

MASTÈRE
SPÉCIALISÉ®



CRITICAL MATERIALS

NAVIGATING RESOURCE SCARCITY FOR SUSTAINABLE VALUE CREATION



EXECUTIVE EDUCATION



ÉCOLE NATIONALE DES
PONTS
ET CHAUSSÉES



IP PARIS



CONFÉRENCE DES
GRANDES
ÉCOLES

APPLY ONLINE



ecoledesponts.fr

EXECUTIVE MASTER

Introducing an **Executive Master in Critical Materials** – a new program designed by the **École nationale des ponts et chaussées** to equip leaders with methodologies and tools to develop sustainable strategies. The availability of energy resources has been the subject of extensive scientific, technical, and academic research. However, the question of mineral and metal availability for the ecological transition is more recent. The **Mastère Spécialisé® - Executive Master "Critical Materials"** aims to broaden the scope to all potentially critical materials *such as ore, metals, minerals, processed materials, construction materials, etc.*



FORMAT

1 year
Part-time
75 ECTS



LANGUAGE

English

CALENDAR - OCTOBER TO JULY

COURSES

The program will cover key topics such as:

- Global Geopolitics
- Material flow analysis
- Finance and value creation
- Eco-design
- Technical and business model innovation
- Circular economy
- Recovery and recycling strategies
- Life cycle analysis

CAPSTONE PROJECTS

Students will undertake capstone projects in groups: **real use cases based on industry leading companies, providing valuable practical experience and ideas.**

PROFESSIONAL THESIS

To conclude the program, students will complete and defend a professional thesis.

WHAT WILL YOU LEARN?

Systemic analyses will incorporate **geopolitical considerations, industrial strategies, risk assessments, and long-term supply chain security across different value chain stages**. Additionally, the program will cover financial aspects, particularly decision-making in uncertain business and technical environments, as well as legal and regulatory frameworks. The multidisciplinary approach of this program will also address societal and territorial challenges at various scales.

PROFILES

Managers and experts in corporate strategy, industrial operations, innovation, environment, sustainability, procurement, supply chain, international business, finance, and CSR ; recent graduates in engineering, political science and business.

TUITION FEE

€15,000 if financed by Applicant

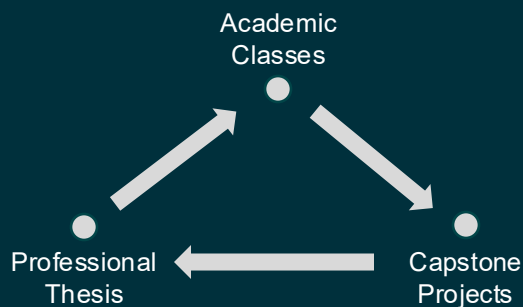
€17,000 if financed by a Non-Partner Company*

* Official program partners benefit from a preferential tuition rate €15,500

These prices are subject to change and exempt from VAT.

APPLY ONLINE → <https://ecoledesponts.fr/en/critical-materials>

YOUR PROGRAM



CRITICAL MATERIALS PROJECTS:

Our program's Capstone projects provides an invaluable opportunity for students to apply their knowledge of critical materials, innovation and supply chain optimization in a practical setting, working on real-world projects based on companies and organizations. With the guidance of experienced staff and professionals of industry leading companies, students gain hands-on experience and learn to navigate the realities of the industry. These projects are a unique opportunity to learn from experts in the field and gain valuable experience in the application of critical materials knowledge in their field.

CAMPUS LOCATION

École nationale des ponts et chaussées
Cité Descartes – Champs-sur-Marne
6-8 avenue Blaise Pascal
77455 Marne-la-Vallée

CONTACTS

Louis-François DURRET
Director of Executive Master Critical Materials
Mail: louis-francois.durret@enpc.fr

Selma ABBAS
Inspector of studies
Mail: selma.abbas@enpc.fr

PROGRAM PARTNERS



Ashurst

DEAMETER

