



CREST

CENTER FOR RESEARCH
IN ECONOMICS AND STATISTICS

PRESENTATION SHEET 2023 - 2024



INSTITUT
POLYTECHNIQUE
DE PARIS



The Center for Research in Economics and Statistics (CREST) is a French scientific research institution specialising in quantitative methods applied to the social sciences.

CREST is a joint interdisciplinary unit made up of researchers and teachers from the CNRS, GENES and the economics department of École polytechnique. Its activities are physically located in the ENSAE Paris building on the Palaiseau campus of Institut Polytechnique de Paris and on the Ker-Lann campus of ENSAI Rennes.

CREST's common culture is characterised by a strong commitment to quantitative methods, mathematical modelling and the interplay between models and empirical facts in order to analyse economic and social problems. The laboratory's main areas of research are economics, finance, statistics, actuarial sciences and sociology.

One of the main challenges of the laboratory's scientific production project is the national and international promotion of its activities.

KEY FIGURES

140	Permanent researchers and teacher-researchers
12	Post-docs
100	PhDs
59%	Internationals
4	Research clusters
2	Sites (Palaiseau & Bruz)
4	ERC Grants
200	Publications per year

ADMINISTRATIVE SUPERVISION

The **Groupe des Écoles Nationales d'Économie et Statistique (Genes)** is a public higher education and research establishment specialising in economics, statistics, sociology, marketing, finance, massive data and statistical learning. It is attached to the Ministry of the Economy, Finance and Recovery, with INSEE as its technical supervisory body. Genes comprises two engineering schools (ENSAE Paris and ENSAI), a joint research unit (CREST) and a continuing education organisation (ENSAE-ENSAI Formation Continue). It is also a member of the public interest group CASD (Secure Data Research Centre) and has a private development subsidiary called DATASTORM, which provides consultancy and expertise to the public and private sectors. The components of Genes are renowned for their excellence in research and training, which is appreciated by companies and government departments. They adopt a multidisciplinary approach and use advanced mathematical modelling to offer cutting-edge expertise in quantitative human sciences.

École polytechnique (X) is a prestigious higher education and research establishment in France. Founded in 1794, it is recognised worldwide for its academic excellence and its training of top-level engineers. École polytechnique offers a multidisciplinary curriculum focusing on engineering sciences, mathematics, physics, computer science, economics and the humanities. Students benefit from a stimulating environment that fosters creativity, leadership and innovation. École Polytechnique also places great emphasis on cutting-edge scientific research in fields such as artificial intelligence, materials, energy, applied mathematics and many others. Thanks to its alumni network, Polytechnique offers numerous professional opportunities and is recognised as a talent pool for companies, organisations and institutions worldwide.

The **French National Centre for Scientific Research (CNRS)** is one of the world's leading research institutions. Its scientists explore life, matter, the Universe and the workings of human society to meet the major challenges of the present and the future. Internationally recognised for the excellence of its scientific work, CNRS is a benchmark both in the world of research and development and for the general public.

MOBILITY & INTERNATIONAL PLACEMENT

Doctoral students at CREST can undertake academic visits to prestigious universities. These visits aim to allow them to meet the world's top researchers in their field and showcase their own work. Recently, our doctoral students spent several months at Harvard University and the University of California, Berkeley, two of the most renowned institutions in the world for research in economics and social sciences.

At the end of their program, our doctoral students can apply for positions worldwide through the international job market. CREST provides them with enhanced support to prepare their applications and enable them to succeed. Thanks to this effort, our candidates have recently been hired at some of the best universities in Europe and around the world (Princeton, Cornell, UCLA, Bocconi, LMU, PSE, and more).



INSTITUT POLYTECHNIQUE DE PARIS



The **Institut Polytechnique de Paris (IP Paris)** is a public higher education and research establishment that brings together five leading French engineering schools: École polytechnique, ENSTA Paris, ENSAE Paris, Télécom Paris and Télécom SudParis. CREST is, since then, identified as a laboratory of IP Paris among 30 laboratories.

