



ÉCOLE POLYTECHNIQUE
EXECUTIVE MASTER

Technology • Innovation • Leadership



MESSAGE FROM THE DIRECTORS

The Executive Master is designed to enable managers to advance and accelerate their careers without compromising their professional obligations. Through rich and varied modules in France and abroad, the program is a unique opportunity to develop a strategic vision of management and innovation in a context with a strong focus on science and technology.

Our aim is to provide you with the necessary management skills to influence and drive change to stay ahead in your projects.

Drawing on the world-renowned scientific expertise of the École Polytechnique laboratories and those of its partners, this program will allow you to understand the key trends and research challenges. It will also equip you with concrete experience as you apply this knowledge through a "Team Project" carried out throughout the course.



DOMINIQUE ROSSIN
Provost



CECILE CHAMARET
Academic Director Executive Master
Associate Professor at École Polytechnique

THE ÉCOLE POLYTECHNIQUE ECOSYSTEM

École Polytechnique combines research, teaching, and innovation in cutting-edge science and technology at the international level. Our ambition is to promote a culture of excellence driven by science and open to a longstanding humanist tradition. The school educate responsible men and women capable of carrying out complex and innovative activities to meet society's current and future challenges.

1st
France

Best engineering school in France for becoming the CEO of a CAC 40 company - *Le Figaro*

Best French universities for Science and Technology - *L'Étudiant*

2nd
World

World's best small size universities - *Times Higher Education 2020*

4th
World

Best institution providing the world's top CEO's - *Times Higher Education & Fortune Magazine*

6th
World

World's higher education establishments in terms of the number of Nobel Prize laureates among its graduates - *Nature*



A UNIQUE COMBINATION OF TECHNOLOGY AND BUSINESS

The "State of the Art" modules covering the principal fields of current and future technology and innovation are what sets our Executive Master apart from Executive MBAs. Taught by faculty from École Polytechnique and our partner universities, these modules will give you direct access to cutting-edge research in a range of fields such as artificial intelligence, data science, biomimetics, IoT, new energy resources, sustainable development, Industry 4.0, and biomedical engineering.

Capitalizing on the scientific expertise of École Polytechnique and its partner laboratories, the program will not only allow you to better understand the major research trends and challenges but will also enable you to apply this knowledge through the Team Project.



3 MAIN FOCUSES

TECHNOLOGY

- ▶ Data Science
- ▶ Artificial Intelligence (AI)
- ▶ Internet of Things (IoT)
- ▶ New Materials
- ▶ New Energies
- ▶ Biomedical Engineering
- ▶ Industry 4.0
- ▶ Sustainable Development
- ▶ ...

INNOVATION MANAGEMENT

- ▶ Creativity
- ▶ Design Thinking
- ▶ Innovation Marketing
- ▶ Project Management
- ▶ Global Innovation Strategy
- ▶ Financial Innovation
- ▶ Innovative Business Models
- ▶ ...

LEADERSHIP

- ▶ Entrepreneurship
- ▶ Coaching
- ▶ Change Management
- ▶ Crisis Management
- ▶ Intercultural Management
- ▶ Communication
- ▶ Negotiation
- ▶ ...



BOOST YOUR CAREER

The Executive Master is designed for experienced managers who want to understand and successfully manage technological and innovation-based projects, from concept definition to launch.

The innovation management and coaching courses are an opportunity to strengthen your entrepreneurial, change-management, negotiation, and complex-problem-solving skills.



11-12 MODULES

The modules are taught on a part-time basis (4 to 5 days per month - 50 days in total) to allow you to follow the course while respecting your professional commitments. They take place on the École Polytechnique campus as well as elsewhere in Paris, France and abroad.



TEAM PROJECT

Spread over the duration of the course, the Team Project allows you to apply the knowledge acquired through a concrete project centered around innovation and entrepreneurship and carried out in teams of 4 people.



INTERNATIONAL DIMENSION

The international dimension begins as soon as you arrive on campus with students, faculty and companies coming to us from all over the world. We work in partnership with leading universities in Asia, Europe and the United States to offer international modules.

