

GRENOBLE  
**INP** Pagora  
UGA

Graduate school of engineering  
in paper, print media and biomaterials  
**MASTERS-LEVEL AND GRADUATE ENGINEERING DEGREES**



**CHEMISTRY**



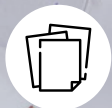
**PRINTED ELECTRONICS**



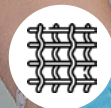
**PACKAGING**



**PROCESS ENGINEERING**



**PAPER**



**BIOBASED MATERIALS**



**SUSTAINABLE DEVELOPMENT AND ENVIRONMENT**



# 5 REASONS TO COME TO GRENOBLE INP-PAGORA, UGA

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# Graduate schools of engineering and management 8 schools in Grenoble and Valence

U n i v e r s i t é   G r e n o b l e   A l p e s

Materials, biobased materials and processes • Energy & environment • Geomaterials & civil engineering • Micro & nano technology • Digital technology & applications  
Industrial engineering • Management & organization

**8** graduate schools of engineering and management

- Grenoble IAE - INP, UGA
- Grenoble INP - Ense<sup>3</sup>, UGA
- Grenoble INP - Ensimag, UGA
- Grenoble INP - Esisar, UGA
- Grenoble INP - Génie industriel, UGA
- Grenoble INP - Pagora, UGA
- Grenoble INP - Phelma, UGA
- Polytech Grenoble - INP, UGA

**2** engineering preparatory courses

- La Prépa des INP (INP Group)
- PeiP (Polytech group)

**1** partner school

- SeaTech

**1** Professional Development Department

**INP** | Member of INP Group  
30+ graduate schools of engineering

**8,350** students

**73,000** graduates since the schools were founded

**38** laboratories

**21** technology platforms and fab labs

**465** partner companies, of which 120 are involved in the governance of Grenoble INP - UGA

**25** industrial chairs

**1** foundation  
Grenoble INP Foundation

**1** technology transfer subsidiary  
Grenoble INP Entreprise



E D U C A T I O N



R E S E A R C H



B U S I N E S S





**Grenoble INP – Pagora, UGA** is a state-funded graduate school of engineering specialising in the fields of fiber, biobased materials, paper and print media. It offers masters-level and apprenticeship-based engineering training. The school is focused on the various components of the circular economy and trains future professionals to meet the environmental challenges facing our society.

Located at the gateway to the French Alps, Grenoble INP - Pagora is a school of Grenoble INP, Institute of Engineering and Management, Grenoble Alpes University.

**200** students come from around France and more than 10 countries every year

**3** certified diplomas  
(1 graduate engineering course and 2 masters courses)

**95 %** of engineering graduates secure a job within 6 months of graduating

**240+** partner companies

Grenoble INP - Pagora is the only graduate school of engineering in France to be Quality, Safety and Environment certification.

ISO 9001 – ISO 45001 – ISO 14001



# 71%

**OF PAPER AND CARDBOARD  
IN EUROPE IS RECYCLED**



- 79%** becomes paper or cardboard packaging.
- 13%** is used for the production of newspapers, magazines, etc.
- 8%** is made into other products such as sanitary paper or insulating materials.

Source : CEPI, 2021

With a committed focus on sustainable development, the circular economy and plant-based chemistry, Grenoble INP - Pagora trains future professionals in sectors related to plant fibers, biobased materials (paper, composites, biopolymers), packaging, printing and recycling.

With their specialist skills and unique expertise, Grenoble INP - Pagora graduates contribute to the development of new materials, products and industrial processes with a reduced environmental impact.

Paper and cardboard are quintessential biomaterials produced either through their own recycling or from wood that cannot be used in other industries. Once processed and printed, they have a wide range of everyday applications, from packaging and sanitary paper, to banknotes and books.

Made primarily from natural components, paper and cardboard are becoming an alternative to petroleum-based plastics, thanks to new properties such as moisture, grease and air resistance.

# INNOVATIVE AND SUSTAINABLE SECTORS

## BIOBASED MATERIALS AND BIOPRODUCTS

Today, in addition to paper and cardboard, **recyclable and renewable plant fibers** are used to manufacture new products such as **biobased materials and chemical components of plant origin**, using cutting-edge industrial processes.



## SURFACE FUNCTIONALIZATION THROUGH PRINTING PROCESSES



Alongside conventional printing on paper, plastic, textile or composite substrates, the development of **advanced surface deposition processes and the formulation of complex fluids** (UV inks, conductive inks, transparent inks, etc.) today **allows various products and objects to be equipped with new properties and functionalities** (printed electronics, chemical reagents, RFID antennas, etc.).

Grenoble INP - Pagora and the LGP2 laboratory are "Quality, Safety and Environment" certified (ISO 9001, ISO 45001 and ISO 14001). The organization strives to increase the satisfaction of users and partners, as well as to control and reduce the risks and environmental impact of their activities. Grenoble INP - Pagora is the only graduate school of engineering in France to hold this triple certification. This certification is essential to the sustainable development of the school and the laboratory, in line with the school's areas of focus and its ambition to train socially responsible graduates.







