

# ParisTech

#Connect #Innovate #Share



**CHRISTIAN LERMINIAUX**  
President of ParisTech

## EDITORIAL

This academic year, the ParisTech schools are pleased to welcome new students not only via the CPGE route (*Classes préparatoires aux grandes écoles*), but also via parallel admissions routes open to students who hold a DUT, BTS, undergraduate degree, or a Master's. By offering these alternative entry routes, the schools hope to diversify the student body, where at present the majority of students (80%) join via the conventional *prépa* route. Now that these routes are in place, we need to make sure that prospective candidates are aware of them.

In June 2022, the ParisTech network became a non-profit organisation (*association loi 1901*). The seven ParisTech schools reaffirmed their desire to continue working together and running joint projects for their engineering students, both in France and abroad. As always, the schools' actions are underpinned by their shared values: excellence, internationalisation, social diversity, innovation, and solidarity. The change of status also brings changes to the governance structure, with two major universities (of which some of the ParisTech schools are members) taking on an advisory role: the Université Paris Sciences & Lettres, and the Université Paris-Saclay.

## FEATURE

# Alternative admissions routes at the ParisTech schools



**VIRGINIE LAIR**  
Director of Academic Programmes at Chimie ParisTech – PSL

**VANINA AMBLAS**  
A second-year engineering student who joined the Institut d'Optique Graduate School after doing a 3-year undergraduate degree at Université de Rennes 1

**Why did your school decide to offer alternative entry routes?**

**VL:** Many students join Chimie ParisTech – PSL after taking the CCMP national competitive exam (*Concours Commun Mines-Ponts*). The "parallel admissions" route (*admissions parallèles*, also known as *admissions sur titre*) allows suitably qualified candidates to apply to the ParisTech schools without following the conventional entry route

(2 years of CPGE preparatory classes, followed by a competitive entrance exam). This helps us attract a larger, more diverse pool of students.

**Have you achieved what you hoped to by setting up this new entry route?**

**VL:** For us, offering a parallel admissions route was primarily about further diversifying the student community, although we do already have students from all over France, and a significant number of women in each intake. The parallel admissions route has brought us more international students, in particular in the second year (around 20 students out of a total intake of 120).

Some years we also get more bursary and scholarship students

applying via this track (international students who have secured a state-funded scholarship or bursary, or French students who have a financial support bursary from the CROUS). This year for example, 50% of the first-year engineering students who joined via the parallel admissions route hold a bursary, compared to 20% of students who joined via the CPGE route.

**What steps have you taken to publicise the new entry routes?**

**VL:** Every year, representatives from the school's international relations departments visit our overseas partner universities as part of the ParisTech international admission programme. Within France, it hasn't been necessary to run dedicated promotional activities as we already receive a lot of applications. Information

about how to apply for parallel admission into the first/second year of the engineering cycle is published on the school's website. We also promote all the admissions routes offered by the school as part of our general recruitment activities, which include attending careers fairs, organising events, and sending students into high schools and colleges.

### What tips would you give to students interested in applying for parallel admission?

**VL:** The most important thing is to find out what the school offers. I would advise candidates to browse the school's website to find out about its mission, the courses and career prospects it offers, and how these differ from university programmes or engineering programmes at other schools. Refresher classes are sometimes available for students joining via a parallel admissions route.

### Can you tell us a little about your background? Why did you choose a ParisTech school for your engineering course?

**VA:** I did an undergraduate degree in Physics at the Université de Rennes 1. Alongside my degree, I started an engineering master's programme (CMI) in Physical Instrumentation via the Figure network. I completed the first two years of my studies in Rennes, and the third year as an Erasmus student at the University of Lund in Sweden. By my second year I knew I wanted to apply to the Institut d'Optique, because I was fascinated by the science of light, and it's a field with a broad range of applications. I'm now a second-year student at the Institut d'Optique, and I'm doing an apprenticeship at CEA Saclay. I want to work as an engineer because my goal is to pursue a scientific career in a stimulating field where project-based work is key, and where I can help tackle societal and environmental issues.

