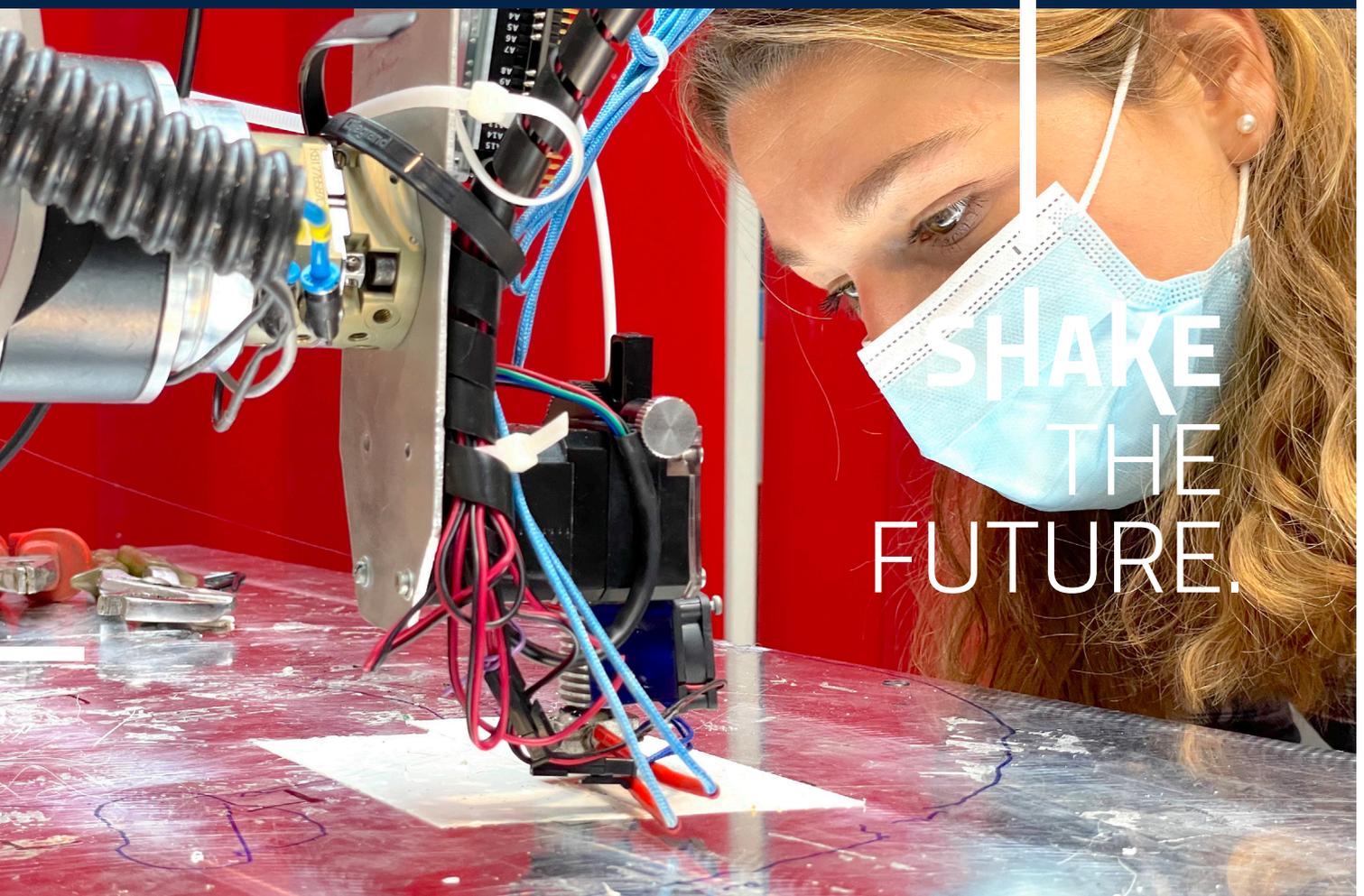


RESEARCH INTENSIVE INSTITUTE OF TECHNOLOGY

French Grande École

SINCE 1919



Centrale Nantes at a glance



A TOP-RANKING SCHOOL



CUTTING-EDGE RESEARCH



WORKING HAND-IN-HAND WITH INDUSTRY



RESOLUTELY INTERNATIONAL



LEARN FROM OUR LEADING FACULTY



LIVELY, GREEN CAMPUS



NANTES: A THRIVING ECONOMY



GLOBAL ALUMNI COMMUNITY



A WIDE RANGE OF PROGRAMMES

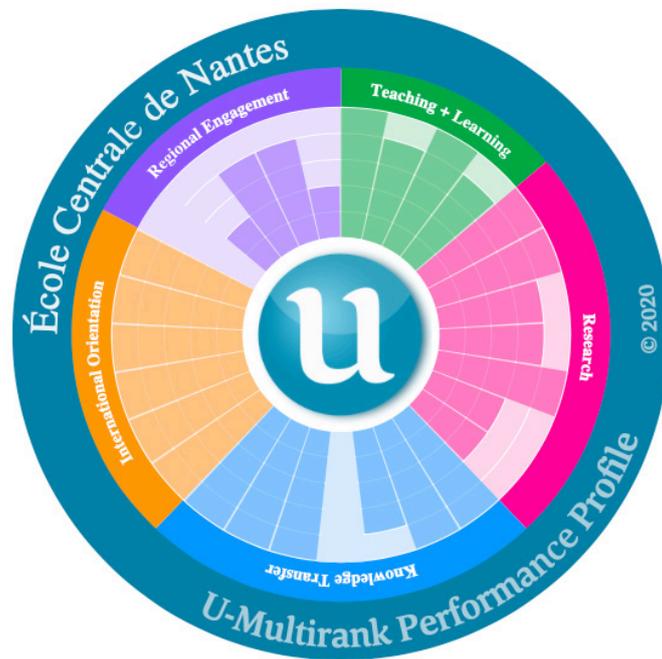


A WEALTH OF OPPORTUNITIES

2



For the fifth year in a row, Centrale Nantes stands out in the U-Multirank 2020 ranking for international orientation and ranks 4th in the list of the 25 world's best performing institutions for student mobility (Global Top performer in student mobility).



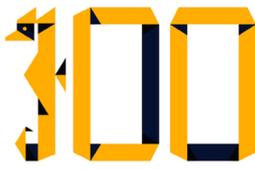
Centrale Nantes is in the top 250 of the world's best universities for Engineering & Technology (THE 2021). This ranking places the school in the top 70 in Europe, the top 10 in France and number one outside the French capital.



Centrale Nantes is ranked in the top 300 - and fifth France - of the world's best universities for social and economic impact in the second edition of the THE University Impact Rankings.

1919
2019

CENTRALE NANTES FÊTE SES 100 ANS



CENTRALE
NANTES



CENTRALE NANTES, a top-ranking school on the international stage

In keeping with the traditions of French Engineering schools (*grandes écoles d'ingénieurs*), Centrale Nantes, founded in 1919, trains versatile engineers to a very high scientific and technical level. Equipped with a strong managerial culture, they are capable of placing scientific subjects into a global context incorporating environmental and societal issues.

