

The Journal of Higher Education, Research and Innovation



CONTENTS

INSIGHT

Innocent MUTABAZI and Thierry HEYNEN	
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FOCUS ON

Focus on training
Focus on research
Focus on open science
Focus on doctoral training
Focus on valorisation
Focus on student entrepreneurship
Focus on documentation and publishing
Focus on international development
Focus on sustainable development
Focus on campus life
Focus on culture

FOCUS
The University of Caen Normandy
Le Havre Normandy University
The University of Rouen Normandy
ENSICAEN
INSA Rouen Normandy
ENSA Normandy
CESI
ESIGELEC
UniLaSalle
ESADHaR
ésam Caen/Cherbourg
EM Normandie
Neoma Business School
Map of institutions

PROFILE

Pierre-Yves RENAR	RD	•••••	• • • • • •	• • • • • •		•••••	• • • •	••••	• • • •	• • • • •	• • • • •	• • • • •	••••	••••	• • • • •	• • • • •	• • • •	• • • • •	• • • •	••••	• • • •	• • • •		
Fabien PAQUET		• • • • • • •	• • • • •		• • • • • •	• • • • •		• • • • •	• • • •	• • • • •				••••	• • • • •	• • • •	• • • • •	• • • • •	• • • • •	••••	• • • •		• • • •	• • • • •

	> P. 8
	> P. 14
• • • • • • • • • • • • • • • • • • • •	> P. 16
	> P. 18
	> P. 20
	> P. 22
• • • • • • • • • • • • • • • • • • • •	> P. 24
	> P. 26
	> P. 28
	> P. 30
	> P. 32
	> P. 34
	> P. 38
•••••••••••••••••	> P. 40
	> P. 42
	> P. 44
	> P. 46
	> P. 48
	> P. 50
	> P. 52
• • • • • • • • • • • • • • • • • • • •	> P. 54
• • • • • • • • • • • • • • • • • • • •	> P. 56
• • • • • • • • • • • • • • • • • • • •	> P. 58
• • • • • • • • • • • • • • • • • • • •	> P. 60
	> P. 62
•••••••••••••••••••••••••••••••••••••••	> P. 64
•••••••••••••••••••••••••••••••••••••••	> P. 66
	> P. 70
	> P. 74

INSIGHT

INSIGHT NORMANDIE UNIVERSITÉ: GATHERING **TO MOVE FORWARD**

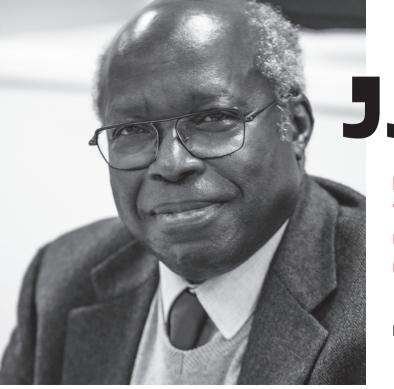
Normandie Sup' is the new journal of Higher Education, Research and Innovation in Normandy, coordinated by Normandie Université. Like it, it brings together the players in the region and reports on joint projects and opportunities. Interview with Innocent MUTABAZI, university professor, provisional administrator of Normandie Université and Thierry HEYNEN, Director General of ESADHaR, in charge of student life, culture and communication at Normandie Université.

WHAT IS NORMANDIE UNIVERSITÉ?

Innocent MUTABAZI (IM): Normandie Université was created in 2015 in the form of a Community of Universities and Institutions (ComUE), to coordinate the training and research offer of Normandy's institutions. With six founding members, including the three Norman Universities, two engineering and one architecture school, and twelve associate members, Normandie Université represents approximately 100,000 students, 1,800 doctoral students, 2,300 researchers and professor-researchers and more than 3,000 engineering, technical and administrative staff throughout Normandy. The objective, within two to three years, is to bring together all the public and private institutions of Norman higher education.

WHAT IS ITS ROLE? TH: Bringing together, gathering institutions and people closer together. Normandie Université creates opportunities for encounters that lead to new joint projects. It is an art school, ESADHaR, and Le Havre Normandy University which, by meeting, have the idea of creating in Normandy the first master's degree in literary creation to train authors. This is the Léocarte, a smart student card common to all the establishments, which enables students to benefit from the same services on different campuses.

