A WORD FROM
THE DIRECTOR

Present in the best national and international rankings and improving its performance every year, École des Ponts ParisTech enjoys an undisputed national and international reputation. The quality of its multidisciplinary curriculum and innovative teaching methods is underpinned by excellence in research and close ties to the world of business and industry. Although its prestige has been traditionally founded on civil, environmental, and mechanical engineering, École des Ponts ParisTech today provides top-level training in a wide variety of fields, ranging from applied mathematics and economics to industrial engineering. École des Ponts ParisTech trains high-potential engineers and future senior executives with a scientific and technical background who will be called upon to rise to the great societal challenges of today and tomorrow, especially in relation to the ecological transition.

The School in Figures gives an introductory overview of our school in all its rich diversity, revolving around three main missions: training, research and the dissemination of knowledge.

ANTHONY BRIANT
Director of École des Ponts ParisTech

FACULTY

333
teaching staff in charge of modules

99
professors, 7 assistant professors and 80 lecturers

1,243
part-time and non-tenured teaching staff

RESEARCHERS*

484
researchers and professors

651
PhD students and postdoctoral fellows

995
rank A publications, including including 48% with a foreign partner

$10.2 M
in revenues from research partnerships, 56% of which is directly linked to companies

STUDENTS

1,971
students altogether

952
ENGINEERING STUDENTS

294
ON THE ADVANCED “MASTÈRE” AND SPECIALIZED TRAINING COURSES

183
PHD STUDENTS REGISTERED WITH ÉCOLE DES PONTS PARISTECH

190
MASTER’S AND MASTER OF SCIENCE STUDENTS, INCLUDING 66 ON DUAL-DEGREE COURSES

406
MBA STUDENTS

12
STUDENTS ON THE POST-COMPETITIVE EXAM PROGRAM FOR STATE URBAN PLANNING ARCHITECTS (AUES)

* Scope: the School’s laboratories
THE SCHOOL IN NATIONAL AND INTERNATIONAL RANKINGS

OS World University Rankings 2023:
The School continues to make progress and has obtained its highest ranking yet with a gain of 71 places compared to the 2022 overall rankings, now standing at number 174.
The School is thus in 6th place among ranked French institutions:
- the score for the Citations per faculty indicator doubled this year
- the Employer reputation score gained 9 points, rising by 50 places.

OS World University Rankings by subject 2022:
The School has maintained its position or progressed in the rankings in 6 fields since the 2021 edition.
- It has risen to 1st place for French schools in the Engineering - Civil & Structural category and the top 51/100 in international ranking
- It lies in the top 251/300 in the Computer Science & Information Systems ranking, where it has climbed dramatically to gain 250 places over last year’s listing
- It ranks in the top 251/300 in Environmental Sciences, a gain of 100 places
- It maintains its place among the 251/300 top universities in the Engineering – Mechanical, Aeronautical & Manufacturing categories
- It entered the top 201/300 in 2022 for the first time in the Statistics & Operational Research category and the top 501/550 for Business & Management Studies.
This annual ranking features 1,543 top international universities and higher schools, in 88 countries.

THE (Times Higher Education) 2022 ranking:
Coming in at 251/300, École des Ponts ParisTech has become the 6th leading French institution (+1 place since 2021) and the 1st French institution of under 5000 students. A total of 1,600 institutions in 99 countries feature in this ranking. Data collection is based on 13 indicators which evaluate the performance of an institution in four areas: teaching, research, transmission of knowledge and international opportunities.

The School comes 4th in the Usine Nouvelle and Etudiant rankings:
The School earns 4th place in the Usine Nouvelle overall ranking, 134 institutions were evaluated. In 2022, the School progressed in terms of the Student Integration (from 10th to 3rd) and Research (14th to 12th) criteria.
In the Etudiant rankings, the School holds on to its 4th position in the higher schools category, which evaluated 172 institutions.