As a member of the Ecoles Centrales Group (Lille, Lyon, Marseille, Nantes and Paris), Centrale Nantes delivers a teaching programme of the highest quality to rigorously selected students. Over 2000 students are present on the Nantes campus.

Our extensive links with the world's top universities opens up international study opportunities. The school belongs to one of the most exclusive networks, which is ever expanding, particularly towards India, Japan, Brazil and Russia.

Beyond this renowned training, with the support of numerous strong institutional and industrial partnerships Centrale Nantes produces world-class academic and applied research. Research and education have always gone hand in hand at the school. The scientific courses fall within the research areas of the school's teaching staff and they conduct their research in the school laboratories. This osmosis between education and research will be valuable, beneficial and a guarantee of quality in your studies at Centrale Nantes.

Jean-Baptiste AVRILLIER
Director of Centrale Nantes

OUR VALUES



In a progressive environment, where the professions of tomorrow will rely on knowledge that does not exist today, Centrale Nantes strives to share with its students, teachers, researchers, staff, and all our partners three fundamental values...



OPENNESS...

... to social, physical or cultural differences, and thus encountering diverse aspects of the world we live in
... to new scientific and technical challenges which, whatever their forms, impart the desire to move forward in an uncertain universe.



ETHICS...

Beyond a necessary contribution to the creation of the wealth of a structure, engineers have the moral duty to act responsibly for the future of the planet and to provide meaning to their professional activity.



COURAGE...

... to speak out and make oneself heard,
... to initiate and undertake
... to be oneself

Cutting-edge research ...