The watchword of our development is the catalyst of energies. Normandie Université supports and promotes common projects throughout Normandy. Thierry HEYNEN (TH): I would add the term diversity. Between an art school, an engineering school and a university, there is a complementary training offer. The strength of higher education lies in its richness, which is also that of a region. It is the people who work there, the people who study there and who, tomorrow, will constitute the socio-economic forces of the territory.



RESEARCH PRODUCES KNOWLEDGE; TEACHING DISSEMINATES IT. **ONE CANNOT BE ACHIEVED WITHOUT THE** OTHER.

INNOCENT MUTABAZI



IM: There are now more than 20 master degrees that can be shared between institutions. Normandie Université offers the possibility of setting up joint projects and pooling resources.

The institutions cannot carry out these projects alone; Normandie Université is the structure that represents them. In 2019, we won the Ministry's call for projects on the New University Curricula, which are now being implemented in the three universities. It also has its own projects, such as the creation of a "Collège des Écoles Doctorales" (college of doctoral schools) which federates all doctoral training and delivers a unique doctoral diploma which offers a better visibility with the Normandie brand.

WHAT ABOUT RESEARCH?

IM: We have created five thematic training and research centres, responsible for coordinating responses to national calls for projects such as the CPER, organising the selection and submission of research projects to the Normandy Region, and then the allocation of grants (more than $\pounds 20$ million per year). We also coordinate the allocation of doctoral grants.

Research produces knowledge; teaching disseminates it. One cannot be achieved without the other. All industrial, technological and cultural advances are made by researchers and we will continue to move forward if we keep on searching. TH: But it takes many researchers working in teams to bring about innovation. A genius only emerges because there is a breeding ground that supports it.

WHAT ARE TOMORROW'S CHALLENGES?

IM: They are numerous: To have more projects successful in the future research programming law, to consolidate the transfer of research, but also to attract students and researchers from elsewhere. We need to attract an additional 3,500 master's students and international talents to work in our laboratories and develop even better projects. How do we do this? By improving the reception of foreign researchers, via our EURAXESS system, already in place in the three major Normandy conurbations, by being more present at trade fairs and in international rankings. As a result of our collective strategy, we have become one of the top universities in the world in the Times Higher Education.

TH: We need to communicate, to be more visible, which is also the objective of this magazine. To send our students and researchers abroad, to multiply international partnerships, to become "Normandy International" and make each of us the ambassadors for higher education and research in Normandy.



FOCUS / ON

FOCUS ON TRAINING

INNOVATIVE TOOLS FOR STUDENT SUCCESS

Through the institutions it federates, Normandie Université coordinates a pool of more than 100,000 students and is committed to strengthening their success.

The higher education and research establishments that are members and associates of Normandie Université provide a wide range of training courses in a variety of fields, a diversity of courses and a variety of teaching methods. In order to facilitate the success of students in initial or continuing education, in apprenticeship or by distance learning, Normandie Université plays a coordinating role in this offer. It encourages contacts between the players in the institutions, spread across the five Normandy departments and wishes to be involved in the promotion of their training offer. To succeed in this mission, it relies on two operational pedagogical engineers who are responsible for several major projects. One of them manages "Ma rentrée virtuelle" (my virtual school start), which will be operational at the beginning of 2021.

This initiative is being developed in partnership with the Normandy Academy. Through this digital portal, high school students, parents, secondary school teachers and students will be able to discover their living and study environment. They will have access to virtual campus tours, examples of pedagogical activities (courses, conferences, MOOC, etc.), presentations of the training offer, communication tools (forum, chat) between students and future students and/or between secondary and higher education teachers. In addition, a digital mapping of the regional training and research offer is also deployed, enabling students to find all the training courses on offer in Normandy via a dedicated portal (https://pofr. normandie-univ.fr).

A SUCCESSFUL ORIENTATION WITH MA RENTRÉE VIRTUELLE

The other pedagogical engineer class is invol in pedagogical innovation, accessibility train and digital devices (Web TV, learning lab...).