INTERNATIONAL RELATIONS

65 PARTNERS INSTITUTIONS
46 DUAL-DEGREE AGREEMENTS
61 STUDENTS STUDYING ENGINEERING ABROAD
730 FOREIGN STUDENTS INCLUDING 64 ON DUAL DEGREE ENGINEERING COURSES

EUROPE:
- 34 partner institutions
- 19 dual degree agreements
- 15 Erasmus+ exchange agreements

AMERICAS:
- 15 partner institutions
- 13 dual degree agreements
- 2 exchange agreements

ASIA:
- 8 partner institutions
- 8 dual degree agreements

AFRICA AND THE MIDDLE EAST:
- 8 partner institutions
- 6 dual degree agreements
- 2 exchange agreements

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ENGINEERING TRAINING

YEAR 1
- Consolidation of scientific and general knowledge, projects (research and departmental)
- Work experience internship: a 4-week practical in-company internship completes the year

THE MASTER’S PROGRAM

Year 2:
Choice of a department for a specialization:
- Civil and Structural Engineering
- City, Environment, Transportation
- Mechanical Engineering and Materials Science
- Industrial Engineering
- Economics, Management, Finance
- Applied Mathematics and Computer Science

Year 2 internship:
Between Years 2 and 3, 82% of the cohort complete a year-long internship, with around 30% going abroad (pre-COVID pandemic). The other students complete a short (3-month) internship in a company or laboratory, 20% of them abroad (pre-COVID pandemic).

Year 3:
Terminal Project (PFE):
For a period of at least 4 months, students apply the skills acquired during their course to a particular scientific or technical problem, in a company or research laboratory. This Multidisciplinary Engineering project may be carried out individually or in groups.

MASTER’S DEGREES

MASTERS
Master’s in Applied Mathematics awarded by the École des Ponts ParisTech
5 pathways:
- Probabilities and Stochastic Models (PMA)
- Mathematics for Finance and Data (MFD)
- Mathematics, Vision, Learning (MVA)
- Modeling, Analysis, Simulation (MAS)
- Operational Research (RO)

Master’s in Energy awarded by the École des Ponts
ParisTech
1 pathway:
- Energy transition at Local level (TEL)

Master’s in Nuclear Engineering (co-accreditation with Université Paris Saclay, Institut Polytechnique de Paris and Université Paris Sciences & Lettres)
1 pathway:
- Decommissioning and Waste Management - (DWM)

Master’s in Mechanical Engineering (co-accreditation with Sorbonne Université)
2 pathways:
- Multiscale Approaches for Materials and Structures (AMMS)
- Durability of Materials and Structures (DMS)

Master’s in Civil Engineering (co-accreditation with Université Gustave Eiffel)
1 pathway:
- Mechanics of Soils, Rocks and Structures in their Environment (MSROE)

Master’s in Materials Science Engineering (co-accreditation with Université Gustave Eiffel and UPEC)
1 pathway:
- Materials Science for Sustainable Construction (SMCD)

Master’s in Transport, Mobility, Networks (co-accreditation with Université Gustave Eiffel, UPEC, Institut Polytechnique de Paris and Université Paris Sciences & Lettres)
2 pathways:
- Transport and Mobility (TM)
- Transport and Sustainable Development (TraDD)

Master’s in Environmental, Energy and Transportation Economics (co-accreditation with Université Paris-Saclay, Université Paris Nanterre and IFP School)
3 pathways:
- Environmental Economics (EEET)
- Economics of Energy (EEET)
- Prospective Modeling (EEET)

Master’s in Applied Economics (co-accreditation with Université Paris Sciences & Lettres and EHESS)
1 pathway:
- Public Policy and Development (PPD)

Master’s in City and Urban Environments (co-accreditation with Université Gustave Eiffel and Cy Cergy Paris Université)
1 pathway:
- Environmental Services Management and Engineering (MISE)

Master’s in Analysis and Economic Policy (co-accreditation with Université Paris 1 Panthéon-Sorbonne, Université Paris Sciences & Lettres and EHESS)

MASTER OF SCIENCE
- Sustainable Impact Analysis (SIA)

INNOVATION AND DESIGN CENTER (D. SCHOOL PARIS)