... that's making a difference

260

PhD students



1

CNRS medal

550

teaching and
research
personnel

Six internationally-recognised research institutes feed into our training programmes and strengthen the school's links with the socio-economic fabric. Centrale Nantes faculty members, who are at the forefront of their respective fields, share their activities between research and teaching, which thus benefits from their expertise.

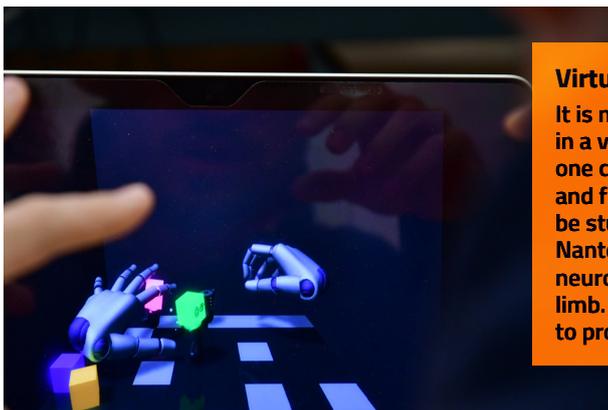
OUR 13 UNIQUE RESEARCH PLATFORMS

- > Ocean test facilities (unique in an academic setting in France)
- > SEM-REV offshore test site (for Marine Renewable Energies)
- > Dynamic and Static Test Centre
- > Engine and vehicle test benches
- > Supercomputer (6,000 and soon 10,000 cores)
- > Composites Platform
- > Rapid Manufacturing Platform (unique in Europe)
- > Robotics Platform
- > Structural Testing Floor
- > Smart Factory Platform
- > Virtual Reality
- > Wind Tunnels
- > Electric Vehicle Test Bench

The research institutes deploy an interdisciplinary approach to address three major challenges for growth and innovation: **factory of the future**, **energy transition**, and **engineering for health**.



It's part of our mission at Centrale Nantes to ensure that our research benefits industry and society at large. Some examples of research projects currently underway:

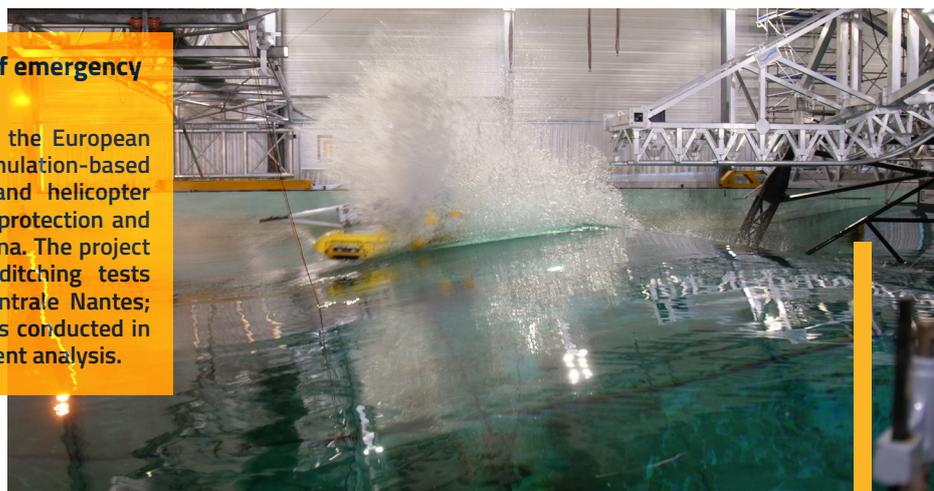


Virtual Reality & Augmented Reality

It is now (almost) possible to be realistically incarnated in a virtual body. The virtual incarnation means that one can be placed (virtually) into an unusual situation, and from there, potential impact on behaviour can be studied. Our researchers are working alongside Nantes University Hospital on patients suffering from neuropathic pain, especially related to the loss of a limb. The virtual incarnation of the limb is used in order to provide pain relief.

Improving aircraft safety in the event of emergency ditching

Centrale Nantes is one of the partners of the European project SARAH. It aims to establish new simulation-based approaches to the analysis of aircraft and helicopter ditching to enhance aircraft reliability and protection and better understand environmental phenomena. The project combines three investigation methods: ditching tests carried out in the ocean test tanks at Centrale Nantes; numerical simulation of ditching, which was conducted in partnership with our researchers; and accident analysis.