PLANNING

MARCH 2024 INTAKE

MARCH 18 - 22 2024	MODULE 1
APRIL 23 - 26 2024	MODULE 2
MAY 21 - 24 2024	MODULE 3
JUNE 18 - 21 2024	MODULE 4
AUGUST 26 - 30 2024	MODULE 5
SEPTEMBER 30 - OCTOBER 4 2024	MODULE 6
OCTOBER 28 - NOVEMBER 1 2024	MODULE 7
NOVEMBER 25 - 29 2024	MODULE 8
JANUARY 6 - 10 2025	MODULE 9
FEBRUARY 10 - 14 2025	MODULE 10
APRIL 8 - 11 2025	MODULE 11
APRIL 11 2025	Team Project Defense

Applications are also open for the following session in September 2024. For more information, please contact the admissions team: +33 (0)1 69 33 30 80 - executive.master@polytechnique.fr

KEY POINTS OF THE PROGRAM

VARIED LESSON FORMAT

International modules & site visits: laboratories, startup incubators, etc.

INTERACTIVITY

Conferences, testimonies and debates with specialists



PRESTIGIOUS SPEAKERS

Courses and case studies taught by École Polytechnique faculty, international academic partners and company managers

COACHING

Personalized support throughout your cursus: personal and professional development



A POWERFUL NETWORK

Access to the École Polytechnique alumni network

TEAM PROJECT

Application of lessons through a project with a high level of innovation and/or entrepreneurship



THE TEAM PROJECT



Through the course, following the field of your own choice you will work in teams to apply the knowledge acquired during the program through a concrete project. It can take various forms: development of a new project for an existing company, opening up to a new market, setting up a company, etc.

The Team Project will allow you to achieve different objectives:

- ▶ Develop your ability to form and work within a group
- ▶ Apply the theoretical concepts addressed in the program to real-life situations
- ▶ Design, plan and carry out the project
- ▶ Step out of your comfort zone by working on issues different to those you face in your company
- ▶ Capitalize on the rich variety of profiles and backgrounds of the participants in your class
- ▶ Lay the foundations for and launch an innovative entrepreneurial project



« I joined École polytechnique because I felt the necessity to further develop my academic background. I think some of the topics covered are must-have: digital, industry 4.0 and A.I. The team project will be the occasion to apply these learnings and, why not, to launch a new start-up and become the next unicorn! »

Christophe, French, Managing Director, Woodtech France SAS

FRANCE



EUROPE



USA



ASIA



AN INTERNATIONAL EXPERIENCE

The international component of the Executive Master is one of the program's greatest assets. Your immersion begins as soon as you arrive on campus, at Palaiseau, which welcomes students, renowned researchers and entrepreneurs from all over the world.

The course modules will allow you to develop your skills in innovation and technology management in an international context and a range of economic and cultural environments.

Modules abroad allow you to meet experts from prestigious partner institutions all around the world. The destinations change regularly according to international advances in technology and to maintain a standard of excellence in education.

« As an audit professional, I have worked over the past few years for large companies such as Capgemini and the Asian Investment Bank. I chose the Executive Master because I want to set up my own business and it's the ideal opportunity for me to see things from an entrepreneur's perspective. »

Ying, Chinese, Head of Internal Audit, Asian Investment Bank



Some examples of modules with our international partners

Paris & Palaiseau

Campus of École polytechnique & partner institution

Munich, Germany

Technical University of Munich (TUM)

Berkeley, California

University of Berkeley

Singapore, Asia

SMU - Singapore Management University

A PRESTIGIOUS ACADEMIC TEAM

Beside our participants, the richness of the Executive Master is reflected in the quality of our teaching, mainly dispensed by internationally recognized faculty of École Polytechnique's laboratories and partner institutions.

The aim being to give our participants direct access to cutting-edge research, we have asked those at the core to teach directly. We will equip you with the key knowledge in order to benefit from a advances in technology and innovation and integrate them into your projects.



PROF. ADBUL BARAKAT
Biomedical Engineering

CNRS research director and professor of mechanics and biology at the École Polytechnique, head of the AXA Cardiovascular Cellular Engineering Chair.

