campus:** Paris-Saclay, Laval or Bordeaux
- **When:** Fall or Spring semester or Academic Year
- **Taught in:** French (some courses in English) – Certificate of B2 level in French required
- **Credits:** 30 ECTS / semester
- **Sectors:** Automotive, Aeronautics, Space, Railway and Naval

### AUTOMOTIVE AND AERONAUTICS DESIGN PROGRAM (AAD)

- **Campus:** Paris-Saclay
- **When:** Spring semester
- **Taught in:** English
- **Credits:** 30 ECTS / semester
- **Sectors:** Aeronautics and Automotive

## SUMMER PROGRAMS

### ESTACA SUMMER PROGRAM - COMPUTATIONAL FLUID DYNAMICS APPLIED TO AERONAUTICAL ENGINEERING

- **Campus:** Paris-Saclay
- **When:** June-July (4 weeks)
- **Taught in:** English
- **Credits:** 10 ECTS
- **Sector:** Aeronautics

### ISAE AEROSPACE SUMMER PROGRAM

A tailored summer program for undergraduate junior and senior students, with a strong interest in space and aviation, organized by the ISAE group.

- **Campus:** Various locations – a week on each school's campus
- **When:** June-July (4 weeks)
- **Taught in:** English
- **Credits:** 12 ECTS
- **Sectors:** Space and Aeronautics



## POST-MASTERS' DEGREES

### AOM - AERONAUTICAL OPERATIONS AND MAINTENANCE

An innovative program closely aligned with industrial requirements and needs.

- Campus: Paris-Saclay
- Program: 400 hours of academic coursework - 6-month internship - Doctoral dissertation
- Taught in: English
- Credits: 75 ECTS
- Sector: Aeronautics
- Industrial partners: Air France, Airbus Group, Aéroports de Paris, Zodiac Aerospace

### MEP - MOTORSPORT ENGINEERING & PERFORMANCE

A unique program in France to meet the needs of the competitive motorsports sector.

- Campus: Laval
- Program: 480 hours of academic coursework - 6-month internship - Professional dissertation
- Language: English
- Credits: 75 ECTS
- Sector: Automotive
- Industrial partners: FIA, Renault Sport Racing, Automobile Club de l'Ouest, Peugeot Motorsport

## WISH TO APPLY? NEED FURTHER INFORMATION?

### WEBSITE

[www.estaca.fr/en/admissions/](http://www.estaca.fr/en/admissions/)

### CONTACT

Exchange, AAD &  
Summer Programs:

[estaca\\_incoming@estaca.fr](mailto:estaca_incoming@estaca.fr)

Post-master's degree:  
[post-master@estaca.fr](mailto:post-master@estaca.fr)

# STUDENT LIFE AT ESTACA: COMMITMENT AND TEAM SPIRIT



## STUDENT CLUBS & SOCIETIES

Student clubs & societies enhance the student experience at ESTACA and enable them to interact around common interests and aspirations.

**Engaging in associative actions or projects gives students the opportunity for personal and academic growth.**

All students can join any of the 35 clubs & societies according to their interests: technology, sports, humanitarian activities, or culture.