GRENOBLE,

FRANCE'S  
5<sup>TH</sup> LARGEST  
STUDENT CITY

One of Grenoble INP's 8 graduate engineering and management schools, Grenoble INP - Pagora benefits from the infrastructure and research platforms of Grenoble Alpes University and Grenoble INP - UGA, as well as numerous local, national and international partnerships.

As part of one of France's most active research ecosystems, with over 8,300 students, 500 professors and 38 laboratories, Grenoble INP - UGA ranks among the world's top 100 universities in the field of engineering and technology.

EXCELLENCE  
INNOVATION  
RESEARCH

GRENOBLE INP - UGA:  
A WORLD-RENOWNED  
INSTITUTE

A TOP 100 UNIVERSITY IN THE WORLD IN 2023 FOR:

- ENGINEERING AND TECHNOLOGY
- NATURAL SCIENCES
- MATERIALS SCIENCES





# A SCHOOL LOCATED ON A TOP-RATED UNIVERSITY CAMPUS

Specializing in biobased materials, fiber-based materials, paper and print media, Grenoble INP - Pagora is the only school in Europe offering graduate engineering and master's courses covering the entire value chain, from the production of paper pulp to specific, high value-added printing processes on a wide range of substrates, as well as the valorization of plant biomass to produce biodegradable and recyclable materials.

**FRIENDLY CAMPUS**  
**RARE SKILLS**  
**UNIQUE COURSES**

## TECHNICAL SKILLS

MANUFACTURING PROCESSES FOR PAPER, CARDBOARD AND BIOBASED MATERIALS

PLANT BIOMASS CONVERSION PROCESSES (BIOPRODUCTS)

GRAPHIC CHAIN, PRINTING PROCESSES, INK AND COLOR MANAGEMENT

QUALITY, SAFETY AND ENVIRONMENTAL POLICIES

SUSTAINABLE MANAGEMENT OF ENERGY, RAW MATERIALS AND WATER

## SOCIAL / HUMAN SKILLS

TEAM AND PROJECT MANAGEMENT

ABILITY TO WORK IN AN INTERNATIONAL ENVIRONMENT

## MASTERS SUSTAINABLE PRINTED AND INTEGRATED ELECTRONICS

1-year training program for future professionals in the field of printed electronics (adding functionalities to objects using innovative printing processes).

## MASTERS BIOREFINERY AND BIOMATERIALS

1-year training course for future professionals focusing on the challenges involved in valorizing plant biomass (transformation into biomaterials, chemicals or energy sources).

## MASTERS DEGREE IN ENGINEERING PAPER SCIENCE, PRINT MEDIA AND BIOMATERIALS

3 years of scientific and technical training, leading to an engineering diploma, with a choice of 2 specializations: Fiber and Biomaterials Engineering or Print Media Engineering. This diploma, which can be taken as an initial degree or an apprenticeship-based degree, also enables students to develop skills in economics, business management and aspects of social responsibility and sustainable development.

# A RESEARCH UNIT AT THE HEART OF THE SCHOOL



The school has its own research center, the Laboratory of Process Engineering for Biorefinery, Biobased Materials and Functional Printing (LGP2), with nearly 60 French and international researchers and PhD students. The LGP2 laboratory conducts research into nanocellulose, the valorization of plant biomass, printing processes for surface functionalization and process optimization. Thanks to strong synergies between the school and the laboratory, the results of this research contribute to the quality of the training provided to engineering and masters students.

[lgp2.grenoble-inp.fr](http://lgp2.grenoble-inp.fr)

## 3 RESEARCH GROUPS WITH UNIQUE AREAS OF EXPERTISE

### Biorefinery: chemistry and ecoprocesses

- Cellulose, hemicelluloses and lignin: biorefinery and bioproducts
- Extraction and characterization of biomass constituents

### Multi-scale biobased materials

- Biomass-based compounds
- Development of polymers, composites and fibrous materials

### Surface functionalization through printing processes

- Complex fluids and inks
- Printing processes for functional systems

**2 TO 3 PATENTS  
PER YEAR**

**60 PUBLICATIONS  
PER YEAR**

**10 PHD THESES  
PER YEAR**

**2 RESEARCHERS  
AFFILIATED TO THE  
INSTITUT UNIVERSI-  
TAIRE DE FRANCE**



## CHAIR OF EXCELLENCE

Launched in 2022 by the Grenoble INP Foundation, supported by industrial partners and hosted by the LGP2 laboratory and Grenoble INP - Pagora, the Cellulose Valley Chair of Excellence aims to propose new solutions for high-performance cellulose-based packaging, better for the environment.