Objectives: This module will permit participants to:

1. Develop an appreciation for the critical societal impact of biomedical engineering.
2. Learn about state-of-the-art topics in the field of biomedical engineering.
3. Learn about the bench-to-bedside process and the opportunities for contributions of individuals from broadly diverse backgrounds to this process.



PROF. CECILE CHAMARET
Marketing of Innovation

Polytechnique (PhD) and ENS (MA) Alumna, she taught for 5 years in Abu Dhabi and conducts research on consumer behavior in the Gulf countries. Currently researches and teaches in the fields of Marketing, Strategy and Organization Behaviour for Innovation.

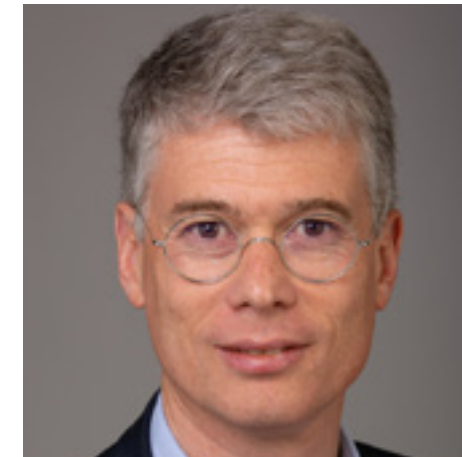
Objectives: The module will allow participants to develop their knowledge of consumer behavior throughout the innovation lifecycle and to develop their knowledge of the most recent behavioral marketing practices.



PROF. GERARD MOUROU
Physics

Nobel Prize laureate in Physics for the invention of chirped pulse amplification, high laser pulses, he is also the recipient of numerous awards, and emeritus Professor at the Ecole Polytechnique.

Objectives: Understand how innovation in laser technology is used in medical applications including corrective eye surgery, different physics research, environmental solutions and a potentially having a significant impact on cancer therapy.



PROF. PHILIPPE DROBINSKI
Energy4Climate

Director of the Dynamic Meteorology Laboratory. He is research director at the CNRS and professor at the Ecole polytechnique. His research focuses on regional climate variability and trends in the Euro-Mediterranean region with a particular interest in water and energy resources.

Objectives: Meeting the systemic challenge of climate mitigation and the energy transition.



PROF. ERIC MOULINES
Data Science

Professor of Statistics at the Applied Mathematics Center at École Polytechnique. Member of the French Academy of Sciences and laureate of Academy's "Grand Prix"; Editor-in-Chief Emeritus of a leading European journals - Bernoulli.

Objectives: Understand the exponential growth of digital data and its impact & computational challenges of dealing with large data masses. Provide an overview of machine learning, new trends in data sciences, unsupervised learning, reinforcement learning, etc.



PROF. KALINA RASKIN
Biomimetics

CEO of Ceebios (European Centre of excellence in biomimetics), physico-chemical engineer and Doctor in neuroscience from UPMC. Kalina is "nature-based solutions" expert at the European Commission and one of the international leaders on biomimicry.

Objectives: Analyze existing biomimetic approaches by answering three questions: How does it work in nature? What are the biomimetic achievements? What is the economic perspective?