Normandie Université encourages student entrepreneurship via the "PEPITE Normandie" scheme, which supports those wishing to set up their own business.

By facilitating cooperation on a Normandy-wide



olved	scale, Normandie Université strengthens the at-
ining	tractiveness and visibility of the institutions in
	the region.

FOCUS ON RESEARCH

Normandy ranks 11th nationally in terms of scientific production and 9th in terms of technological production, notably through the filing of European patents. It counts in the national and international research landscape.

The regional ecosystem is favourable. There are around a hundred research laboratories, 50% of which are associated with national research organisation (CEA, CNRS, INRAE, INSERM, IRSN) or with which agreements have been established (INERIS, IFREMER). Academic research in the region represents 2,300 researchers and professor-researchers.

Normandie Université's ambition is to increase the visibility and attractiveness of the region by promoting the excellence of Normandy's research while strengthening the link with training. As everywhere in France, universities, schools and institutes, among others, share the field of research. As a shared and centralised support structure, Normandie Université facilitates the institutional management of higher education and research in the region.

It is now the cornerstone of the territorial strategy and the coordination of research activities through five Training and Research Clusters (PFR), eight Research Federations (FR) and the College of Doctoral Schools.

With its culture of consensus, Normandie Université assists Training and Research Centres in their submissions to Calls for Projects under the State-Region Project Contract, the Future Investment Programme or the Normandy Region's Calls for Expressions of Interest; each year, the latter fund doctoral students and very high-level research projects. Normandie Université aims to seize the opportunities offered by the new European S3 (Smart Specialization Strategy) programme in order to meet, thanks to the region's institutions and all scientific disciplines, the many challenges of tomorrow. All of Normandy's research is mobilised, from the exact sciences to the human and social sciences, without being opposed to the applied sciences.

ASSERT A NORMAN IDENTITY FOR RESEARCH

The constantly changing social, societal and environmental context calls for collective, coordinated and concerted action between all the member and associate institutions of Normandie Université.



FOCUS ON THE OPEN SCIENCE

FREE ACCESS TO SCIENCE FOR ALL

Open science is the international movement to move scientific work, often written with public funding, out of paid journals and databases. As soon as possible, their dissemination should be unhindered and at modest cost to researchers, students, businesses and citizens. The aim is to encourage open communication between researchers via the Internet.

Since 2016, Normandie Université has been involved in this movement and has been encouraging researchers from Norman universities and schools in its network to deposit their work (articles, publications, theses, various works, etc.) into the HAL national open archive portal via a Norman entry.

A full-time manager is in charge the HAL Normandie Université support unit and leads a network of portal representatives: 16 people distributed in member institutions plus a contact person in each laboratory. Already, nearly 21,000 documents are freely accessible. This unit offers training to researchers in the fields of scientific publication and open science.

DISSEMINATION OF KNOWLEDGE FOR AN OPEN AND CIVIC-MINDED SCIENCE

FOCUS ON DOCTORAL TRAINING

DOCTORAL STUDENTS IN NORMANDY

Doctoral training is provided throughout the Normandy in eight thematic doctoral schools (ED), each represented on the three sites: Caen, Le Havre, Rouen. Balanced between the fields of Health Sciences and Technologies (STS) and Human and Social Sciences (SHS), 1,800 doctoral students prepare their theses in Normandy, in one of the one hundred host research units. The universities of Caen Normandy and Rouen Normandy each host nearly 40% of them, while Le Havre Normandy, INSA Rouen Normandy and ENSICAEN each have just under 10% of the total number of students. Each year, around 400 doctoral degrees are awarded in a joint ceremony.

SUPPORT

Since the transfer in 2015 of the doctoral programme to Normandie Université, the doctoral training policy has been coordinated and run by the College of Doctoral Schools (CED), one of the internal structures of Normandie Université. This coordination is carried out in close collaboration with Normandy's institutions and/or those hosting doctoral students.

