Education

Structure
9 faculties
– 1st year
– languages
– humanities and social sciences
– civil and structural engineering
– city, environment, transport
– mechanical engineering and materials
– industrial engineering
– economics, management, finance
– applied mathematics and computer science

Teaching programmes
– 399 scientific and technical modules
– 200 language modules
– 54 International Management training modules under the Executive MBA and Full-Time MBA

Faculty staff
1237 part-time teachers, including:
– 158 teachers for the engineering course modules (excluding languages and sport)
– 130 teachers for the specialist course modules
– 80 professors of the École nationale des ponts et chaussées, 3 assistant professors and 84 lecturers

Student numbers
870 engineering students:
– 134 in 1st year
– 229 in 2nd year
– 60 in Integrated Further Training (FCI) including 22 students from the government Engineering, Water and Forest programmes (IEP)
– 169 on gap year (long course)
– 190 in 3rd year
– 88 students on placement from French and foreign higher education establishments, excluding double degree agreements
137 enrolled in Masters, 56 on the double degree programme
457 on PhD programmes, 312 enrolled with Paris-East University and 28 IPEF on 1 January 2012
175 on specialist Masters programmes including 36 IEP and 40 public service engineers (City of Paris Engineers, military engineers, Public Works Engineers, École normale supérieure, National Geographical Institute)
435 ENPC MBA Paris
18 in post-competition training as State Architects and Planners (AUE)

i.e. a total of: 2036 students, 1/4 of them female

Engineering internships and work placements:
1st year:
– work experience placement:
The course begins with a 4-week shopfloor work experience placement
– scientific internship:
Everyone in the year group spends 3 months (May-July) in public or private research centres, 57% abroad

Between 2nd and 3rd year:
– 80% of the year group attends a long internship (1 year), more than 30% of them abroad
– the other students have a short summer placement (2 months), more than 30% abroad

3rd year:
– End of Course Project (PFE):
For at least 4 months, students apply the skills acquired in their programme to a scientific or technical problem in a company or research centre

Qualifications awarded
– 264 engineering degrees
– 99 Masters degrees
– 65 doctorates awarded by Université Paris-Est
– 135 specialists Masters degrees
– 174 ENPC MBA Paris

Openings
2011 survey of 2010 year group graduates (excluding civil servants)

Average first salary:
Without bonus: €41,200
With bonus: €46,200
The AMBA-accredited ENPC MBA Paris offers 7 programmes:
- MBA in International Business
- MBA in Technology & Entrepreneurship
- MBA in Enterprise Risk Management
- Tri-Continent MBA (Paris, Philadelphia, Tokyo and Shanghai)
- Executive MBA (weekend format)
- Doctoral management programme for ParisTech (open to postgraduates from ParisTech and Paris-Est schools)
- Initial management training open to student engineers at ParisTech member schools, through two cycles: “International Management” (cIM) and “Technology and Entrepreneurship“ (cT&E)

Paris students can also take certain courses at international offshoots of the ENPC Paris MBA in China and Morocco.

École des Ponts ParisTech contributes to 4 ParisTech Masters programmes:
- ParisTech/Renault Foundation Masters - Transport and sustainable development with École Polytechnique and MINES ParisTech
- Masters in nuclear energy with University of Paris-Sud, ParisTech, École Centrale Paris, Supélec, INSTN and the support of several industries (EDF, Areva, GDF SUEZ)
- ParisTech Masters in Mobility and Electric Vehicles with Arts et Métiers ParisTech, MINES ParisTech and ENSTA ParisTech, in partnership with the Renault Foundation

Partnership: 2 professional Masters programmes:
- Environmental Services Management and Engineering with University of Cergy-Pontoise, UPEMLV, Veolia Environnement’s training campus
- Transport System Management and Operation with Casablanca EHTP, Escuela de Ingenieros de Caminos, Canales y Puertos de Barcelone and ENTEP