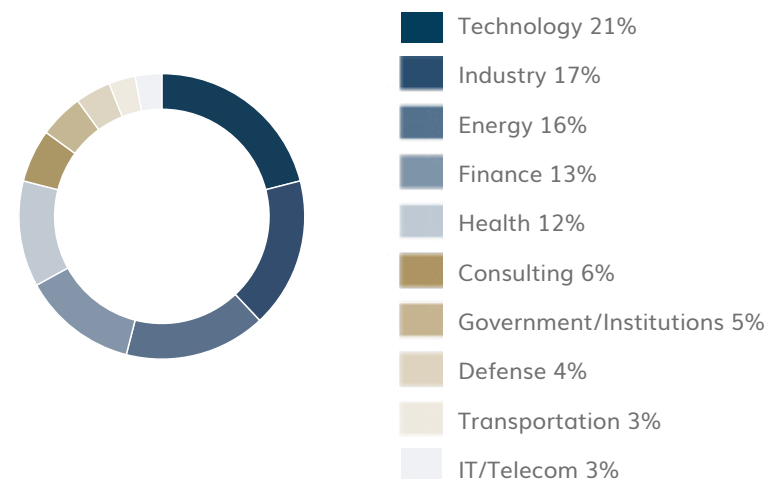
A RICH VARIETY OF PARTICIPANTS

Diversity is a key aspect of our Executive Master. Our participants have a range of backgrounds and include senior executives, engineers and scientists in charge of teams, managers of SMEs in technological sectors, researchers in the public or private sector, venture capitalists, doctors, military officers, representatives of states, institutions and international organizations, etc.

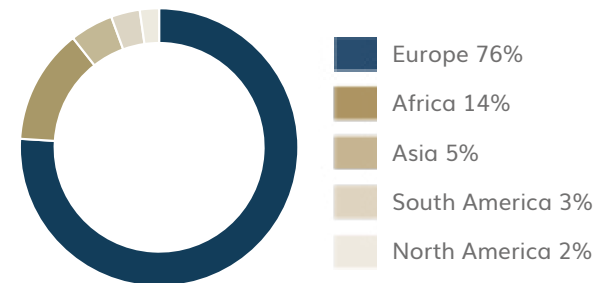
However, they all share a certain number of common points, as they all hold positions of responsibility, show a strong interest in new technologies and innovation and are at home in an international environment.



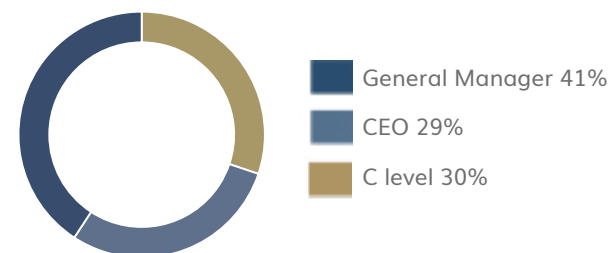
Activity



Nationalities



Actual occupation



2022 INTAKE



WHERE OUR PARTICIPANTS COME FROM



THE FRENCH SILICON VALLEY

Joining the Executive Master is also an immersive experience at the center of innovation and international research, at the **Institut Polytechnique de Paris**. The École Polytechnique campus is located within the Saclay research and business cluster. This scientific and economic hub, referred to as “French Silicon Valley”, is one of the eight most advanced innovation clusters in the world. **Our objective is to give you direct access to some of the most prestigious and cutting-edge laboratories and researchers in technology and innovation.**

The innovation park

The park hosts several companies and promotes interactions between public and private research, the employability of PhD students, and the development of an innovation and start-up ecosystem.

Drahi-X Novation Center

Located on the École Polytechnique campus, the Drahi-X Novation Center supports business creation, project leaders, entrepreneurs, partners, and students from École Polytechnique and elsewhere. The center is home to the X-Up incubator for early-stage technology start-ups, the X-Tech Booster for more mature start-ups and home to an excubator.



Institut Polytechnique
de Paris: A world research
and innovation cluster



A powerful network
with 30 000+ alumni

L'AX: DEVELOP YOUR NETWORK

After graduating, the participants of the Executive Master have a unique opportunity to join a powerful network of over 30,000 graduates across the world: **L'AX, the association of École Polytechnique alumni.**

An established network with multiple services and resources:

- ▶ **L'X directory:** stay connected thanks to an online directory and a lifetime personal "@polytechnique.org" email address.
- ▶ **Resources:** the Association offers valuable opportunities to constantly engage in lifelong learning with École Polytechnique.
- ▶ **AX Careers:** students, graduates, senior executives, and managers can prepare the next big steps in their careers thanks to the extensive HR tools offered by AX Careers.
- ▶ **Loans X-Mines:** numerous privileges for former engineering graduate school students, including advantages with certain financial services.