Joint arrangements for the reception and support of doctoral students have been set up, such as a range of thematic and cross-disciplinary training courses, individual monitoring committees and support for international mobility. Designed to facilitate and help prepare them for their career, the training programmes are accessible to all doctoral students, regardless of their profil of study (doctoral school, field of study, etc.). Among them are two seminars: Les Doctoriales (organised every two years) and "Créer et innover" (organised every year).



INTERNATIONAL

In partnership with their partner research units and institutions, the EDs and the CED are working to strengthen the international influence of doctoral training: on average, 40% of doctoral students registered in Normandy are foreign students. Created in 2020, the Graduate School of Research XL-Chem, specialising in Molecular Chemistry, and the two graduate schools: Min-Macs, specialising in mathematical computing and data science, and GS-MES, specialising in Materials and Energy, contribute to increasing the international influence of doctoral research and training in Normandy.



400 DOCTORAL DEGREES FROM NORMANDIE UNIVERSITE AWARDED EACH YEAR

FOCUS ON VALORISATION

Often referred to as technology transfer, valorisation is the transformation of research advances on-the-ground reality.

NORMANDIE UNIVERSITÉ,

A COMMON BANNER

Normandie Valorisation (NV) brings together under its banner, all institutions and organisations involved in the activities of Normandy's research laboratories. Its ambition is to place Higher Education, Research and Innovation (ESRI) institutions at the heart of the innovation ecosystem by bringing together the region's dynamic forces and optimising public funds.

With a multidisciplinary team and a fund of more than 6 M€, NV brings its expertise in technology scouting, intellectual property and licensing to promote the creation of a complete valorisation chain in Normandy.

BEAUTIFUL STORIES

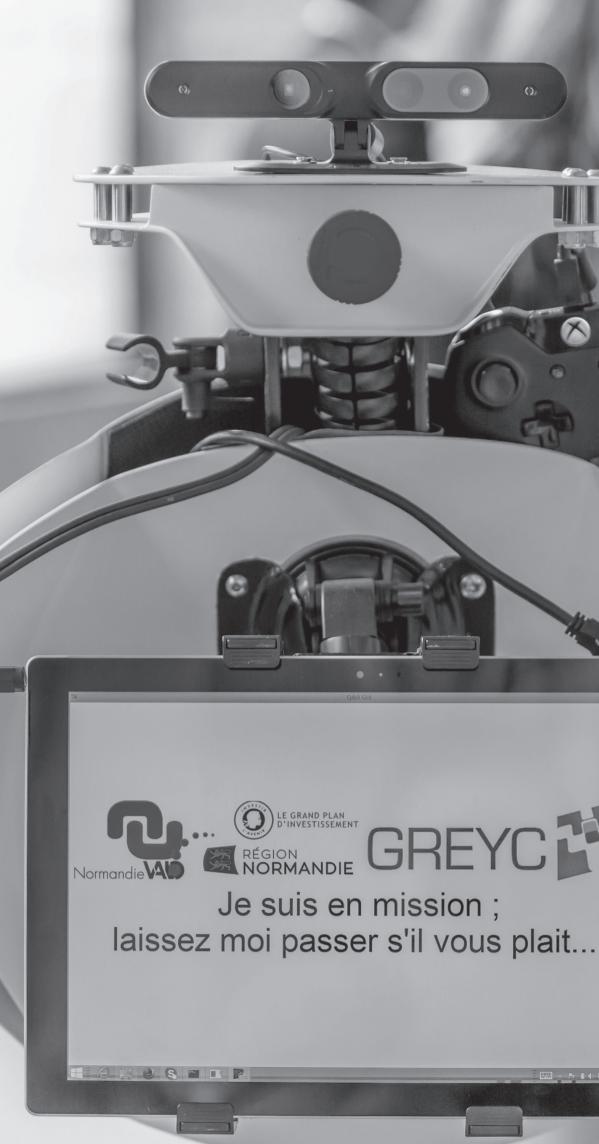
Born in the research laboratories of the ESRI establishments, innovations, with NV, move from the laboratory bench to the real world, becoming products useful to all, with a real impact on the territory.

BG2 concept, a start-up created in early 2020 in Cherbourg, uses a patented technology resulting from the work of the Laboratory of Applied Sciences (Lusac) of the University of Caen Normandy located in Cherbourg.