4 main objectives:
- Train engineering students in innovation approaches and methods through uses and design (design thinking, co-design, user-centric design, etc.)
- Act as a resource center to provide tools for innovative initiatives and support students, researchers and administrative staff
- Encourage interactions and foster collaboration on issues relating to uses, design and ecological transition
- Train and help companies to understand the design-thinking world and culture through interactive, customized workshops
ADVANCED MASTER’S PROGRAMS
(MASTERE SPECIALISE®)

FULL-TIME
- Spatial planning and Urban Development
- European Civil Engineering
- Engineering of Large Energy Structures with CentraleSupélec
- Public Policies and Actions for Sustainable Development with AgroParisTech

PART-TIME
- Digital Building Design
- Sustainable Real Estate and Building, Carbon and Digital Transitions
- BIM Integrated Design and Life Cycle of Buildings and Infrastructures with ESTP Paris
- Railway and Urban Transport System Engineering with INSA Hauts-de-France and Université Technologique de Compiègne
- Smart Mobility – Digital Transformation of Mobility Systems with Télécom Paris
- Supply Chain Design & Management with IML
- Infrastructure Project Finance
- “Action Publique Avancée Maroc” (Advanced Public Action for Morocco) with Université Mohammed VI Polytechnique
- Management of Energy Projects

DOCTORAL TRAINING
The School has substantial research capacity with 12 top-level laboratories hosting:
- 183 PhD students registered with the School in 2021/2022, including 42% overseas students and 31% women

5 co-accredited Doctoral Schools:
- “Science, Engineering and Environment” Doctoral School (SIE): The laboratories CEREA, HM&CO, LEESU, LHSV and Navier are attached to this doctoral school.
- “City, Transport and Territories” Doctoral School (VTI): The laboratories LATTS, LVMT and CIRED are attached to this doctoral school.
- “Mathematics and ICT” Doctoral School (MSTIC): The laboratories CERMICS and LIGM are attached to this doctoral school.
- “Organizations, Markets and Institutions” Doctoral School (OMI): The laboratory LATTS is attached to this doctoral school.
- Panthéon-Sorbonne Economics Doctoral School (EPS): The PjSE laboratory is attached to this doctoral school.

CONTINUING EDUCATION
ÉCOLE DES PONTS BUSINESS SCHOOL
The Business School, accredited by the Association of Masters of Business Administration (AMBA), has existed since 1987. It runs programs that are innovative and transformative, both in their philosophy and their teaching methods:
- Executive Doctorate of Business Administration (Paris)
- DBA in Intelligent Managing (Management (Shanghai)
- LeadTech Global Executive MBA (Paris and Barcelona, joint French-Spanish degree)
- Global Executive MBA (Casablanca)
- FTFT Executive MBA (Beijing, joint French-Chinese degree)
- Aviation and Aeronautics Executive MBA (Beijing, joint French-Chinese degree).

PONTS FORMATION CONSEIL
Ponts Formation Conseil is France’s leading continuing education center for engineering schools.

IHEDATE (INSTITUTE OF ADVANCED DEVELOPMENT AND PLANNING STUDIES IN EUROPE)
IHEDATE’s annual training cycles is supported by the State (National Agency for Territorial Cohesion and various ministries), the Territorial Banks - Caisse des Dépôts, local government groupings (JACDF, France Urbaines, Régions de France, GART), CEREMA, the City of Paris, private and public companies (Colas, ENEDIS, EDF, Groupe La Poste, SNCF Réseau, Bouygues, Nhood, RTE, SMABTP, Leonard-Vinci, Transdev) and professional bodies (ASFA, FNTP, Routes de France, UIMM).
THE LABORATORIES

12 research laboratories, of which 6 are CNRS Mixed Research Units (own laboratories or in partnership with academic players, public organizations and companies).