### How did you join the Institut d'Optique?

**VA:** I bought a Onisep magazine, which lists all the engineering schools in France. As I was flicking through, I spotted the name 'SupOptique', and had a lightbulb moment – I didn't realise there was such a thing as an optical engineer! Optics covers all the parts of physics that I love – quantum physics, wave physics, electromagnetism, and so on. I therefore sat the GEI UNIV competitive entrance exam, which gives access to a number of engineering schools, with the aim of getting into the Institut d'Optique. There are two parts. You have to submit an application (cover letter, letters of recommendation, academic transcript), and then sit a written exam and oral exams. Because I was in Sweden on my Erasmus year, I couldn't take the written exam and was given a special dispensation. I got through that stage and sat the oral exams – a general interview about why I was applying, then one in maths and one in physics. One thing I didn't know, which might be useful for other candidates applying for parallel

admission, is that SupOptique also run an internal competitive exam.

### What was it like to join the school, both in terms of your course and student life in general?

**VA:** Both aspects went very smoothly. I felt at home straight away. Because I'd got through the competitive entrance process, I knew I was good enough, but I was still worried that I might be behind the students who'd done the preparatory classes. Happily, that wasn't the case at all. There's a great sense of community at the school – I feel like I'm part of a big family.

[More information about parallel admissions at the ParisTech schools \(in French\).](#)

## ZOOM



**LAURA TIERLING**  
European Partnerships  
Manager at Mines Paris – PSL,  
and Coordinator  
of the ATHENS Network

**The IDEAL project (European Soft Skills for PhD: enhancing transversal skills through innovative doctoral courses) was set up in 2019 as part of the ATHENS programme and, 36 months later, is now drawing to an end. What were the aims of the project?**

Some of the members of the [ATHENS network](#), including four of the ParisTech schools (AgroParisTech, Arts et Métiers, Chimie

ParisTech – PSL, and Mines Paris – PSL), got together to think about how to improve, enrich, and promote doctoral programmes internationally, with a view to better equipping young European researchers to address increasingly complex issues, question the relevance of their research activities, and boost the societal and economic impact of their work. One of the major gaps we identified in doctoral programmes was a lack of training in soft skills. The [IDEAL project](#) was therefore set up to create a database listing all existing soft skills training at doctoral level, and to design new methods and content.

### Was the project a success? What did you achieve?

At the beginning of the project, we ran a survey to ask PhD candidates what they required. We got over 1000 responses! This data helped us tailor our training courses to student demand.

We created a [catalogue for PhD candidates](#), which lists all of the soft skills courses offered by institutions within the consortium. We also designed a [MOOC called "Creative and design thinking: process and tools for innovation"](#), which is open to anyone and can be completed online, and two in-person classes: "Creative and design thinking – Tools and techniques for success" and "Mediating international and scientific communication". Thirdly, we ran a session on the peer-based "Co-orientation" learning method developed by Isabelle Liotta, professor at Mines Paris – PSL, which aims to help PhD candidates identify their strengths and weaknesses and define their career goals and work out how to achieve them.

Last but not least, we organised an event to present our findings. We had planned a second of these, but had to cancel due to COVID.

Despite having to make some changes due to the COVID pandemic, such as running some classes online, the IDEAL project has definitely been a success. The feedback from PhD candidates has been very positive. They consider soft skills training an essential part of their studies, in particular because it helps them improve how they present research results to non-specialist audiences.

### Do you have plans to continue the project?

The "Creative and design thinking: process and tools for innovation" MOOC will remain online, for anyone who is interested. We're talking to our ATHENS partners about keeping the two courses we developed open to all members of the network. The plan is for the staff who designed the classes to run them at different institutions. For the IDEAL course catalogue, we're planning to talk to the various European universities involved to see if we can integrate the IDEAL courses in the [EELISA](#) catalogue.

