

# ParisTech

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**CHRISTIAN LERMINIAUX**  
President of ParisTech

## EDITORIAL

Despite the ongoing health crisis, the new academic year has got off to a good start across the ParisTech schools. The schools and their staff have worked tremendously hard to ensure that students have access to high-quality teaching in a safe environment. Blended learning has been introduced, with students alternating between face-to-face classes and online sessions as necessary in order to limit numbers on the campuses.

International students too have taken up their places – a sign that the ParisTech schools continue to enjoy a solid reputation on the world stage. The *grandes écoles* entrance examinations went ahead as planned, and we were pleased to see that candidates were as motivated as ever in spite of the unprecedented crisis we are all facing.

One of the core values of the ParisTech schools is diversity, and in the midst of these uncertain times the schools are keener than ever to provide an inclusive, diverse environment. Diversity is a transverse value which underpins all of our decisions and actions. Our network thrives because the schools offer complementary areas of expertise and welcome staff and students from a wide range of different backgrounds. Pursuing diversity pushes us to be agile and show that we can adapt.

## FEATURED

### Diversity at ParisTech: A value to be celebrated



**LAURENT CHAMPANEY**  
Director general of Arts et Métiers  
Institute of Technology and President  
of the Diversity Commission

**A year ago you were appointed President of the ParisTech Diversity Commission. What are you doing to address the issue of diversity?**

All of the ParisTech schools are committed to training highly competent, multi-skilled engineers. That's what brings them together. Students are taught in a research environment that is both French and international and will go on to hold top management positions once they graduate. But managing an organisation means managing people, and that in turn means dealing with diversity and all the opportunities and challenges that come with it.

The ParisTech schools prepare young people for their future careers. It is vital that students receive training in diversity management so that once they graduate, they are able to promote and manage diversity in their organisation.

Within the Diversity Commission, the underlying question that guides our actions is this: how should we approach and manage diversity in the ParisTech schools? We are aware that there is still a great deal to be done. But we're moving in the right direction.

**What are the main challenges related to diversity?**

Diversity comes in many shapes and forms: social diversity, cultural diversity (language and ethnic

origin), disability diversity and gender and sexuality diversity.

We've done a lot to make all these kinds of diversity a reality, in particular with regard to recruitment. To increase cultural diversity, we've stepped up our international recruitment efforts and are already seeing the results – on average, international students now account for 30% of the student body across the network.

By presenting our courses to secondary and high school pupils and aiming to cultivate their interest in STEM subjects, and by offering financial support to those who most need it, we hope to attract students from a wider range of social backgrounds. We're also working to inspire more girls to pursue careers in engineering.

Our first goal is therefore to increase diversity, because it enriches our community. The second is to ensure that diversity is respected and appreciated.

### What actions have you implemented at ParisTech and in the schools?

Since I took on this role, we've continued working on projects that foster a culture of diversity across the schools. In 2019, the Diversity Commission organised a workshop on gender equality to look at what steps could be taken to address the issue of sexual harassment. Based on the discussions, we put together a booklet of actions aimed at preventing sexual harassment. It's essential that we create a supportive environment where victims feel safe and know they will be taken seriously.

Another workshop was held just before lockdown, this time focusing on diversity. Students and staff (both administrative and academic) came together to talk about their experiences of diversity and related issues. The student participants included men, women, international students, French students, LGBT students and students with disabilities – a reflection of the diversity of our community. Moreover, some had also taken the time to interview their classmates. Each of the schools used the ideas and information to develop their diversity action plan.

Another key way in which ParisTech is addressing the issue of diversity is the "*Cordées de la réussite*" initiative. The partnerships help young people from a variety of social and cultural backgrounds find out more about the courses we offer and the funding opportunities and entry routes that exist. A new partnership has recently been set up between the *Lycée Pierre-Gilles de Gennes* and

Chimie ParisTech, AgroParisTech and Arts & Métiers.

Finally, we're also in the process of creating a Chair for Diversity.