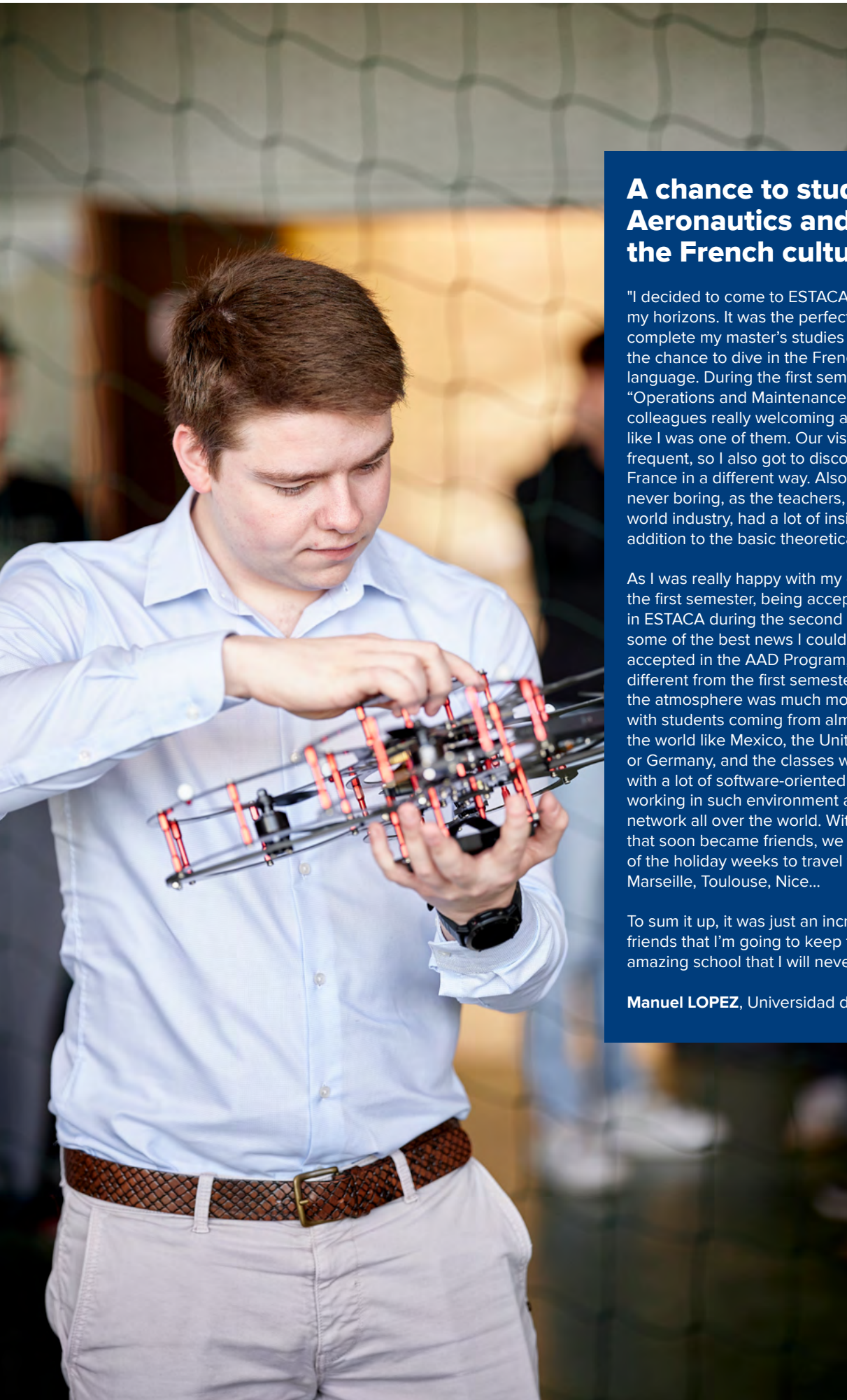
## INTERNATIONAL STUDENTS – “BIENVENUE EN FRANCE”

ESTACA obtained the "Bienvenue en France" Label in 2021. This Label was established to improve the internationalization and attractiveness of higher education in France.

**ESTACA is committed to providing quality services to international students** and guiding them throughout their studies with us.







## A chance to study Aeronautics and dive in the French culture

"I decided to come to ESTACA to broaden my horizons. It was the perfect opportunity to complete my master's studies while having the chance to dive in the French culture and language. During the first semester, I studied "Operations and Maintenance". I found my colleagues really welcoming and I quickly felt like I was one of them. Our visits to Paris were frequent, so I also got to discover the capital of France in a different way. Also, the classes were never boring, as the teachers, coming from real world industry, had a lot of insights to share in addition to the basic theoretical knowledge.

As I was really happy with my experience during the first semester, being accepted to continue in ESTACA during the second semester was some of the best news I could receive. I was accepted in the AAD Program, that I found different from the first semester. In this program, the atmosphere was much more international, with students coming from almost everywhere in the world like Mexico, the United States, Brazil or Germany, and the classes were practical, with a lot of software-oriented sessions. I loved working in such environment and extending my network all over the world. With my colleagues, that soon became friends, we took advantage of the holiday weeks to travel through France: Marseille, Toulouse, Nice...

To sum it up, it was just an incredible year, with friends that I'm going to keep forever, in an amazing school that I will never forget."

**Manuel LOPEZ**, Universidad de Sevilla, Spain

# ACADEMIC AND INDUSTRIAL COOPERATION

**ESTACA has established a range of partnerships and collaborations with many industrial and academic partners. With partnerships signed with key players in the transport sector (Dassault Aviation, Safran, Thales, ArianeGroup, Airbus, Renault, Valeo, Groupe SNCF, RATP Group, Alstom, Naval Group, Marine Nationale, etc.), our school continually seeks to align our training offer with the needs of the transport industry.**

Our multilateral and bilateral cooperative agreements at university-level encourage cooperation in the fields of education, research, and innovation, allowing our students and faculty to enjoy multiple opportunities for learning, mobility and intercultural communication.