16 research Masters programmes:
- Materials and Structural Mechanics with UPEMLV
- Materials Sciences for Sustainable Construction with UPEMLV, École Polytechnique and Lafarge
- Mechanics of Soils, Rocks and Structures in their Environment with UPEMLV, UPMC, École Centrale Paris and École Polytechnique
- Materials of the Built Fabric in the Environment with UPEC and University Paris Diderot - Paris 7
- Applied Mathematics in Finance with UPEMLV, UPEC and the University of Évry-Val-d’Éssonne
- Business, Innovation, Society with UPEMLV
- Project Finance - Structured Finance with the University of Paris Ouest Nanterre La Défense
- Public Policy and Development with EHESS, ENS in partnership with AFD and IRD, J-PAL Europe and CEPREMAP
- Economics of Sustainable Development, the Environment and Energy with University of Paris Ouest Nanterre La Défense, AgroParisTech, EHESS, ENSPM, École Polytechnique, INSTN, MINES ParisTech
- Transport and Mobility with UPEC and UPEMLV
- Cities, Services, Uses with UPEMLV
- Ocean, Atmosphere, Climate and Spatial Observations with UPMC, ENS, École Polytechnique and ENSTA ParisTech
- Aquatic Systems and Water Management with University of Paris Diderot - Paris 7 and UPEC

11 jointly accredited specialist Masters:
- Public Action
- Public Policy for Sustainable Development with AgroParisTech
- Urban Planning and Development
- European Civil Engineering
- Engineering of Large Energy Structures with École Centrale Paris
- Engineering and Environmental Management with AgroParisTech and MINES ParisTech
- Electric Vehicle Engineering with Arts et Métiers ParisTech, ENSTA ParisTech, MINES ParisTech, in partnership with the Renault Foundation and with the support of EDF and automotive industry bodies
- Global Supply Chain Design and Optimisation with EPFL and AFT/IITIM
- Rail and Guided Transport Systems with ARF, Alstom Transport, Ansaldo STS France, Bombardier, FIF, RATP, RFF, Siemens Transport System, SNCF and SNCF International, the Lille and Paris Écoles Centrales, ENTEP, ENSIAME University of
Lifelong Learning

Ponts Formation Conseil
16 study days completed in 2011
137 special courses for public companies or government authorities, in France and abroad
2 international conferences
8000 participants (engineers and managers), including 200 from abroad
1800 speakers (experts and professionals)
52% of corporate internships in the competitive sector
48% of internships in government bodies

IHEDATE (Institute of Advanced Development and Planning Studies in Europe)
Annual IHEDATE training programme: programme provided jointly by ministries (MEDDTL, MAAPRAT, MIOCTI, DATAR), local authority organisations (ADF, ARF, Ville de Paris), trade bodies (ASFA, URF), public companies (CDC, La Poste, RTE) and private companies (Colas, Dexia). The training programmes are designed by Sciences Po, École des Ponts ParisTech and its Lifelong Learning section.

Public-Private Partnerships School
Annual IHEDATE course: programme offered jointly by ministries (MEDDTL, MAAPRAT, MIOCTI, DATAR), local authority organisations (ADF, ARF, Ville de Paris), trade bodies (ASFA, URF), public companies (CDC, EDF, La Poste, SNCF, RTE) and private companies (Colas, Auchan, Dexia). The training programmes are designed by Sciences Po, École des Ponts ParisTech and its Lifelong Learning section.