### How do you plan to make the schools more accessible to students from all backgrounds?

It's complicated, because the schools recruit most of their students via the CPGE route (intensive courses that prepare students to take the competitive entrance exams for admission to the *grandes écoles*), where there is a notable lack of diversity. To address this, we've set up alternative entry routes and we recruit students internationally, but it's not enough. We need to do more. We need to think about how we can inform pupils about their options earlier on. How can we convince them that they have the skills they need to apply to the *grandes écoles*, irrespective of their gender or social background?

It's also important that we look at ways to get more girls into engineering. There's a lot of groundwork to be done. It means going into secondary schools and high schools to talk to pupils – and that's no small undertaking. One example of an association that's doing a great job in this respect is "*Elles bougent*" (Women on the Move).

The "*Cordées de la réussite*" partnerships with secondary schools are also a core part of our efforts. I firmly believe in the importance of role models. Giving younger pupils the chance to meet students from the ParisTech schools helps them realise that our students are "normal" young people from all kinds of backgrounds. The ParisTech schools are often stereotyped. People assume there's no diversity, but that's not the case at all.

Apprenticeships also help foster diversity in the schools, but before students get here, they don't realise that we run apprenticeship programmes. We need to communicate better. And we also need to encourage students from our apprenticeship programmes to share their experiences with the next generation.

### There's been a lot in the press lately about harassment in higher education institutions. How are you tackling this issue?

It's a complicated topic, and it's true that harassment seems to be more prevalent in *grandes écoles* than in universities. The difference probably stems from the fact that students at *grandes écoles* are in a smaller bubble. There's more of a "class spirit", and much of student life takes place on campus. Sadly, harassment is more likely to occur in that kind of environment.

We need to inform and train students so that they're more aware of these issues. And I think that applies to alumni too. They need to understand that certain activities and behaviours they engaged in during their studies were not acceptable. Other than raising awareness, of course there is a need for sanctions too. We can't ignore things just because they're "tolerated" or seen as "the norm".

### You mentioned that you're planning to create a Chair for Diversity. Can you tell us more about that?

The idea is to focus on the following question: How can we best equip students to manage diversity in their future roles as managers? Corporate environments are not all that different to academic environments. Companies know that promoting and preserving diversity is essential, because it's

a strength, but they face challenges in this respect. They do their best to inform and train their employees, but expectations and perceptions change very quickly, and training methods that worked previously become outdated and unsuitable.

The chair's corporate partners will be able to test their training materials on our students – the managers of tomorrow – in a context that is similar to their own. We believe the activities will be inspiring and beneficial for students too, as they will have the chance to truly engage with the topic and share their own views.

A representative from each company will attend the sessions to analyse how the students use and respond to the training tools. If the resources and role plays prove to be unsuitable, changes will be suggested and new versions will be tested in the same context the following year.

There's potential for companies from all kinds of sectors to get involved, because the ParisTech schools cover multiple areas of expertise. This in turn means we will be able to tackle a variety of topics and refine our ideas. The chair will help us boost diversity in the ParisTech schools and encourage companies to open up about this topic.



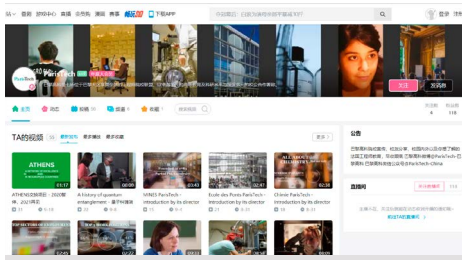
## ZOOM

### Les Cordées: Tutors as enthusiastic as ever

A survey of former tutors from the four ParisTech schools involved in the "*Cordées de la réussite*" partnership scheme (AgroParisTech, Arts et Métiers Institute of Technology, École des Ponts ParisTech, MINES ParisTech) has been carried out to investigate how the partnerships work, what prompts tutors to get involved, and whether there are areas for improvement. The responses revealed three sources of motivation: a desire to help, an interest in teaching, and "a duty to pass on the knowledge that got me to where I am today". Tutors encounter very different situations depending on the type of partnership they participate in (cultural activities for secondary/high school pupils, academic support for *prépa* students or those taking the *Baccalauréat*), but they all agree that it's a valuable opportunity: "All in all it's a great experience. You get to make a difference and do something useful, you're helping the pupils", "You really do learn a lot", "Having students from *grandes écoles* come and support them gives the pupils confidence".