> 4 CORNERSTONE DISCIPLINES:

Mathematics and Computer Science
- CERMICS: applied mathematics, scientific computing, modeling optimization
- LIGM: theoretical computing, natural language analysis, image- and signal-processing, algorithmics, formal calculus

Mechanics and Physics of Materials and Structures
- NAVIER: mechanics and physics of materials and structures, applications in geotechnics, civil engineering, geophysics and the oil industry
- LHSV: fluid mechanics applied to hydraulics and the environment (rivers, coasts and harbors)

Environmental Sciences and Engineering
- CEREA: air quality, pollutant dispersion and transportation, atmospheric modeling on an urban and regional scale, data assimilation
- CIRED: development and environmental economics, energy/waste/transport/water/food issues, global environmental challenges, precautionary principle, modeling
- HM&Co: multi-scale observation and analysis, system-based analysis, management of water as a risk and resource, hydrology for a resilient city
- LEESU: the urban milieu and its environment, analysis of urban and peri-urban territories in their sociotechnical and environmental functioning
- LMD: atmospheric dynamics, study of the climate and its interannual fluctuations, continental and global scales

Economics & Social Sciences
- LATTS: social sciences, spatial planning, history, dialog between social sciences, technology and engineering, in private sector companies and the public sector
- LVMT: analysis and modeling of interactions between transport and spatial planning
- PjSE: theoretical economics, public economics and labor market economics

4 SOCIOECONOMIC PRIORITIES IN THE ECOLOGICAL TRANSITION

Research activities that contribute to meeting the challenges of 4 socioeconomic priorities in sustainable development:
- City and mobility systems
- Management of environmental risks and resources
- Industry of the future
- Economics, practices and society

PROGRAMS STRUCTURING SCIENTIFIC COMMUNITIES

- Bézout (LabEx): Deterministic and stochastic models, discrete mathematics and algorithms, high-dimensional phenomena, imaging and geometry
- Futurs Urbains (LabEx): Environment, transport, planning, architecture for the urban world
- MMCD (LabEx): Multiscale modeling and experimentation of materials for sustainable construction, properties of civil engineering and environment materials
- OSE (LabEx): Economics, globalization and development, markets and organizations, foundations of individual, strategic and social behavior
- SITES (LabEx): Science and technology, society, research and innovation processes and policies
- EUR IPSL-CGS: Climate change issues and impacts
- E4C, Energy for Climate: Interdisciplinary center created by Institut Polytechnique de Paris and the School: research and training in energy and climate issues

THE INDUSTRIAL RESEARCH CHAIRS

CITY AND MOBILITY SYSTEMS
- Maintenance of civil engineering structures (NAVIER): with Sanef-Abertis
- Sciences for rail transportation (NAVIER): with Getlink
- What regulations for the city of the future? (LHSV - LATTS): with RATP
- Territorial Mobility (CIRED): with Ile-de-France Mobilités
- Environmental research lab (LVMT - NAVIER): with Vinci, AgroParisTech and Mines Paris-PSL

ENVIRONMENTAL AND RESOURCES MANAGEMENT
- Fluid mechanics applied to hydraulics and the environment (LHSV): with EDF R&D
- Hydrology for a resilient city (HM&Co): with Veolia-Veri
- Financial risk (CERMICS): with the Fondation du Risque and its founder Société Générale, École Polytechnique and Sorbonne Université

INDUSTRY OF THE FUTURE
- Artificial intelligence for aviation (CERMICS): with Air France
- Materials science for sustainable construction (NAVIER): with LafargeHolcim
- Sustainability of energy-related materials and structures (Mechanical Engineering and Materials Department): with EDF-DPN
- Supply Chain of the Future (CERMICS, Industrial Engineering Department): with Renault, Louis Vuitton, Casino (CDiscount) and Michelin

ECONOMICS, PRACTICES AND SOCIETY
- Prospective modeling for sustainable development (CIRED): with EDF, TotalEnergies, Schneider Electric, ADEME, GRifgas, RYE and Mines Paris-PSL
- Development and financing of sustainable infrastructure projects (CIRED/Economics, Management and Financial Science Department): with Meridiam
- City, Industry and Ecological Transition (CIRED) with the CNRS
LIBRARY, STI* DEPARTMENT, HERITAGE AND ARCHIVES

LIBRARY

- **200 SEATS**
  6 project spaces, 4 carrels, individual work spaces including at La Source, the School’s Learning Center