Under the aegis of the Institute, they are pooling their two-hundred-year-old expertise to pursue two major ambitions: to develop excellent training programmes and cutting-edge research. Thanks to the roots of its five founding schools, the Institut Polytechnique de Paris is positioned as a leading teaching and research institution in France and internationally.

École polytechnique, ENSTA Paris, ENSAE Paris, Télécom Paris and Télécom SudParis have all contributed to the major industrial and technological revolutions of the last two centuries. Graduates of these schools include several Nobel Prize winners, as well as leading figures from the worlds of politics, business and research.

ENSAI



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ENSAI is a prestigious French graduate school specialising in statistics and information analysis. Located in Rennes, on the Ker Lann campus in Brittany, ENSAI has been training experts in statistics and data analysis for 20 years, meeting the needs of businesses and public institutions. Renowned for its academic excellence and practical approach, ENSAI offers a high-level education combining theory and practical application, enabling students to acquire the skills and knowledge needed to meet the complex challenges of the data age.

Working closely with CREST, ENSAI benefits from cutting-edge expertise and an interdisciplinary approach. This collaboration reinforces the excellence of the study programmes and offers unique opportunities to conduct research and work on applied projects.

RESEARCH

The CREST laboratory enjoys national and international recognition thanks to the excellence of its research. Our researchers are committed to creating and disseminating cutting-edge knowledge, thus making a significant contribution to the global scientific community. This excellence is evident in the quality of academic journals publishing the work of our researchers, such as the American Economic Review, the Journal of Political Economy, the Annals of Statistics, the Journal of the Royal Statistical Society, and the Annual Review of Sociology. These achievements illustrate the significant impact of our laboratory in economics, statistics, finance and insurance, and sociology.

CREST also owes its international visibility to its diverse community of 250 professors, researchers, and doctoral students. Fundamentally interdisciplinary, CREST conducts innovative research in various fields of economics (microeconomics, labor economics, environmental economics, etc.), statistics (nonparametric statistics, high-dimensional statistics, machine learning, etc.), finance and insurance (financial econometrics, sustainable and environmental finance, geometry for optimization and learning, etc.), and sociology (politics, artificial intelligence, inequalities and discrimination, etc.).

CREST offers its researchers optimal research conditions, both in terms of equipment and funding. This enables it to recruit post-docs, assistants and associate professors on the international academic job market every year.

Research at CREST benefits from :

- Competitive external grants from the European Research Council (ERC) and the French National Research Agency (ANR);
- An ANR-funded laboratory of excellence in economics and decision sciences (LabEx ECODEC, in partnership with HEC Paris);
- Hi! PARIS, the Centre for Data Analysis and Artificial Intelligence for Science, Business and Society, set up by Institut Polytechnique de Paris (IP Paris), HEC Paris and Inria;
- E4C, the interdisciplinary Energy4Climate Center set up by Institut Polytechnique de Paris and the École des Ponts ParisTech;
- The University Research School (EUR), financed by public funds, to strengthen Master's and PhD level training:
 - EUR "Data Science for Economics, Finance and Management" in partnership with HEC Paris.
 - EUR "CyberSchool" and "Digisport" in partnership with the University of Rennes.
- Institut des Politiques Publiques (IPP), in partnership with Paris School of Economics;
- Laboratory of Economics and Decision Sciences (LabEDS);
- Research chairs and doctoral fellowships supported by public-private partnerships.



4 research clusters:

Economics
Finance-Insurance
Sociology
Statistics

In addition to its research mission, a major challenge for CREST is to disseminate its scientific culture and expertise throughout higher education.

Master programmes

At Master's level, CREST members teach in the various programmes of the Institut Polytechnique de Paris (École polytechnique, ENSAE Paris, Télécom Paris) and ENSAI in the following fields:

- Economics
- Data Science
- Statistics
- Finance
- Insurance
- Sociology
- Applied Mathematics
- Public Policy
- As well as in the engineering cycles of the École polytechnique, ENSAE Paris and ENSAI.

Doctoral programmes

At doctoral level, CREST offers optimal research conditions for students wishing to pursue doctoral research at the Institut Polytechnique de Paris or ENSAI.