International Relations

56 partner universities in 32 countries on 4 continents
33 double engineering degree agreements with universities in 22 countries

Europe: 20 double degree agreements
Asia: 6 double degree agreements
America: 5 double degree agreements
Africa: 2 double degree agreements

40 partner institutions in 20 European countries within the ERASMUS programme

535 foreign students:
- 184 training for a double engineering degree
- 38 students on 6-month or 1-year exchanges
- 76 in Masters degree programmes
- 42 in MBA programmes (excluding foreign subsidiaries)
- 47 in specialist Masters programmes
- 148 in PhD programmes

61 students training as engineers (3rd year abroad)
Research

Research at École des Ponts ParisTech is organised into 11 laboratories, very often shared with other higher education institutions, research bodies and companies. It is driven by 375 permanent researchers, 85 of them in post at the School. In 2011, these researchers published several hundred articles in peer-reviewed international journals: 161 citations in the WoS (as of 2/1/2012) and around 350 A-ranked WoS citations. École des Ponts ParisTech’s research activities are essentially conducted within the framework of Paris-East University’s Research and Higher Education Cluster (PRES).

Paris-East University:

– CEREA (Atmospheric Environment Teaching and Research Centre), École des Ponts ParisTech - EDF R&D (*A)
– CERMICS (Mathematics and Scientific Calculus Teaching and Research Centre), École des Ponts ParisTech (*A+)
– CIRED (International Environment and Development Research Centre), École des Ponts ParisTech - EHESS - AgroParisTech - CIRAD - CNRS (UMR) (*A+)
– LATTs (Techniques, Territories and Societies Laboratory), UPEMLV - École des Ponts ParisTech - CNRS (UMR) (*A)
– LHSV (Saint-Venant Hydraulics), École des Ponts ParisTech - EDF R&D - CETMEF (*B)
– LIGM (Gaspard-Monge IT laboratory), UPEMLV - École des Ponts ParisTech - ESIEE - CNRS (UMR) (*A+)
– LVMT (City, Mobility, Transport Laboratory), UPEMLV - École des Ponts ParisTech - IFSTTAR (*A)
– Navier laboratory (Mechanics and Physics of Materials and Structures, Geotechnics), École des Ponts ParisTech - IFSTTAR - CNRS (UMR) (*A+)

PSL* (Paris Sciences et Lettres):

– PSE (Paris-Jourdan School of Economics), École des Ponts ParisTech - EHESS - ENS Paris - INRA - CNRS (UMR), as part of RTRA Paris School of Economics (*A+)
– LMD (dynamic meteorology laboratory), ENS Paris - UPMC - École Polytechnique - École des Ponts ParisTech - CNRS (UMR), (*A+)

(∗) AERES evaluations in wave C (2009), except for LEESU (wave B, 2008)

Chairs

Chair in “Materials Sciences for Sustainable Construction”
Company: Lafarge
Foundation: Fondation des Ponts
Duration: 5 years (2011 to 2016)

Chair in “Financial Risks”
Companies: La Fondation du Risque and its founder Société Générale
Academic partner of École des Ponts ParisTech: École Polytechnique
Foundation: Fondation du Risque
Duration: 5 years (2007 to 2012)

The Saint-Venant Chair in “Fluid Mechanics Applied to Hydraulics and the Environment”
Company: EDF
Foundation: Fondation des Ponts
Duration: 10 years (2008 to 2017)

Chair in “Durability of Energy Materials and Structures”
Companies: The European foundation for the energies of tomorrow and its founder EDF, GDF SUEZ, GRT Gaz
Academic partner of École des Ponts ParisTech: MINES ParisTech
Foundations: Fondation des Ponts and FI3M
Duration: 5 years (2008 to 2013)

Chair in “Eco-Design of Buildings and Infrastructures”
Company: Vinci
Duration: 5 years (2008 to 2013)

Chair in “Forward Modelling for Sustainable Development”
Companies: EDF, Total, Renault, Schneider Electric, ADEME
Academic partner of École des Ponts ParisTech: MINES ParisTech
Foundations: Fondation des Ponts and FI3M
Duration: 5 years (2008 to 2013)