# ESTACA'LAB: RESEARCH FOR TOMORROW'S TRANSPORT INNOVATIONS

Divided into two departments, Mechanical and Energy & Embedded Systems for Transport, ESTACA'LAB conducts research with our industrial partners for more sustainable, smarter, and better adapted transport solutions. The research topics include, but are not limited to: electric vehicles, hybrid energy sources, autonomous vehicles, composite structures, and air quality.

For students interested in a career in R&D: it is possible to continue their studies with a PhD at ESTACA after a 5-year Engineering Degree. Also, many ESTACA doctoral students choose to do an international co-tutored thesis, which allows them to combine the expertise of two research advisors, in France and abroad.

## MECHANICAL RESEARCH DEPARTMENT



### AIR QUALITY

Dispersion and Infiltration of particles  
Improvement of air quality in transports  
Characterization of pollutants



### LIGHTENING OF STRUCTURES

Functional Structures Composites  
Link between damage and durability  
Bicomposites

## ENERGY AND EMBEDDED SYSTEMS FOR TRANSPORT RESEARCH DEPARTMENT



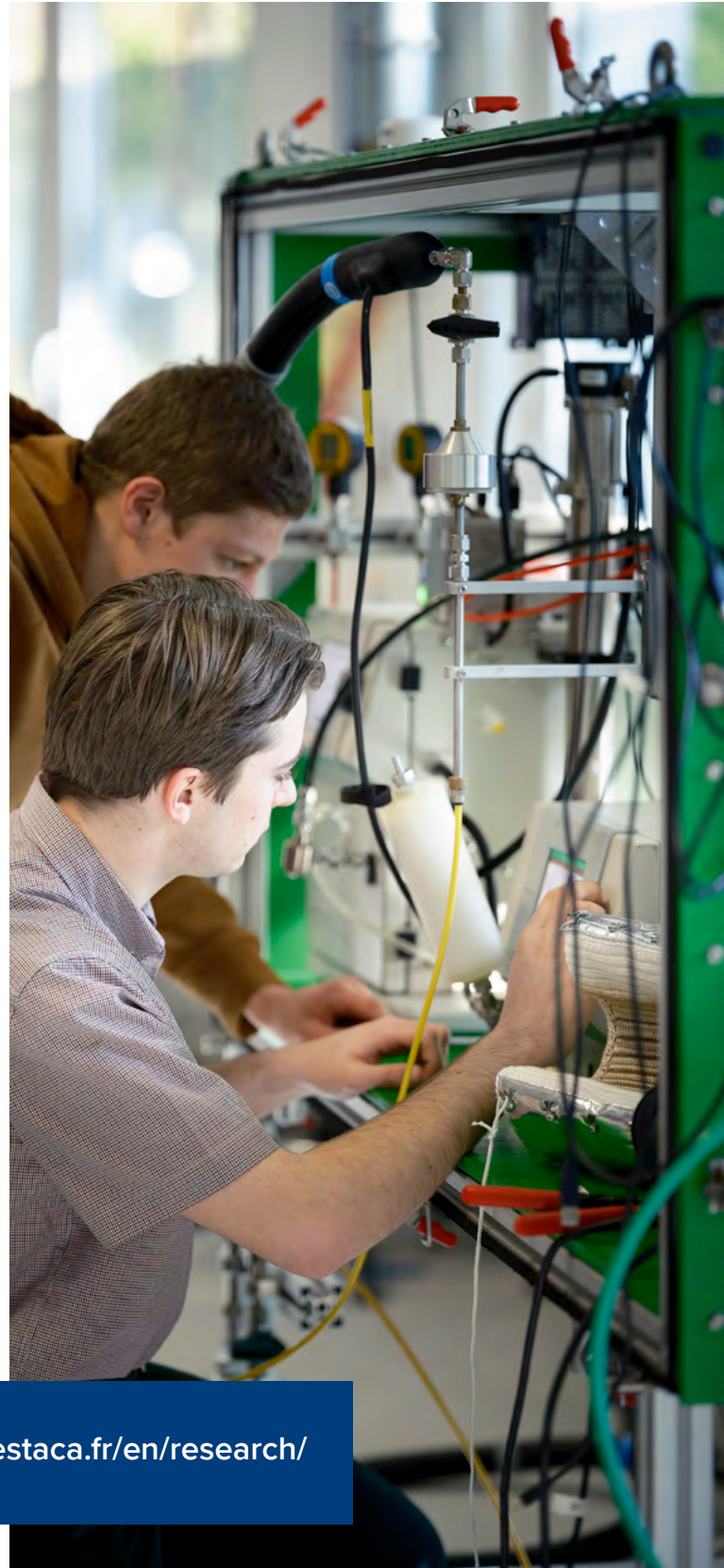
### ENERGY AND CONTROL

Storage systems and energy management  
Electrification and mechatronics optimization  
Faults Tolerant Control