- **33,000 VISITS TO LA SOURCE**
  10,000 documents issued, 100,068 articles downloaded each year

- **170,000 DOCUMENTS**
  available for Bachelor’s year 3, Master’s and research, covering the School’s research and teaching fields

- **20,300 PAPERS BY STUDENTS**
  including 3,500 digital documents

- **15,000 E-JOURNALS**

- **98,000 E-BOOKS**

- **301,000 CONNECTIONS**
  to the document portal bibliotheque.enpc.fr ; more than 1000 searches processed via the virtual information desk

- **2 SEALS OF EXCELLENCE:**
  Associate branch of the French National Library for civil engineering and construction, CollEx (Excellence in Research Collections) on the theme of The City: architecture, civil engineering and urban planning

- **15,000 E/HY-PH-EN CASE JOURNALS**

- **98,000 E/HY-PH-EN BOOKS**

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  to the document portal bibliotheque.enpc.fr ; more than 1000 searches processed via the virtual information desk

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TARGETED SERVICES FOR RESEARCHERS

- Scientific and technical information services portal: http://espacechercheurs.enpc.fr
- 74% of scientific publications are Open Access (2017-2021)
- 32,801 scientific publications deposited on the HAL-ENPC open archive, including 44% full-text deposits
- Access to the main scientific journal platforms and scientific, technical and economics databases (Web of Science, Scopus, Business Source Complete, Mathscinet, Science Direct, Springer, Wiley, ASCE, etc.)
- Opalia bibliometric platform

AN EXCEPTIONAL HERITAGE COLLECTION

- A collection of 80,000 historical documents and manuscripts, printed between the 18th and 20th centuries
- 209,348 pages of digitized heritage documents viewed, 22,875 visitors
- A photo library containing 13,000 images (bridges, canals, railway stations, portraits of engineers, etc.)
- 17,400 archive folders, corresponding to 1.75 kilometers of historical and contemporary archives
- Museum collections recording the history of France’s first engineering school

STAFF AND RESOURCES

- **505 MEMBERS OF STAFF EMPLOYED**
  by the Institution and its subsidiaries on December 31, 2021 (excluding part-time and non-tenured staff and public employees in training)

- **€48.2M OF RESOURCES**
  including a €27M public service subsidy from the Ministry for Ecological Transition and Territorial Cohesion

*Scientific and Technical Information*
FONDATION DES PONTS

A State-approved public interest entity, the Foundation raises funds from private benefactors and partner companies to help the School become ever more open to today’s world, more innovative and effective, and to promote equal opportunity, diversity and excellence among its students.

/ RESOURCES IN 2021:
- Individual donations or bequests: €0.376M from 422 donors
- Chairs or partnerships: €0.883M from 15 companies

In 2021, the Foundation supported:
- 8 teaching and research chairs
- 9 prizes to encourage excellence, promote research and foster the spirit of enterprise
- 128 students on mobility programs (incoming and outgoing)
- Training (student refugee program, 3D extruder and printers) and research with the acquisition of optical tweezers for the Navier laboratory
- 124 students through the COVID support fund
- 2 loans on trust, and more.

For more information on all the Foundation’s actions, visit: www.fondationdesponts.fr

PONTS ALUMNI

The School’s alumni association, founded in 1860, is a State-approved public interest entity. Its members are the School’s 21,100 graduates: civil engineers, high-ranking state engineers, holders of master’s degrees, PhDs and MBAs. The Ponts Alumni network is present in 11 countries and all the School’s sectors of activity. There are 7 geographical groups, of which 15 are abroad, 16 professional groups, including 4 joint groups with other Grande Écoles, 3 degree groups (MBA, Master, UrbaPonts), 1 international sponsorship group, 7 social clubs and a number of “Millesimes” groups for friendly gatherings.

LES PRESSES DES PONTS

Founded in 1977, the School’s own publishing house, Les Presses des Ponts, boasts a catalog of 220 scientific and technical publications and software packages, mainly in the fields of civil engineering, construction and spatial planning. The 2021 catalog was enriched with 7 new publications and 2 reprints.