Chair in “CO2 Capture, Transport and Storage”
Companies and municipalities: Air Liquide, EDF, GDF SUEZ, Lafarge, Le Havre municipality, Grand Port du Havre and Total
Academic partners of École des Ponts ParisTech: MINES ParisTech, Le Havre University and BRGM
Foundation: FI3M
Duration: 5 years (2009 to 2014)
Chair in “Socio-Economic Modelling of Public Urban Passenger Transport”
Company and local authority: STIF
Foundation: Un-sponsored
Duration: 10 years (2009 to 2019)

Chair in “Hydrology For a Resilient City”
Company: Veolia
Foundation: Fondation des Ponts
Duration: 10 years (2010 to 2020)

Chair in “Innovative Solutions for a Sustainable and Responsible Habitat”
Company: Saint-Gobain
Foundation: Fondation des Ponts
Duration: 5 years (2010 to 2015)

Chair in “Sustainable and Innovative Construction”
Company: Bouygues
Academic partners of École des Ponts ParisTech: École Centrale de Paris, Supélec, CSTB
Foundation: Fondation des Ponts
Duration: 5 years (2010 to 2015)

“City” Chair
Companies: AFD (French Development Agency), SUEZ ENVIRONNEMENT, GDF SUEZ
Foundation: Fondation des Ponts
Duration: 3 years (2011 to 2014)

Chair in “Transport Infrastructure Management”
Company: abertis
Academic partner of École des Ponts ParisTech: IFSTTAR
Foundation: Fondation des Ponts
Duration: 3 years (2011 to 2016)

Chair in “Reinventing stations in the 21st-century”
Company: SNCF Gares & Connexions
Foundation: Fondation des Ponts
Duration: 5 years (2012 to 2017)

The “d. thinking Paris” partnership
Companies: Thales, GDF SUEZ and Panasonic Europe
Foundation: Fondation des Ponts
Duration: annual
Design thinking programme devised by multidisciplinary and international student teams in partnership with Stanford and its network. The goal is to create the next generation of products or services for a company.

The Library

– A collection of 200,000 documents covering the School’s fields of education and research
– Recognised as an External Department of Bibliothèque nationale de France for the civil engineering and construction field
– Located at the heart of a documentary network made up of the 12 ParisTech School libraries and Paris-East University’s PRES documentary centres

Lesage Library: open to all
– 90,000 level L3 Masters and Research documents
– 100 seats on 2 floors, individual and group work areas
– Wi-Fi access, 10 self-service IT terminals with Internet connection
– 13,000 e-books, a Factiva press service (12,000 international press publications)
– A library of 9000 placement reports, student research papers and teaching materials
– 20,000 visitors and 10,000 loans
– Almost 50,000 website hits a year and the document department blog

On-site documentary services for researchers
– 10 libraries within the laboratories
– 40,000 research level documents, 350 hard copy periodical subscriptions
– 12 scientific, technical and economic databases (Web of Science, Mathscinet, Compendex, Techniques de l’Ingénieur, Kompass, ...)
– 18,000 e-periodicals
– 51,000 articles downloaded per year
– An open HAL archive containing almost 6000 scientific publications, 2/3 of them full text
http://hal-enpc.archives-ouvertes.fr/

An exceptional legacy
– A historical collection of 80,000 manuscripts and printed documents from the 18th to the 20th centuries
– A digital library of 11,000 scanned documents, including 4000 photographs and drawings, maps, plans, medals and the Annales des Ponts journal from 1831 to 1931
– A mission to preserve and propagate the history of the School: furniture, busts, portraits, medals and objects that bear witness to the history of France’s first engineering school
– More than 1000 metres of archive shelving dating back to the establishment of the School in 1747
Fondation des Ponts

This state-approved foundation collects contributions from companies, alumni and friends of the School. In so doing, it helps the School to play a major role in building tomorrow’s world.

Since 2006, 411 alumni from year groups 1934 to 2011 have made donations.