### EMBEDDED SYSTEMS

Optimization of embedded SW architectures for real time applications  
Connected Mobility



<https://www.estaca.fr/en/research/>

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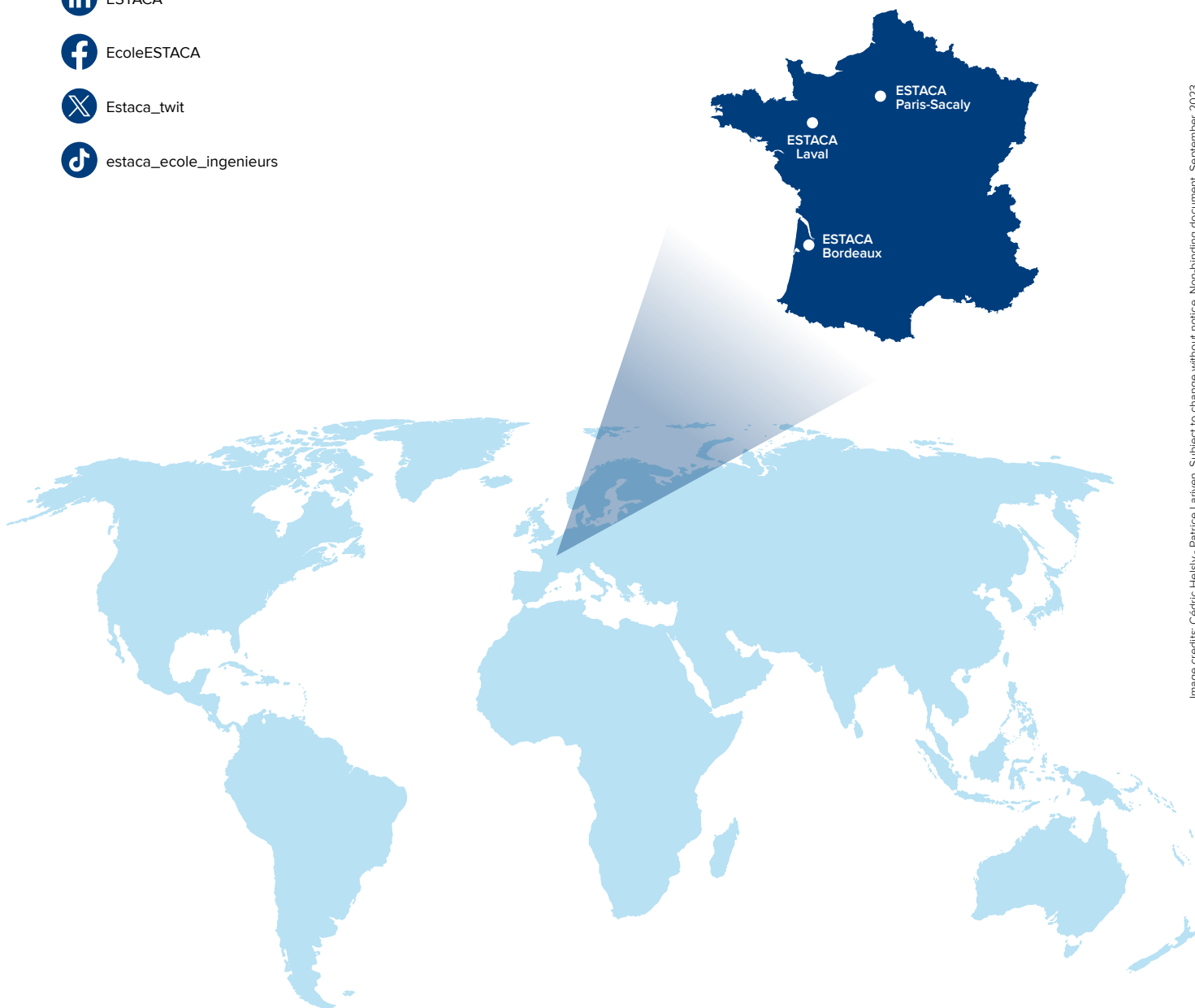


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