20,000
alumni

44
countries

500
events
per year

Working hand-in-hand with industry

CLOSE LINKS WITH INDUSTRY THROUGHOUT YOUR PROGRAMME

Centrale Nantes works hand-in-hand with industry to ensure a vocational approach to all its programmes. These close links come in various forms: company visits, internships, projects, participation of external speakers in courses, conferences, partner days, interview simulations, job or internship offers.

The training partnerships with companies favour frequent interaction between students and companies, which greatly contributes to the professional integration of graduates. The school also forges close links with companies and professional networks.

Our research institutes also collaborate with numerous companies to boost their research and accelerate their innovation. Students, through associations such as the Forum Atlantique, a recruitment fair involving 80 companies and over 2,000 students.

250

speakers from
industry

Over 4,000
industrial projects
per year

120

company
conferences &
site visits per year

Cost-effective aircraft repair with 3-D printing

Centrale Nantes is one of the partners in the European and Canadian AMOS (Additive Manufacturing Optimisation and Simulation) project, which is developing a number of additive materials and processes for the repair of aircraft parts. Our researchers are investigating the potential of additive manufacturing - specifically via direct energy deposition systems using a laser-powder machine - to repair and re-manufacture aircraft parts, such as turbine blades and landing gear.

BUSINESS INCUBATOR: A DEDICATED SPACE FOR START-UPS

The Centrale-Audencia-ensa business incubator brings together initiatives stemming from the alliance between Centrale, Audencia Business School, and ensa Nantes School of architecture. The three establishments have combined their entrepreneurial support services on offer to their researchers, students and graduates in order to boost the creation of innovative start-ups in the region. The incubator provides a support programme to develop key entrepreneurial skills and a dedicated work space, which boosts emulation amongst the entrepreneurs.

26
start-ups
incubated

+100
active
companies

15
new projects
incubated each
year

+500
jobs created

Industrial Research Chairs

Each year, the school sets up two to three major research programmes with renowned industrial companies to boost their research and accelerate innovation:

Naval Group, Bureau Veritas, RTE, EDYCEM, Faurecia, Renault / LMS to Siemens Business, Mann Hummel, ESI, EADS, etc.

178
academic
partners
in 48 countries

29%
secure their first
post abroad

World-Class Programmes

At Centrale Nantes, we train our students to become versatile engineers with strong scientific and technical know-how. Equipped with a strong managerial culture, they are capable of placing scientific subjects into a global context incorporating environmental and societal issues. In a spirit of innovative exploration, entrepreneurship and practical application, our programmes confront students with the major challenges of the 21st century, combining theory and "doing".

BBA BIG DATA AND MANAGEMENT

Four-year bachelor degree taught in English in conjunction with Audencia.



FOUNDATION MASTERS

One-year Foundation Master's programmes - in Civil & Environmental Engineering / Signal, Control & Robotics / Mechanics & Environment - to prepare students to meet the complex challenges of our Master's Programmes.



ENGINEERING PROGRAMME

Three-year general engineering programme leading to the "diplôme d'ingénieur" equivalent to a Master of Science and Engineering. This qualification is awarded to students after a total of five years of higher education.



DEGREE APPRENTICESHIPS

Degree apprenticeships, in partnership with the ITII Pays de la Loire, in Mechanical Engineering, in Construction, and Public Works, and in Communicating Embedded Systems.



MASTERS AND ERASMUS MUNDUS JOINT MASTER DEGREES

Six two-year fully accredited Master Degree programmes in Marine Technology, Mechanical Engineering, Civil Engineering, Automatic Control and Robotics, City and Urban Environment, Industrial Engineering – with 15 specialisms.

Four Erasmus Mundus Joint Master Degrees, a guarantee of academic excellence.

New for 2021: EIT Manufacturing Master School.



ADVANCED MASTERS (MASTÈRES SPÉCIALISÉS®)

Three Advanced Master Programmes

The Advanced Master label is awarded to specific programmes organized by a member school of the Conference of the Grandes Ecoles.



PHD

260 PhD students enrolled via two doctoral schools: SPI (Engineering Sciences) and MathSTIC (Mathematics and Information and Communication Sciences and Technologies).

