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.

**FACULTY**

369 teaching staff in charge of modules

98 professors from the École Nationale des Ponts et Chaussées, 7 assistant professors and 82 lecturers

1,223 part-time non-tenured teaching staff

**STUDENTS**

1,900 students altogether

350 students on the advanced “mastère” and specialist training courses

939 engineering students

178 PhD students registered with École des Ponts ParisTech

169 MBA students

324 master’s and master of science students, including 75 on dual-degree courses

**RESEARCHERS**

465 researchers and professors

633 PhD students and postdoctoral fellows

968 publications (WoS or Scopus)

47% of which are with a foreign partner

€9.9 M in revenues from research partnerships

52% of which is directly linked to companies

*Scope: the School’s laboratories
INTERNATIONAL RELATIONS

72
partner institutions
35
countries on 4 continents

47
dual-degree agreements with universities
25
countries

EUROPE:
→ 34 partner institutions
→ 18 dual degree agreements
→ 16 Erasmus+ exchange agreements

AMERICAS:
→ 16 partner institutions
→ 13 dual degree agreements
→ 3 bilateral exchange agreements

ASIA
→ 16 partner institutions
→ 12 dual degree agreements
→ 4 bilateral exchange agreements

AFRICA AND THE MIDDLE EAST
→ 6 partner institutions
→ 4 dual degree agreements
→ 2 bilateral exchange agreements

THE SCHOOL IN NATIONAL AND INTERNATIONAL RANKINGS

QS World University Rankings by subject 2021: the School moves up 8 places
The 2021 rankings have confirmed the School’s progress as it gains 8 places and enters the top 250 for the first time, at number 242 (4th-highest ranking for a French institution). The school has become France’s leading institution in terms of numbers of international students, taking 32nd place in the world rankings based on this criterion. This ranking covers 1,000 institutions in 85 countries.

THE (Times Higher Education) 2021 rankings
The school is present in 4 categories (Computer Science: rank 151/175 / Engineering: rank 301/400 / Physical sciences: rank 126/150 / Social Sciences: rank 176/200). These results confirm its recognition in a wide range of scientific fields. In total, over 1,250 institutions feature in this ranking.

Le Figaro Étudiant has published its new 2021 rankings of the best engineering schools in France, as well as its rankings by subject. The School is listed in 4th place in the ranking of top-level engineering schools in 2021 with a score of 18.1/20.

The school comes 4th in the Usine Nouvelle rankings
The school holds 4th place in the overall rankings. In 2021, it has improved on two criteria: “international”, where it has moved up from 12th to 3rd place, and “employability”, where it has improved from 12th to 10th place. 130 institutions were evaluated.

DEGREES AWARDED IN 2020

252
engineering degrees
135
master’s degrees
54
PhDs

289
specialist programs: “mastère spécialisé” and Master of Science
103
École des Ponts Business School MBAs

CAREER OPPORTUNITIES

Banking/Insurance/Finance
13%
Telecoms/IT
19%

Industry
5%
Others
5%

Public sector
1%
Innovation/Research
5%

Energy
5%
Design/Consulting
10%

Transport/Environment/Urban Services
4%
Engineering consultancy (excl. construction)

AVERAGE STARTING SALARY:

€43.1 K
67 students studying engineering abroad
672 foreign students in 2020

€46.7 K
with bonuses and gratuities
67 on dual degree engineering courses

INTERNATIONAL RELATIONS

72 partner institutions
35 countries on 4 continents

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135 master’s degrees
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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, 80% of the cohort complete a year-long internship, with around 30% going abroad. The other students complete a short (3-month) internship in a company or laboratory, 20% of them abroad.

Year 3:
End of studies 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 a research laboratory. This Multidisciplinary Engineering Project may be carried out individually or in groups.