## THE LATEST FROM PARISTECH

### COMMUNICATION



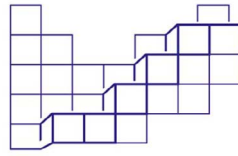
Over the past year, ParisTech China has been reinforcing its social media presence. A [LinkedIn page](#) and a [Twitter account](#) were created at the end of 2019, followed by a [Bilibili video channel](#) in May 2020 (chosen because it is available in China). The official WeChat account (which has the most followers) has been revamped. Last but not least, the [Weibo account](#) (equivalent to Facebook) allows ParisTech China to link together all of its other accounts and share new content. With almost 5,000 followers between them, these social media accounts are key communication tools for ParisTech China.

### TEACHING



The ParisTech schools were able to welcome almost all of their students for the new term, both from France and overseas. By turning to blended learning and online teaching resources and platforms and implementing social distancing and health and safety measures, the schools have been able to adapt to the new constraints, demonstrating a great deal of flexibility and imagination in the process. The aim has been to run classes in the best possible conditions (whether in person or online) while maintaining the highest standards of teaching excellence. Congratulations to all the teaching teams who have made this possible!

### DIVERSITY



#### Lycée Pierre-Gilles de Gennes

The ParisTech/ENCPB “Ambition Sciences” partnership (part of the “*Cordées de la réussite*” scheme) was officially recognised in July 2020. Headed up by the Lycée Pierre-Gilles de Gennes (ENCPB), it aims to promote success in science subjects and break down barriers. ENCPB will support pupils at seven secondary schools in Paris (in priority education areas), and AgroParisTech, Arts & Métiers and Chimie ParisTech - PSL will mentor *prépa* students at ENCPB. Participation is voluntary and students are selected based on social criteria, in particular gender parity. Through the scheme, pupils discover new ways of thinking and working and can visit labs and attend events at the ParisTech schools.

### PARISTECH FOUNDATION



The ParisTech Foundation published its [2019 annual report](#) (in French only) on 20<sup>th</sup> July. We are always delighted to showcase the achievements of our supporters and the values of our sponsors, and given the unprecedented adversity that we – like so many across the country – have had to overcome, we are prouder than ever that we have managed to finish this report. With fintech, medtech, legaltech and other “techs” on everybody’s lips, it seems only right to point out that the ParisTech brand name was trademarked in April 1999 – a sign of the pioneering vision of the schools. In 2019 the ParisTech Foundation officially renewed the trademark for another ten years.

### INTERNATIONAL



Co-funded by the Erasmus+ Programme of the European Union



ParisTech has helped the schools achieve success in a number of international projects. Three schools (École des Ponts ParisTech, Chimie ParisTech - PSL, MINES ParisTech - PSL) are part of the [EELISA](#) consortium that has been awarded funding in the second round of the Erasmus+ European universities initiative. Furthermore, all seven schools have secured funding under the Erasmus+ International Credit Mobility scheme to develop a partnership with the University of Nairobi in [Kenya](#).

Finally, the China Scholarship Council (CSC) has awarded grants to a number of Chinese students wishing to study in France: 46 for engineering courses, and 33 for doctoral degrees at schools covered by the ParisTech agreements. Welcome to France!