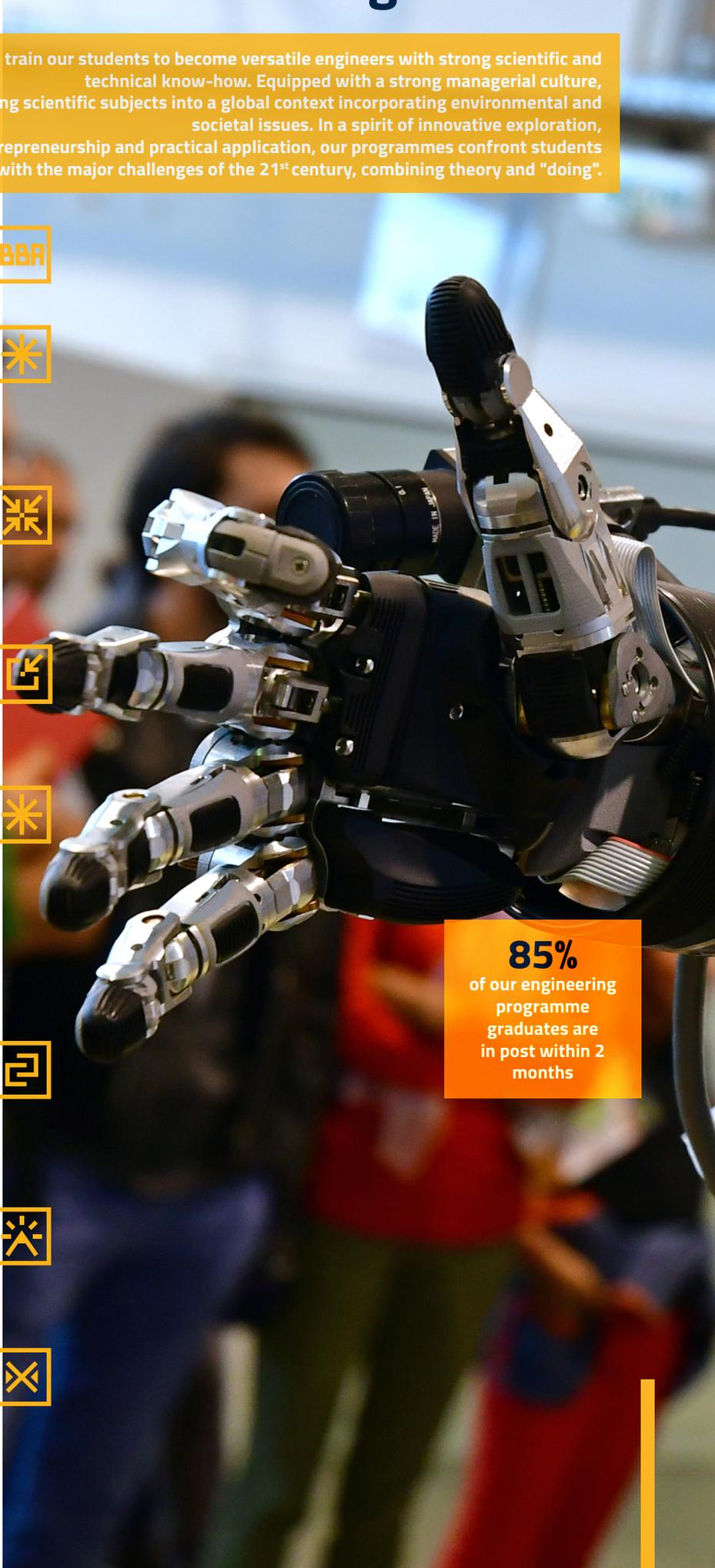


EXECUTIVE EDUCATION

Programmes for company engineers and executives and engineers, seeking to enhance their scientific and managerial expertise or change career.



85%
of our engineering
programme
graduates are
in post within 2
months



Experience life on campus



40

acres on the riverside

Passion, ambition, leadership development, comradery, integration, respect, well-being... sport plays a real role in all-round engineering training.

450

students take part in sports competitions each week



27
sports

Excellent sports facilities beside the banks of the River Erdre and in close proximity to Nantes city centre.



+80
clubs

Athletics ■ Archery ■ Badminton ■ Basketball ■ Blowgun shooting ■ Bodybuilding ■ Canoeing ■ Climbing ■ Cross-Country Running ■ Crossfit ■ Fencing ■ Football ■ French boxing ■ Hand Ball ■ Horse Riding ■ KravMaga ■ Mountain Biking ■ Rally Raid ■ Rowing ■ Rugby ■ Sailing ■ Tennis ■ Table Tennis ■ Ultimate ■ Volleyball ■ Water Polo ■ Windsurfing

Dynamic student life
– an activity to suit everyone's taste and the opportunity to mix and make friends.