MASTER’S DEGREES

INTERNATIONAL MASTER’S:
→ Master Internacional en Empresa y Políticas Públicas (MIEPP) - in-house degree

MASTER’S DEGREE

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

Master’s in Energy awarded by the École des Ponts ParisTech
2 pathways:
→ Nuclear Decommissioning and Waste Management (DWM)
→ Energy Transition at Local Level (TET)

MASTER OF SCIENCE

Economic Decision and Cost Benefit Analysis (EDCBA)

INNOVATION AND DESIGN CENTER
(D. SCHOOL PARIS)

Four 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 the ecological transition;
→ train and help companies to understand the design-thinking world and culture through interactive, customized workshops.
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 in both their philosophy and their teaching methods:

- Executive Doctorate of Business Administration (Paris)
- DBA in Intelligent Manufacturing Management (Shanghai)
- LeadTech Global Executive MBA (Paris and Barcelona, joint French-Spanish degree)
- Global Executive MBA (Casablanca)
- FITF Executive MBA (Beijing, joint Franco-Chinese degree)
- Aviation and Aeronautics Executive MBA (Beijing, joint Franco-Chinese degree)

Ponts Formation Conseil is France’s leading continuing education center for engineering schools

<table>
<thead>
<tr>
<th>Over 350 training sessions offered in France</th>
<th>9 certificates (École des Ponts ParisTech degrees)</th>
<th>5 study days</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 bespoke training courses designed for companies and public authorities, in France and abroad</td>
<td>3,314 participants (engineers, managers)</td>
<td>1,410 trainers and coaches (experts and professionals)</td>
</tr>
<tr>
<td>52% private sector participants</td>
<td>48% public sector participants</td>
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</table>

IHEDATE (Institute of Advanced Development and Planning Studies in Europe)
IHEDATE’s annual training cycle is supported by the State (National Agency for Territorial Cohesion and different ministries), the Territorial Banks-Caisse des dépôts serving local government groupings (ADCF, France Urbaine, Régions de France, GART), the CEREMA, the City of Paris, private and public companies (Auchan-Ceeetrus, Colas, ENEDIS, EDF, Groupe La Poste, SNCF Réseau, Bouygues, RTE, SMABTP) and a number of professional bodies (ASFA, FNTP, Routes de France, UIMM).

ADVANCED MASTER’S PROGRAMS
(MASTÈRE SPÉCIALISÉ®)

FULL-TIME:
- Spatial Planning and Urban Development
- Urban Engineering and Information Technologies (UrbanTIC) with EIVP
- European Civil Engineering
- Engineering of Large Energy Structures with CentraleSupélec
- Public Policies and Actions for Sustainable Development with AgroParisTech

PART-TIME:
- Design by Data, Computational Design and Digital Technologies for Architecture and Construction
- Sustainable Real Estate and Building, Energy and Digital Transitions
- BIM, Integrated Design and Life Cycle of Buildings and Infrastructures with ESTP Paris
- Smart Cities Engineering and Management with EIVP
- Decision Support and Geo-located Information Systems with ENSG-Géomatique
- 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 541 PhD students, including:

- 178 Ph.D. students registered with École des Ponts ParisTech, including 44% overseas students and 29% women

Since the start of the 2020/2021 academic year, the School has again been awarding its own École Nationale des Ponts et Chaussées PhDs.

5 co-accredited Doctoral Schools (EDs):
- “Science, Engineering and Environment” Doctoral School (SIE). The CEREMA, HM&CO, LEEUS, LHSV and Navier laboratories are attached to this doctoral school
- “City, Transport and Territories” Doctoral School (VTI). The LEEUS, LATTIS, LVMT and CIRED laboratories are attached to this doctoral school.
- “Mathematics and ICT” Doctoral School (MSTIC). The CERMICS and LIGM laboratories are attached to this doctoral school.
- “Organizations, Markets and Institutions” Doctoral School (OMI). The LATTIS and CIRED laboratories are attached to this doctoral school.
- The Panthéon-Sorbonne Economics Doctoral School (ED 465). The PSE laboratory is attached to this doctoral school.

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4 CORNERSTONE DISCIPLINES

Mathematics and Computer Science
- CERMICS: applied mathematics, scientific computing, modeling, optimization
- LIGM: theoretical computer science, 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)

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

Economics, Practices and Society
- LATTS: social sciences, spatial planning, history, dialog between social sciences and technology and engineering, in private sector companies and the public sector
- LVMT: analysis and modeling of interactions between transportation and spatial planning
- PjSE: theoretical economics, public economics and labor market economy

4 SOCIO-ECONOMIC PRIORITIES IN THE ECOLOGICAL TRANSITION

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

THE LABORATORIES

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

THE INDUSTRIAL RESEARCH CHAIRS

CITY AND MOBILITY SYSTEMS
- Maintenance of civil engineering structures (NAVIER): with Sanéf-Abertis
- Sciences for rail transportation (NAVIER): with Getlink
- What regulations for the city of the future? (LVMT/LATTS): with RATP