It is financially supported by NV. Two professor-researchers from the University of Caen Normandy and two professors from the Cherbourg Technical High School have developed a system for lifting medical beds. The prototype was produced by the students on the school's platform and validated by the "Centre Hospitalier du Cotentin" (hospital centre) within 15 months. NV, via Normandie Université, is one of the shareholders of BG2 concept.

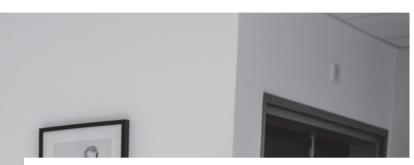
For more than a year, a kit for the rapid diagnosis of cancerous pathologies has been on the market. It is the result of work carried out by the UMR Inserm 1245, a research unit of the UFR of Medicine and Pharmacy of the University of Rouen Normandie. This kit makes it possible to obtain, in just a few hours, the same response as a long battery of tests typically requiring more than a week's work, and to identify rare forms of cancer that escape the usual tests, at a fraction of the cost.

USEFUL INNOVATION THAT CHANGES PEOPLE'S LIVES



FOCUS ON STUDENT ENTREPRENEURSHIP





DEVELOPING THE ENTREPRENEURIAL SPIRIT

Student entrepreneurship is a skill that enables the learner to carry out business creation projects and thus facilitates his or her integration into working life. Since 2014, the Ministry of Higher Education, Research and Innovation has been encouraging the spread of the entrepreneurial spirit. The concept can be summed up in a few words: "I am a student and I am learning to be an entrepreneur."

Two aspects are taken into account and developed by Normandie Université: on the one hand the projects monitored by the **PEPITE** network, where students learn by testing their idea; on the other hand the intrapreneurship projects, managed by the Disrupt Campus, where a group of students learn by working on a problem proposed by a company. In both cases, the regional network relies on a multidisciplinary approach to encourage young people to develop their spirit of initiative, federate and communicate around an idea, find funding or build their network... Out of nearly 100,000 students in Normandy, 1,000 are in entrepreneurship or intrapreneurship and 200 have the status of student entrepreneur. On 14th January 2021 a new stage was reached: the "PEPITE Normandie" brand was launched!

STUDENTS TAKE UP THE CHALLENGE OF ENTREPRENEURSHIP



La Koloc'. Caen

FOCUS ON DOCUMENTATION AND PUBLISHING

MÉDIA NORMANDIE

Located in Caen, this training centre, under the supervision of and integrated into Normandie Université, was created for librarians in higher education. It also offers training for municipal and departmental library staff from all over Normandy.

COOPERATION

Library managers meet several times a year to assess the benefits of doing things together. Normandie Université thus provides the framework for grouping purchases, such as electronic press access packages. Together, Norman University Libraries (BU) have twice been winners of the call for projects from the Ministry of Higher Education, Research and Innovation, Bibliothèques ouvertes +, which allocates credits for 4 years to extend opening hours and days. Today, university libraries in Normandy are among those with the longest opening hours.

SOON NORMAN UNIVERSITY PRESSES?

The aim of Normandie Université is to encourage closer links between the two publishing houses of Norman universities: Presses Universitaires de Caen (PUC) and Presses Universitaires de Rouen et du Havre (PURH).

NORMAN UNIVERSITY LIBRARIES, TWICE WINNERS OF THE OPEN LIBRARIES +



University Library. Le Havre Normandy University



FOCUS ON INTERNATIONAL DEVELOPMENT

A university with an international reputation is a university that knows how to combine its strengths and actions.

Normandie Université's mission is to take up the challenge of internationalisation and the attractiveness of the training and research offer of all its member and associate institutions. This involves three main areas: creating a common international identity, building and maintaining privileged partnerships and strengthening the success rate in all European and international calls for projects.

671 convention agreements, spread over 134 countries and bringing together 132 nationalities. The members of Normandie Université have each developed strong links with foreign institutions. The aim today is to increase and strengthen the international training offer at master and doctoral levels in order to attract students from non-French-speaking countries.