Our doctoral students have an excellent placement rate in the private, public and academic sectors in France and abroad, including universities such as Berkeley, Chicago, Cornell, Harvard and Princeton.

In addition, the 5-year integrated PhD track programmes at the Institut Polytechnique de Paris offer students the opportunity to develop advanced research skills along a doctoral pathway encompassing master's and PhD training. CREST participates in PhD Track programmes in economics (in cooperation with HEC Paris), data and artificial intelligence and mathematics.

23
Master's
programmes

7
Institutional
partners



SUPPORT

INTERNATIONAL

The **Welcome Desk of Foreign Talents(GATE)** is an international welcome office dedicated to all international students and researchers on the Plateau de Saclay, providing assistance with transport, health insurance, residence permits, accommodation and opening a bank account.

<https://gate.paris-saclay.fr/en/>

The **International Center for French Language and Culture** at the Institut Polytechnique de Paris aims to promote excellence for all international students arriving on our campus, in all aspects of their experience of French and Francophone language and culture. The International Center for French Language and Culture has three distinct areas of activity: culture, research and academia.

<https://www.ip-paris.fr/en/campus/international-center-french-language-and-culture>

CREST benefits from the support of the Association **Science Accueil**, which assists international students and researchers with administrative formalities and finding accommodation. It also offers cultural events and French courses.

www.science-accueil.org

IP Paris Doctoral Student Welcome Booklet

<https://www.ip-paris.fr/en/welcome-booklet-phd-students-ip-paris>

Contact

If you have any questions, please contact international.crest@ensae.fr

COMMUNICATION

CREST's internet communication is provided by an **intranet** where everyone can find the information they need for their daily life in the laboratory.

<https://intra.crest.science>

The laboratory's supervisory bodies provide a **CREST welcome booklet** for new arrivals. Feel free to consult the document to obtain all the administrative information you need from our intranet.

Communication support

For all your communication projects, including articles, written interviews and videos, please contact

communication.crest@ensae.fr.

LISTENING UNIT

In order to prevent discrimination, sexual harassment and/or gender-based and sexual violence and to support all victims, CREST has set up a helpline for everyone.

In all situations, contact the members of the unit (list available on the intranet).

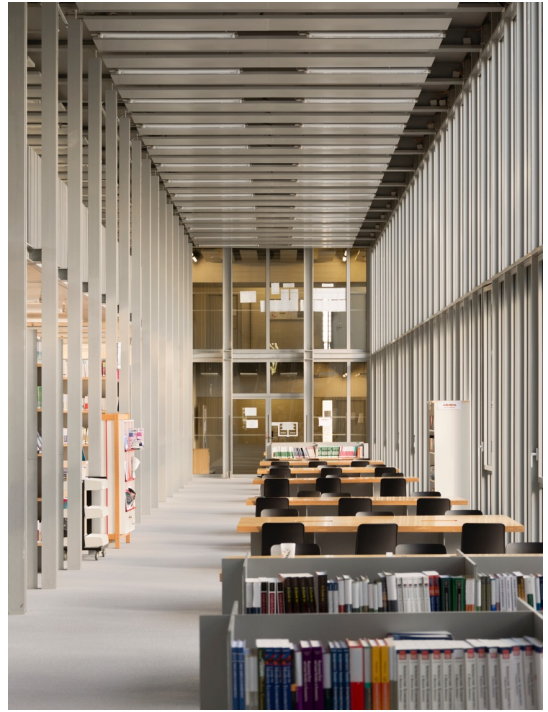
INNOVATION

The **Drahi X-Novation Center** is École polytechnique's entrepreneurship and innovation centre. It is an incubator for early stage start-ups. It offers programmes dedicated to projects in the seed phase.

All are supported in the structuring, development or acceleration of their Deep Tech or high-tech projects.

This support is dedicated to projects in the seed phase as well as more mature start-ups with a business incubator.

<https://www.polytechnique.edu/innovation/e-drahi-x-novation-center-notre-incubateur-de-startups>





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