# COLLABORATIVE RESEARCH

## TRUSTEES



**agefpi**

## NETWORK MEMBER



European and French state-funded projects and  
numerous direct industrial partnerships



# STRONG TIES WITH COMPANIES

Founded in 1907 by a group of paper manufacturers, the school has always maintained strong ties with industry. Focusing on the challenges of innovation and sustainable development, it has specialized in the fields of print media, packaging and biobased materials, while developing partnerships with companies in all sectors. Today, students benefit from these strong synergies between training and industry, which allow them to enrich their skills through projects in France and abroad.

## INTERNSHIPS

### ENGINEERING PROGRAM

9 MONTHS MINIMUM OVER 3 YEARS

Internships allow students to learn about the challenges of working in a factory, to better understand an engineer's role and to manage large-scale projects.

### 1-YEAR MASTERS DEGREE

6-MONTH INTERNSHIP IN FRANCE OR ABROAD

Final-year internship in a company or laboratory to apply the knowledge acquired during the masters degree in a professional context.

## PROJECTS

### PAGORA STUDENT TEAM CHALLENGE

– ENGINEERING PROGRAM

Design and production of demonstrators/ prototypes of objects or structures using biomaterials, paper and cardboard.

### FINAL-YEAR PROJECT

– ENGINEERING AND MASTER PROGRAMS

Carried out under the supervision of a specialist lecturer-researcher, on a high-level technical, industrial or scientific subject, in a company or laboratory.



240 +  
PARTNER  
COMPANIES

## TESTIMONIES FROM INTERNS AND APPRENTICES ON OUR ENGINEERING AND MASTERS COURSES



**Justine | Engineering program  
EUROPAFI | Apprentice**

” I chose to follow the apprenticeship-based program at Grenoble INP - Pagora because it gave me the chance to put into practice the concepts I learned during classes. Also, if there are any concepts I don't understand, I can always work on them during my stints at the company.

*I think the main advantages of this apprenticeship-based program are the opportunity to work in real-life situations and to get acquainted with the industrial world. It helps me to mature, grow and be more resourceful both at work and at school.*

*As an apprentice, my mission was to characterize cotton fibres. It was up to me to define how I would carry out the project and the partners I would work with, which was very motivating.*”



**Peter | Masters program  
LGP2 | Intern**

” I chose to seek an internship at LGP2 after realizing how unique it is to have a whole laboratory dedicated to innovation in biobased materials and biorefinery, as well as considering LGP2's high degree of collaboration with industry partners and other research centers.

*My project aims to improve the surface, strength, and barrier functionality of 3D molded cellulose fiber objects, which will play a vital role in reducing plastic waste from packaging and single-use containers. Day-to-day, my work is a mix of hands-on experiments producing and characterizing molded fiber objects, analysis and organization of findings to shape the direction of future research, and collaborative meetings with other researchers in the lab. I really enjoy the discussions with fellow researchers that happen all the time at LGP2, whether planned or spontaneous.*

*Throughout this internship I've continued to learn about cellulose chemistry, molding processes, and analytical techniques. All these experiences will be valuable as I continue my career in biobased materials R&D.*”

# ALUMNI NETWORKS

## GRENOBLE INP ALUMNI

Grenoble INP Alumni is the graduate association of Grenoble INP - UGA schools. It offers a range of services to help graduates find employment and to maintain links between Grenoble INP graduates in France and around the world.

**1 DATABASE OF GRADUATES**  
**1 LIFETIME E-MAIL ADDRESS**  
**10,000+ JOB OFFERS**



**40,000 GRADUATES**

One of the world's largest networks of engineers

**REGIONAL AND  
INTERNATIONAL  
GROUPS**

## THE GRENOBLE INP - PAGORA ALUMNI ASSOCIATION: LA CELLULOSE



*La Cellulose*, the Grenoble INP - Pagora alumni association founded in 1909, is charged with maintaining and developing links between graduates, helping them find employment and supporting them in their professional careers.

**1 DATABASE OF  
GRADUATES**

[lacellulose.fr](http://lacellulose.fr)







## Grenoble INP - Pagora, UGA

461 rue de la papeterie - CS 10065  
38402 Saint-Martin-d'Hères Cedex  
France

[pagora.grenoble-inp.fr](http://pagora.grenoble-inp.fr)  
[pagora.contact@grenoble-inp.fr](mailto:pagora.contact@grenoble-inp.fr)



GRENOBLE INP - UGA  
ENGINEERING & MANAGEMENT

MEMBER OF THE INP GROUP

### TRAIN

High-speed train: direct from Paris (3 h, daily services)  
or Lyon (1 h 15, daily services)

### PLANE

Shuttle buses from Geneva, Grenoble and  
Lyon Saint-Exupéry airports

### PUBLIC TRANSPORT

Tramway B (direct from train station) / C,  
Bibliothèques Universitaires stop

Bus C7, Epicea stop

### BICYCLE

Slots in front of the school  
Mvélo+ offers short- and long-term bicycle rentals.  
Agencies at Grenoble train station and on Campus.

### BY CAR

Free parking in front of the school  
- 1 h from Lyon  
- 1 h 30 from Geneva  
- 2 h from Turin  
- 2 h 30 from Marseille