WORLD UNIVERSITY RANKINGS 2019

Normandie Université's entry into the Times Higher Education world top is the result of a collective strategy. This visibility in rankings, fairs and international conferences is a major challenge to attract the best researchers, juniors, post-doctoral and senior researchers. It also involves improving the conditions for hosting researchers in Normandy, with the opening of EURAXESS (European network for the mobility of researchers) service centres in Caen, Le Havre and Rouen.

NORMANDIE INTERNATIONAL

This shared structure between institutions, initiated by Normandie Université with the support of the Normandy Region, is becoming the international showcase for higher education and research in Normandy. Shared think tanks enable us to work together on attractiveness, the engineering of European research projects, international projects and the internationalisation of training courses.

INCREASING INTERNATIONALISATION OF TRAINING COURSES AT MASTER AND DOCTORAL LEVELS



Neoma Business School.

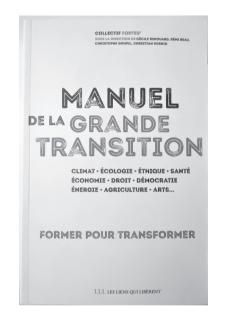
FOCUS ON SUSTAINABLE DEVELOPMENT

FACILITATE THE APPROPRIATION to resources⁷ in the SD section of the Normandie AND IMPLEMENTATION OF SUSTAIN-**ABLE DEVELOPMENT OBJECTIVES IN** THE NORMAN ESRI (HIGHER EDUCA-TION RESEARCH & INNOVATION).

For the past year, Normandie Université has been exchanging with universities and schools on past and future actions related to Sustainable Development (SD). The idea is that sharing experiences facilitates the implementation of more effective actions. Normandie Université informs universities and schools of major events in which they can participate¹, the creation of innovative collectives², the birth of essential networks³. Normandie Université financially supports the organisation of events to raise awareness on the consequences of human activities on climate change⁴ and SD training for SD student associations. Finally, Normandie Université provides awareness-raising tools⁵, books⁶ and shares links

Université website. In the medium term, the objective is to collectively develop ambitious SD projects for the Norman ESRI.

AWARENESS SUPPORTED BY CONCRETE SOLUTIONS





"La Fresque du climat" (climate fresco workshop).

 $1. \ We bin ar of the think tank, The Shift Project "Decarbonising mobility in Normandy", 15/12/2020$

- 2. "Labo lpoint5", a group of researchers aims to reduce the environmental impact of scientific research.
- 3. "Alumni for the Planet" helps young graduates to change practices in their companies and get feedback on the training missing from their curriculum.
- 4. Fresco of the climate, Conferences of Student Life
- 5. Serious SD Games

6. "Manuel de la grande transition" Les Liens qui Libèrent, 2020 : 70 teacher-researchers from various disciplines have developed a common base of knowledge

and skills to which all undergraduate students should have access.

7. IPCC Conferences, MOOCs of Climate Future, Carbon 4 Reports, ADEME Fact Sheets

RAISE STUDENTS' AWARENESS ON TOMORROW'S CLIMATE ISSUES

FOCUS ON CAMPUS LIFE

Studying, housing, living in the city. The student life services help young people on a daily basis to enable them to develop and succeed.

Being able to obtain a scholarship or housing, eating well, benefiting from cultural programmes or sports facilities, getting involved in community life, moving towards independence, all these are part of the quality of student life and help young people succeed and reduce the risk of dropping out, while at the same time making Normandy's educational programmes more attractive.

CONFERENCES ON STUDENT LIFE

The first ones, organised in 2016 by Normandie Université, enabled issues to emerge and to draw up, together with partners (Region, local authorities, State, Crous...) and the students themselves, a Master Plan for Student Life (SDVE) in Normandy, a real roadmap for the actions to be taken.

It has been enriched with the feedback from the second conference in 2018 and will be further developed with the creation of an online platform for participatory consultation in 2021.