The Association also has a range of venues available for your events and professional and personal meetings:

- ▶ A professional space at AX, in Paris, on Rue Descartes in the 5th arrondissement
- ▶ On the École Polytechnique campus, AX offers our alumni venues equipped for videoconferences.
- ▶ In the heart of Paris, in the 7th arrondissement, the Maison des Polytechniciens offers preferential rates for all your special events in its restaurant or private venues.



HOW TO APPLY

1. INTERVIEW WITH ADMISSIONS TEAM

An interview with the admissions team is the first compulsory stage of the process.

2. APPLICATION FORM

If all the requirements are met, you will be able to access the online application portal and submit your written application.

3. FACE TO FACE JURY

If your application is accepted, you will be invited to an interview with a Jury. After this interview, your application will be presented to the Pedagogical Committee.

Tuition fees

March 2024 intake: €58,000* excluding taxes.

Tuition fees include all course materials, meals, events related to the program, and accommodation during international modules. Transport for off-campus modules. The accommodation for modules based in France are at the charge of the participant.

Tax credit

Many countries allow participants to include the cost of the Executive Master in their income tax return to receive a tax credit. We invite you to contact your tax office for more information.

Financial assistance

Three forms of financial assistance are available for this program:

- ▶ Women in Tech
- ▶ Start-up Founders in Tech
- ▶ Research Leaders

Loans

For people whose country of tax residency is France, a low-interest bank loan is available.

"Early Bird" reduction

A €3,000 "early bird" reduction is applied for completed applications submitted before October 15, 2023 (for March 2024 intake).

INFORMATION SESSIONS

Join us in one of our upcoming events:
polytechnique.edu/executive-master



For more information, please contact our admissions team: executive.master@polytechnique.fr



THE EXECUTIVE

At what moment of your life did you choose to join the Executive Master?

When I joined the Executive Master, I had 30 years of experience in the field of information technology in different countries, especially in Japan and Asia. I was at a point in my career where I wanted to understand the different impacts of new technologies in the company.

What do you think is the asset of the program?

In the Executive Master, we talk about medicine, agribusiness, new energies, aerospace, etc. All these subjects contribute to building a way for the population and civilization to evolve in the years to come.

"THIS EXECUTIVE MASTER GIVES US A REAL OPPORTUNITY TO GROW WITH A HOLISTIC VISION"

How does the program help to grow your mindset?

This Executive Master gives us a real opportunity to grow with a holistic vision. In the labs or with our colleagues, we can access the benefits of technologies for civilization. For me, another important point is the team project, when you basically have to develop an entrepreneurial program, and you really have to think about all the aspects of a business project: financial, marketing, management, etc. The team project can challenge you, and I believe that project helps change your mindset.

DAVID
MAURITIAN
CEO
Fujitsu Systems Europe

MASTER EXPERIENCE

Can you tell us about your professional background?

After 17 years in the industry, working in operations, but also purchasing departments and projects, where I was privileged to work in a variety of sectors, from aerospace, through chemical to medical, I decided in 2014 to become an entrepreneur. Since then, I have created a first consulting company specializing in purchasing, then another one. In 2020, I started to support several entrepreneurs. Since November 2020, the group of biotechnologies Eurofins Scientific entrusted me with creation of a start-up within the group: Eurofins safer@work France.

"THE EXECUTIVE MASTER BROUGHT ME KNOWLEDGE IN TECHNOLOGY AND SCIENCE I WASN'T AWARE OF"

How does the Executive Master impact this new stage of your professional life?

The Executive Master allows me to hone two essential skills that are necessary to my assignments at Eurofins safer @ work France: knowledge in technology and science in fields I wasn't aware of and which are directly applicable at safer@work (like AI, cryptography, data sciences in general), and an ability to manage very different topics, simultaneously, at high priority levels.

But the most important part for me is the help I can count on from the classmates and faculty: brainstorming, a multitude of experiences, frank talk and benevolence.



NATHALIE
FRENCH
President, Eurofins Safer@Work France
Founder - Associate ALBERT & CO



ÉCOLE POLYTECHNIQUE
EXECUTIVE MASTER
executive.master@polytechnique.fr
+33 (0)1 69 33 30 80
91120, Palaiseau, France