### INTERNATIONAL ACTIONS

#### Agreements

Renewal of the double-degree agreement with the University of São Paulo - São Carlos School of Engineering (Brazil)

Cooperation agreement with the Kwame Nkrumah University of Science and Technology (Kumasi, Ghana)

Academic cooperation agreement with the University of Science and Technology of China (USTC)

Renewal of the “9+9” agreement with the China Scholarship Council

Cooperation agreement with the University of Nairobi (Kenya)

## NEWS FROM THE SCHOOLS



### AgroParisTech

**POFiné: Tasty and nutritious.** Students from AgroParisTech took second place in the EcoTrophelia competition with a dessert aimed at people in retirement homes or assisted living facilities. Named POFiné, the dessert is a source of protein, omega-3 and fibre, and has a dual texture suited to those who have difficulty chewing their food. The product is adapted to the nutritional needs of the elderly and its flavour is reminiscent of the pastries they used to enjoy as children. The project won both the silver Trophelia prize and the *Innovation Nutrition* prize.



### Arts et Métiers Institute of Technology

This year, the Arts & Métiers student ambassadors ran their communication campaign for candidates interested in the *grande école* programme as a virtual event. The aim was to present the school and answer candidates' questions – and it was a huge success! The statistics speak for themselves: 1,160 members in the 2020 Facebook group, 15 live streams, 9,486 views and 125 questions asked live on air!



### Institut d'Optique

**New teaching practices for students on the FISA apprenticeship programme.**

The second semester of the FISA apprenticeship programme has been restructured for January 2021. Students will benefit from innovative new teaching practices based on four principles: constructive alignment, a pace of learning that combines interleaving and spacing, active learning, and metacognitive awareness. The new model was designed as part of the "Action Research" chair of the *Université Paris-Saclay*, in conjunction with the *Université du Québec* in Montreal.



### Chimie ParisTech - PSL

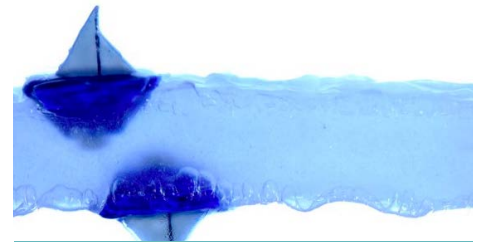
The new term is underway at Chimie ParisTech - PSL, but things are rather different this year. Students and staff are wearing masks and courses are being delivered through blended learning so that teaching can continue in compliance with the latest social distancing and hygiene rules. The hybrid model combines face-to-face classes with online sessions to limit the number of staff and students on site at any one time. Lecture theatres and classrooms are only being used at half capacity, and all students are following a rotating timetable, taking it in turns to attend in-person and at home, via online platforms.



### École des Ponts ParisTech

**"XXHL giga towers and mega bridges" exhibition opens.** The École des Ponts ParisTech is partnering the "XXHL giga towers and mega bridges" exhibition which opened at the Paris Cité des Sciences et de l'Industrie on 1<sup>st</sup> September 2020. The immersive digital exhibition reveals

the extraordinary ingenuity and technical prowess required to build these monumental structures. It is set to run until 7<sup>th</sup> March 2021.



### ESPCI Paris - PSL

**Archimedes' principle... upside down!** Can you make a boat float on the underside of a levitated liquid? According to a team of researchers at the Institut Langevin and the PMMH lab of ESPCI Paris - PSL, yes, you can. In an article published in *Nature*, the team presents an upside-down flotation experiment which uses vertical vibrations to keep a layer of liquid levitated above a cushion of air. The counterintuitive results challenge our understanding of air-liquid interfaces and raise questions about the behaviour of liquids in such conditions. [Find out more](#) (French only).



### MINES ParisTech - PSL

MINES ParisTech has welcomed its new civil engineering students. The 2020 cohort consists of 128 students, 23% of whom are women. As for returning students, 160 are going into second year (31% women) and 201 into third year. 131 students have opted to do a year in industry (up from 104 students last year). This is taken between the 2<sup>nd</sup> and 3<sup>rd</sup> years of the programme. Two students are pursuing a double degree at HEC. Finally, 3<sup>rd</sup> year admissions of students from the Ecole Polytechnique, ESPCI and ENS are still high, with 47 students enrolling via these routes this year.

## 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.

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