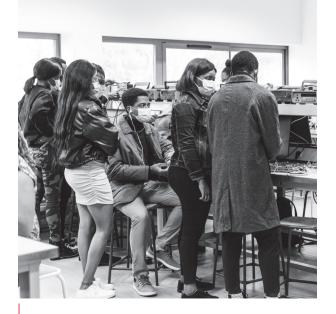
NORMANDIE UNIVERSITÉ **EN POCHE**

This mobile application is a package of digital services to facilitate transport, accommodation and administrative procedures. Its association with the "Ma rentrée virtuelle" portal (my virtual school start) will allow students to project themselves virtually on a campus.

STUDENT INITIATIVES

The Call for Student Initiative Projects (APIE) has already supported 72 associative projects in the fields of sport, solidarity, events, sustainable development, etc.

The students, who are more and more active, have



ESIGELEC.



ésam Caen/Cherboug.

created solidarity grocery shops to fight against precariousness.

SUSTAINABLE CAMPUSES

In the face of climate issues, this notion of campus is gaining ground. And it is this innovative approach to the concept of "student life", considered in all its aspects and adapted to the growing diversity of the student population and its needs, that is progressing.



AN INNOVATIVE APPROACH OF THE CONCEPT OF STUDENT LIFE TAKEN AS A WHOLE

ENSA Normandy.

FOCUS ON CULTURE

COORDINATE

Normandie Université promotes encounters between those working for culture in higher education institutions in Normandy. It is a coordinating body for sharing actions.

INITIATIVES

Normandie Université brings together several times a year the APIE commission, a call for student initiative projects, to finance all types of projects, including cultural projects. It is constructive for a student to be the initiator of a project. Normandie Université coordinates and puts on a Norman scale the initiatives of its member institutions: 72 projects have been supported since 2017.

UNIVERSITY TOURS

For the Tremplin Phénix Normandie (contemporary music) and Fous de la Rampe (live show) tours, bands and companies - with at least one Norman student - from each campus are put into competition. Since 2017, 12 groups and 3 companies have been supported to create a real tour each year in the halls of higher education and to foster links with the public, particularly with high school students.

