

# MASTER ○○○

# TRANSPORT AND SUSTAINABLE DEVELOPMENT

ÉCOLE DES PONTS PARISTECH, MINES PARISTECH, ÉCOLE POLYTECHNIQUE

Transport systems represent one of the basic pillars for sustainable development in societies. They structure human geography, have an impact on the global or local environment, and are central to the development of economic and social systems. Regional planning, the segregation of urban space, the issues of safety and congestion, local atmospheric pollution, the greenhouse effect and a dramatic increase in transport demand all pose challenges for the engineers of the 21st century.

## ○ Entry requirements:

- A degree from an internationally-recognized higher education institution at least equivalent to French Master 1 level (in the fields of industrial, civil, mechanical or electrical engineering, economics, town planning, architecture, or related fields)
- Adequate proficiency in French (minimum TFI test score of 550)
- Aged under 35 on September 1<sup>st</sup> of the year of arrival in France
- The program is also open to young professionals graduating from foreign universities partnered with the Renault Foundation

## ○ Applications:

- Applications must be made via the Renault Foundation website and students will be informed when applications open. Candidates must attach:
- A resume
  - A cover letter detailing their interest in transport and sustainable development
  - Diplomas and letters of recommendation
  - Information regarding their career plans and the relevance of this master's degree to those career plans

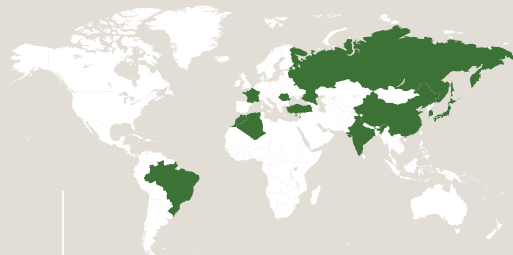
## ○ The selection process takes place in 2 stages:

- Review of candidates' application files by the institutions concerned and the Renault Foundation
- An interview in French to assess the quality and motivation of the candidate

CLIMATE CHANGE – DEMOGRAPHY – EMPLOYMENT – AIR POLLUTION – URBAN SPACE SHARING – PUBLIC DEBTS

## ○ Objective:

To train the world's future planning, vehicle design, transport system and transport service executives in sustainable development issues



**WHERE?**  
Paris,  
France

## FOR WHO?

Algeria, Brazil, China, South Korea, France, India, Japan, Lebanon, Morocco, Romania, Russia, Turkey



**ParisTech**  
INSTITUT DES SCIENCES ET TECHNOLOGIES  
PARIS INSTITUTE OF TECHNOLOGY

**Fondation RENAULT**  
D'ENTREPRISE



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### Advantages of the program:

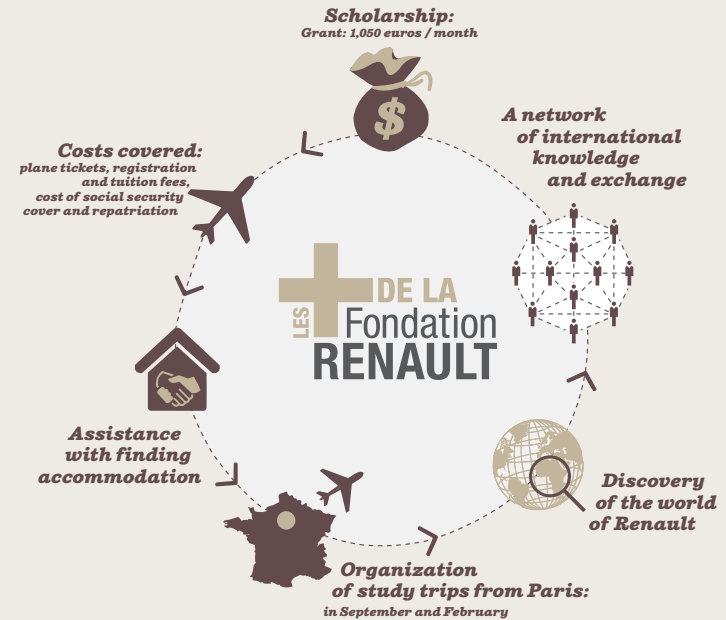
- Training that combines engineering, social sciences and management skills with a view to finding appropriate solutions to complex problems
- A highly international context that enables students to develop skills in intercultural management as well as contextualize the challenges and solutions generated by sustainable transport
- Strong links with the professional world through a six-month placement in a French company or institution
- Teaching with a strong basis in cutting-edge research in fields including sustainable development, energy, materials, environmental economics and sustainable management, among others
- Training provided by three of the best French engineering institutions and benefiting from a high level of quality assurance as well as individual progress monitoring for students
- Paris and France

### Skills acquired:

- This master's degree draws on varied skill sets (engineering, economics, planning) and will ensure students gain the tools necessary (including modeling, institutional analysis and management skills) to:
- Effectively understand and model the real determining factors in transport demand (freight and passenger)
  - Identify the scope of the various modes (or combinations of modes) of transport
  - Identify, structure and implement technological, organizational and behavioral solutions to provide credible operational responses to sustainable transport issues
  - Manage interculturality
  - Support private and public players in developing an innovative and relevant transport service

### Career prospects:

- This course opens up possibilities for careers abroad or in France within national or international companies or organizations, as well as careers with national, regional or municipal public authorities, in the following roles:



- Vehicle and sustainable transport service design engineer
- Infrastructure or transport service operator/administrator
- Transport network planner, developer, marketer or regulator
- Auditor or manager of sustainable development policy in a company or institution

### Validation:

- 90 ECTS credits across 3 consecutive full-time semesters

### Program language:

- 100% French language



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## ○ Curriculum

<b>Transport and Sustainable Development: the issues</b>	Climate change Transport externalities, energy outlook and "well-to-wheel" assessment Sustainable transport in developing countries Sustainable development Company governance and sustainable development	170h
<b>Analysis of travel and transport systems</b>	Analysis of travel and transport systems Challenges and definitions of sustainable means of transport Transport systems for goods Transport history Freight and goods transport Modelling transport demand	120h
<b>Sustainable transport engineering</b>	Engineering of environmentally-friendly vehicles Lifecycle analysis ICT and sustainable transport	120h
<b>Sustainable transport economics</b>	Environmental economics Transport economics Calculation of externalities	60h
<b>Management of sustainable transport</b>	Design and management of transport services Green supply chains, from business plan to business model Interpersonal and intercultural communication and management Negotiation	210h
<b>Languages</b>		
<b>Projects integrating «Sustainable development and transport»</b>	These projects take the form of a written report and oral presentation. They are open projects supported by meetings and visits. Examples of subjects: a circular economy, factor 4 in transport, sustainability of investment choices in urban transport	39h
<b>Internship in a company</b>	Presentation of the end-of-study thesis to a panel Graduation	5-6 months

## ○ Schedule

1

### Start of September in year Y:

- Renault Foundation and Renault orientation
- Introductory visit to Renault Foundation with fellow scholarship students

2

### Mid-September in year Y – end of June in year Y+1:

- Study period
- March: Weekend visit to Renault Foundation with fellow scholarship students

3

### July – mid-December in year Y+1:

- Internship

4

### December in year Y+1:

- Presentation of the end-of-study thesis to a panel
- Graduation



[www.fondation.renault.com](http://www.fondation.renault.com) / <http://master-tradd.enpc.fr> / [www.facebook.com/renaultfoundation](https://www.facebook.com/renaultfoundation)