In 2013, 24 companies and organisations contributed to the development of the School’s research, educational programs and innovation:


The year 2011 was marked by the launch of the first fundraising campaign to raise €6 million in 3 years for 6 flagship projects:

- Bâtiment Descartes +: Scientific facilities
- Guest researchers/professors of international repute
- Brilliant “young guest researchers”
- The Industrial Engineering Department’s “Design Thinking” programme
- International exchange scholarship: Japan, Brazil, Russia
- School legacy: conservation and digitisation

A campaign committee of prestigious alumni, headed by Jean-François Roverato, has been created to take this initiative forward.

Use of Donations(*) in 2011 (Total: €622,000)

- 38%: Chairs
- 32%: Industrial Engineering: Design Thinking programme
- 15%: Maison des Ponts (Infrastructure)
- 14%: Scholarships, Grants
- 1%: Excellence Prizes

(*) net of management costs

Les Presses des Ponts

Established in 1977, Les Presses des Ponts publishing house has a catalogue of 220 scientific and technical works and software applications relating primarily to civil and structural engineering and planning. The new editorial policy aims to extend the scope of Les Presses des Ponts to all the fields of education and research covered by the School.


Ponts Alliance

Set up in 1860, Ponts Alliance – a founder member of ParisTech Alumni – encompasses the School’s 16,000 graduates: civil engineers, government engineers, holders of Masters degrees, PhDs or MBAs. The alumni network run by Ponts Alliance is present in 86 countries and in all the School’s areas of activity. It primarily consists of 16 geographical groups and 11 professional groups.

Created by Théodore de Goldschmidt in 1860, then granted state approval in 1885, Ponts Alliance celebrated its 150th anniversary in 2010.

Ponts Alliance has six essential roles:

- to unite and represent the community of graduates of the School,
- to defend the interests of its members and promote their image in their activities in France and abroad,
- to be a place for graduates to meet for the exchange of ideas,
- to provide assistance and advice for its members in their careers and on business creation and acquisition,
- to support the development and reputation of the School in France and abroad,
- to foster communication between students and all its members through teaching, guidance and professional integration.

The School in national and international rankings

QS World University Rankings: the School is the only French institution cited in the “Civil & Structural Engineering” discipline, where it is ranked in the 51-100 section out of a total of 200, a significant improvement on last year.

It is well placed in the “Mechanical, Aeronautical & Manufacturing” discipline, in the 101-150 section out of a total of 200.

Ranking by the journal l’Étudiant:

The School is ranked 4th of the best post preparatory institutions in the annual ranking of the top 200 French engineering schools.
Permanent staff as at 31.12.2011 (excluding teachers, researchers, postgraduates and civil service trainees) out of the School’s 442 full-time employees.

Breakdown by activity:

- Teaching: 79
- Research: 238 including 195 researchers
- Support: 125

Consolidated budget

Expenditure in 2011 (financial account)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount (€ million)</th>
</tr>
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<tbody>
<tr>
<td>Operations</td>
<td>40.615 (34.596)</td>
</tr>
<tr>
<td>Investment</td>
<td>3.804 (3.028)</td>
</tr>
</tbody>
</table>

Resources in 2011: to carry out these activities, the School mobilised resources of €42.400 million:

- MEDDE (Ministry of Ecology, Sustainable Development and Energy) public service subsidy (operational component): 25.910 million
- MEDDE (Ministry of Ecology, Sustainable Development and Energy) public service subsidy (investment component): 2.035 million
- Tuition fees: 3.572 million
- Apprenticeship tax levy: 1.026 million
- Research contracts: 6.088 million
- Other resources: 3.114 million
- Descartes+ building operation: 0.655 million

Revenues of School subsidiaries in 2011

<table>
<thead>
<tr>
<th>Subsidiary</th>
<th>Revenues (€ million)</th>
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</thead>
<tbody>
<tr>
<td>Ponts Formation Conseil:</td>
<td>9.500</td>
</tr>
<tr>
<td>MIB Développement:</td>
<td>1.912</td>
</tr>
</tbody>
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