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

INDUSTRY OF THE FUTURE
- Operational Research and Learning (CERMICS): with Air France
- Materials Science for Sustainable Construction (NAVIER): with Lafarge Holcim
- Sustainability of energy-related materials and structures (Mechanical Engineering and Materials Department): with EDF-OPN
- Supply Chain of the Future (CERMICS, Industrial Engineering Department): with Renault, Louis Vuitton, Casino and Michelin
- Sanéf-Abertis Industrial Chair (NAVIER)

ECONOMICS, PRACTICES AND SOCIETY
- Prospective modeling for sustainable development (CIRED): with EDF, Total, Schneider Electric, ADEME, GRTgaz, RTE and MINES ParisTech
- Development and financing of sustainable infrastructure projects (CIRED): with Meridian
- Territorial Mobilities (CIRED): with Île-de-France Mobilités
LIBRARY, SCIENTIFIC AND TECHNICAL INFORMATION DEPARTMENT (IST), HERITAGE AND ARCHIVES

LIBRARY

- 200 seats, 6 project spaces, 4 carrels, individual workspaces at La Source, the School’s Learning Center
- 9,300 registered users, 10,000 documents issued each year, 75,000 articles downloaded each year
- 185,000 documents available for bachelor’s year 3, master’s and research, covering the School’s teaching and research fields
- 15,000 e-journals, 80,000 e-books
- 20,500 written papers by students, including 3,000 digital documents
- 192,000 connections to the document portal bibliotheque.enpc.fr; over 1,000 searches processed via the virtual information desk
- Two 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, urban planning

TARGETED SERVICES FOR RESEARCHERS

- Scientific and technical information services portal: http://espacechercheurs.enpc.fr
- 74% of scientific publications are open access (2020)
- 31,000 scientific publications deposited on the HAL-ENPC open archive, including 41% full-text deposits
- Access to the main scientific journal platforms and scientific, technical, and economic databases (Web of Science, Scopus, Business Source Complete, Mathscinet, Science Direct, Springer, Wiley, ASCE, etc.)
- Opala bibliometric platform

AN EXCEPTIONAL HERITAGE COLLECTION

- A collection of 80,000 historical documents and manuscripts, printed between the 18th and 20th centuries
- Digitized heritage collections: patrimoine.enpc.fr, bibliothequesdesphares.fr, gallica.bnf.fr, archive.org
- 266,000 pages of digitized heritage documents viewed, 79,000 visitors
- A photo library containing 13,000 images (bridges, canals, railway stations, portraits of engineers, etc.)
- 16,800 archive folders corresponding to 1.7 km of historical and contemporary archives
- Museum collections recording the history of France’s first engineering school

STAFF AND RESOURCES

560 members of staff employed by the School and its subsidiaries on 31 December 2020 (excluding part-time non-tenured teaching staff and public employees in training)

€47.8 M of resources including a €27.3 M public service subsidy from MTES (French Ministry of Ecological and Solidarity Transition)
LES PRESSES DES PONTS
Les Presses des Ponts is the School’s own publishing house founded in 1977, which has a catalog of 220 scientific and technical publications and software products mainly covering civil engineering, construction and spatial planning.

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 in all the School’s sectors of activity. There are 27 geographical groups, 14 of them abroad, 16 professional groups, including 4 joint groups with other Grandes Écoles, 3-degree groups (MBA, Masters, UrbanPonts), 1 international sponsorship group, 7 “social” clubs and a number of “Millesimes” groups for friendly gatherings.

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 equality of opportunity, diversity, and excellence among its students.

In 2020, the Foundation supported, inter alia:
→ 8 teaching and research chairs
→ 4 prizes to encourage excellence, promote research and foster a spirit of entrepreneurship
→ 82 students on mobility programs (incoming and outgoing)
→ The renovation of the Cauchy amphitheater
→ Training and research (acquisition of optical tweezers for the Co-innovation Lab, study trips)
→ 122 students through the COVID support fund,
→ 3 loans on trust,
→ The “student refugee” program
For more information on all the Foundation’s actions see: fondationdesponts.fr

Resources in 2020:

<table>
<thead>
<tr>
<th>Individual donations or bequests:</th>
<th>Chairs or partnerships:</th>
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<tbody>
<tr>
<td>€0.308 M from 444 donors</td>
<td>€1.148 M from 13 companies</td>
</tr>
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</table>

Financial income: €0.153 M