43%
of international students

87
nationalities on campus

Integration Weekend | InterCentrales Sports Competition ■ Annual Gala ■ Culture Week ■ Ski Week ■ Cooking Club ■ Junior Enterprise ■ TEDx ■ Centrale Vert ■ Oenology ■ Together for Earth ■ Astronomy ■ Nantrobot ■ Centrale Nantes Saildrone ■ Do It Yourself ■ Cheerleaders ■ Salsa ■ Fanfrale Brass Band ■ Choir and Orchestra ■ Theatre ■ Circus ■ Cinema ■ Chess ■ Centrale GameClub ■ Centrale Image ■ ECNiouzes...



NANTES, ONE OF THE BEST PLACES TO LIVE IN FRANCE

Nantes, second most liveable city in France and first for employability. European Green Capital in 2013, Nantes was baptised "the loopyest city in France" by British newspaper "The Sunday Times" in reference to its cultural diversity and originality. The capital of the Pays de la Loire region regularly tops rankings: most workable city, most attractive city, etc. As for students, Nantes is ranked fifth in France for 2020-21. Almost 60,000 young people are enrolled in higher education institutions - nearly 10% of the population. Nantes is also well known for its highly advanced scientific and industrial environment (Airbus, EADS, STX, Beneteau).



HOW TO GET HERE

By plane to Nantes Atlantique airport.
By high-speed train – only two-hours from Paris

Nantes
fastest growing
digital sector
in France

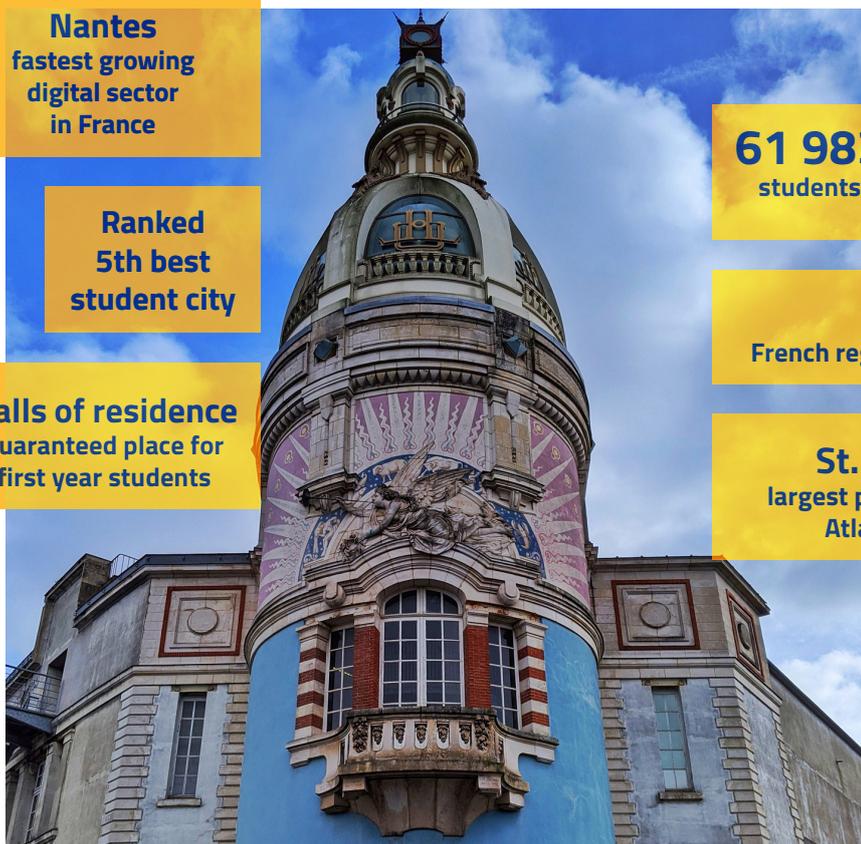
Ranked
5th best
student city

Halls of residence
guaranteed place for
first year students

61 983
students

1st
French region for shipbuilding

St. Nazaire
largest port on France's
Atlantic coast



CONTACT INFORMATION:

contact@ec-nantes.fr
École Centrale de Nantes
1 rue de la Noë - BP 92101
44321 Nantes cedex 3 - FRANCE
www.ec-nantes.fr