## THE LATEST FROM PARISTECH

### COMMUNICATION

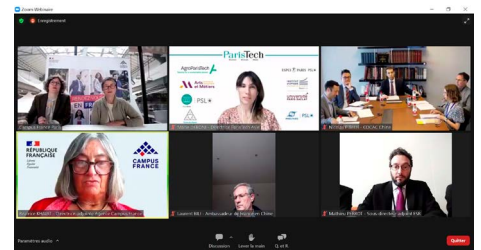


From 7–17 October 2022, the ParisTech schools celebrated science in all its forms during the 31<sup>st</sup> edition of the *Fête de la science*, a free annual festival organised by the French Ministry of Higher Education, Research and Innovation to encourage more people to explore the world of science. This year's theme was the topical issue of climate change – a key concern for today's society and that of the future. The schools opened up their doors to families, school pupils, university students, enthusiasts and amateur scientists, showcasing their research activities through presentations, fun events, guided tours, and exhibitions.

### TEACHING



The new term also opens a new year for the [RACINE ParisTech network](#), which provides support and training for academic staff at the ParisTech schools. 2021-2022 was a busy year for the network, marked in particular by the AIPU conference and the publication of an article on a [network-based approach to training academic staff](#). For 2022-2023 the network has put together a training catalogue containing a range of innovative workshops on diverse topics. These include mind mapping, Thiagi games, collective intelligence, inclusion, accessibility, and differentiation. All of the workshops provide a structured context in which academic staff from different engineering programmes across the ParisTech network can come together and share ideas and knowledge.



On 28 September, Marie de Boni, Director of [ParisTech in Asia](#), took part in the China workshop organised by Campus France Paris in conjunction with the French Embassy and the French Ministry for Europe and Foreign Affairs. She presented the two-way student mobility actions led by ParisTech in China – recruitment of Chinese students looking to study engineering in France, and support for French students interested in studying in China. Her presentation also covered the two long-standing programmes ParisTech runs with the China Scholarship Council. Every year, this organisation finances scholarships that allow Chinese students to obtain a [French engineering degree](#) from one of the ParisTech schools (two-year scholarship), or do a [PhD](#) at one of the 84 laboratories run by the network's schools (three-year scholarship). In total, 205 French higher education institutions took part in the online workshop.

### DIVERSITY



The [ParisTech/ENCPB "Ambition Sciences" programme](#) is running for a third consecutive year. Four ParisTech schools (AgroParisTech, Arts et Métiers, Chimie ParisTech – PSL and ESPCI Paris – PSL), the [ENCPB](#), and ten secondary schools are involved. Activities will start in October, after the student volunteers from the engineering schools have received their training. Throughout the year, ENCPB students looking to apply to top schools will benefit from a number of events, including guided tours of the ParisTech schools, the annual ParisTech *Cordées de la réussite* event, and informal meetings to boost motivation. It looks set to be another exciting year!

### INTERNATIONAL



In June, the Politehnica University of Bucharest hosted the General Meeting of the [ATHENS network](#) – the first to be held in-person in three years. The 15 European partners reflected on the March 2022 session and discussed upcoming activities: the November session, the General Meeting in December, and plans for 2023. The members were particularly excited to discuss a new type of Erasmus+ programme, known as Blended Intensive Programmes (BIP). The first BIP will be offered by the Czech Technical University in Prague during the November 2022 ATHENS week. More information is available on the [ParisTech website](#).

### INTERNATIONAL AGREEMENTS

#### International Framework Agreements

Renewal of the MoU with the Korea Advanced Institute of Science and Technology (KAIST; South Korea)

Signature of an MoU with the Gwangju Institute of Science and Technology (GIST, South Korea)

Renewal of the MoU with IIT Guwahati (India)

Renewal of the MoU with Peking University (China)

Extension of the Cooperation Agreement with Southeast University (China)

[Scholarship programme co-financed by the French Embassy in India and ParisTech](#) (Arts et Métiers, Chimie ParisTech – PSL, the École des Ponts ParisTech, the Institut d'Optique, and Mines Paris – PSL)

#### International Missions

Recruitment trip to Brazil: 17–24 October 2022

## NEWS FROM THE SCHOOLS



### AgroParisTech

#### Opening of the new site in Orléans

On Wednesday 14 September, Laurent Buisson, Director General of AgroParisTech, officially opened the new AgroParisTech site in Orléans. The opening ceremony was attended by Serge Grouard (Mayor of Orléans and President of Orléans Métropole), Florent Montillot (Vice-President of Orléans Métropole, responsible for research, technology transfer, higher education, the Orléans ESAD, and student life), Anne Gaborit (Vice-President of the Conseil départemental du Loiret), and Régine Engström (Prefect for Loiret and the Centre-Val de Loire region). The brand-new building on the Orléans – La Source campus has been made available to AgroParisTech by the city of Orléans and will be used by students on AgroParisTech's new cosmetology course.



### Chimie ParisTech – PSL

#### Hello to our new international students!

This academic year, 18 international students from six different countries, including Brazil, Tunisia and Argentina, have joined second year students at **Chimie ParisTech – PSL**. Current second-year students organised a pre-term induction event on 30 and 31 August to welcome the international students and introduce them to their student buddies. The event was designed

with the needs of international students in mind. Daria Moreau, Linguistic & Cultural Education Manager, and representatives from the Office of International Relations, gave the new students a tour of the school and its laboratories and explained how the school is organised.



### École des Ponts ParisTech

#### Science festival focused on climate change

Saturday 8 October saw researchers and students from across the school open the doors to the public for a programme of events as part of the national *Fête de la science* festival. The theme of this year's festival was climate change and other environmental issues, and the activities on offer included workshops, a photo exhibition, a book corner, demonstrations, a show, a round-table discussion, guided tours and more. For the École des Ponts ParisTech, taking part in the festival is a new way of supporting the local community and reaffirming its commitment to tackling climate change and other challenges in the field of environmental sciences.



### Institut d'Optique

#### Alain Aspect, Professor at the Institut d'Optique, has been awarded the 2022 Nobel Prize for Physics

The Nobel Prize for Physics is the latest in the impressive string of physics prizes awarded

to Professor Aspect: the CNRS Gold Medal in 2005, the Wolf Prize in Physics in 2010, and the Balzan Prize for Quantum Information Processing and Communication, the Niels Bohr Gold Medal, the Albert Einstein Medal, and the Frederic Ives Medal (Optical Society of America) in 2013. Professor Aspect carried out his experimental work as part of the atomic optics group at the Charles Fabry laboratory of the Institut d'Optique Graduate School, focusing on Bell's inequality tests with entangled photon pairs and, more recently, ultra-cold atoms, quantum gases and quantum simulators. [Read more about the research of Alain Aspect and his team here \(in French\).](#)

## RESPONSABILITÉ & ENVIRONNEMENT

*« Se défier du ton d'assurance qu'il est si facile de prendre et si dangereux d'écouter »*  
Quelques citations tirées de l'article "Responsabilité & Environnement" de l'Annale des Mines



### Mines Paris – PSL

#### The time(s) of nuclear disasters

Franck Guarnieri and Aurélien Portelli, researchers at the Risk and Crisis Research Centre (CRC) of Mines Paris – PSL, have published an article in the *Responsabilité & Environnement* series of the *Annales des Mines* review. The article examines how differing conceptions of time have given rise to different interpretations of the Chernobyl and Fukushima nuclear disasters. In the West, Chernobyl and Fukushima have produced imaginary constructions that reflect a linear conception of time. In Japan, interpretations of Fukushima partly reflect this relationship with time, without exhausting the temporal imaginary in which the catastrophe is understood, which allows for the idea of rebirth, thus referring to a cyclical conception of time. [Download the article here.](#)

## ParisTech, the major engineering schools network

The complementary nature of the areas of excellence of the various schools provides our students, researchers and partners (academic and corporate) with an exceptional consortium that offers unique transdisciplinary opportunities. ParisTech also has strong international teaching and research links via its many partnership agreements.

[www.paristech.fr](http://www.paristech.fr) • Follow us     