BUILD UP BY INITIATING PROJECTS

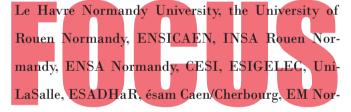


Tank. Laureate 2017 of Tremplin Phénix Normandie

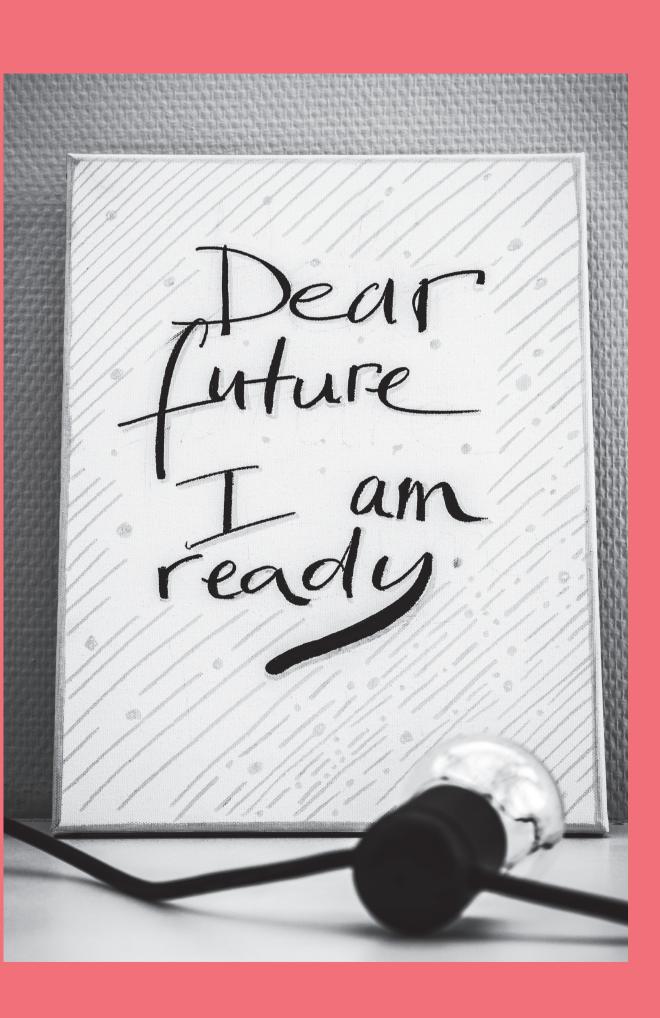


FOCUS

For this first issue of the Normandie Sup' magazine, the editors have chosen to draw up an overview of the institutions that make up Normandie Université, highlighting their specific features. It is a first introduction to the richness and diversity of the educational offer which is spread throughout Normandy. Thus, throughout the pages, the following institutions are represented: the University of Caen Normandy,



mandy Business School and NEOMA Business School will be present. These institutions do not represent all the higher education establishments in Normandy and ComUE Normandie Univesité hopes that other institutions will join the community. Other establishments are associated with Normandie Université but are not included in this section, they are the University Hospital Centre of Caen Normandy, the University Hospital Centre of Rouen Normandy, the François Baclesse Centre, the Crous Normandy (university student welfare centres) and the GIP Labéo.





FOCUS ON THE UNIVERSITY OF CAEN NORMANDY

With its canonical age (588 years old!) and its 32,513 students spread over 11 sites, the University of Caen Normandy places Caen on the 3^{rd} step of the podium of the most attractive student cities, behind Rennes and Nantes¹.

UNICAEN offers an unrivalled range of specialities, combining intellectual requirements with the need to train young people for the job market. The three-cycle system "LMD"² still constitutes the fundamental university base, in 4 major fields of study (arts-literature-languages / law-economy-management / human and social sciences / sciences-technology health).

In addition to the classic diplomas (Licence, Master, Doctorate, DUT in 2 years, BUT³ in 3 years, engineering diploma), there is also a wide range of university diplomas (DU) which interact permanently with the professional world, favouring the integration of young graduates. Thus, the Local Manager DU diploma, delivered by the IAE, combines initial and continuous education. While professionals and students are studying for a DU in Urban Planning Law, unique in France!

TRAINING STUDENTS AND MORE ...

STRIVING FOR EXCELLENCE AND WORKING IN RESEARCH

UNICAEN extends its influence by enrolling in cutting-edge research programmes. Its contributions, particularly in the field of virtual reality or equine research, are well beyond the region. It is the only university to have a virtual reality room dedicated to experimentation. And its work on osteoarthritis in horses represents the greatest interest for the whole sector.

As a university of the present time, it also raises burning themes such as the memory of the terrorist attacks (programme 13-November) or the SARS-CoV2 (Discover project).

Finally, it stands out internationally as the only French institution of the European consortium formed for the NUCPHYS master's degree in nuclear physics, adorned with the Erasmus Mundus label.

This intellectual emulation is stimulated by a well-integrated student life that flourishes in the heart of the city. On Campus 1, students benefit from the centre's amenities, as well as the site's facilities, such as the stadium, which is soon to be renovated.

Licence-Master-Doctorat (Bachelor-Master-Doctorate)
 Bachelor Universitaire de Technologie (University Bachelor of Technology)

4. IFSI · Institut de formation en soins infirmiers (Nursing training institute)
5. CPGE · Classes préparatoires aux grandes écoles (Preparatory classes for prestigious schools and universities)



^{1.} Source : Thotis média (July 2020)

FOCUS ON THE UNIVERSITY OF LE HAVRE NORMANDY

AN URBAN UNIVERSITY CONNECTED TO THE WORLD

The University of Le Havre Normandy is turned towards the world. Innovative, dynamic and attractive, it offers an ideal living environment and varied courses of study which are conducive to the success of its students.

A modern campus located on three university sites, The University of Le Havre Normandy is situated in the heart of an innovative city, close to the train and bus stations, and a stone's throw from the beach. In the image of the ocean city, Le Havre campus is currently undergoing a major transformation to offer a renewed living environment and innovative facilities in the near future. Since its creation in 1984, the university has placed the human development at the heart of its preoccupations and today welcomes nearly 8,000 students within its five components: three research training units (science and technology, international affairs and humanities), an IUT (university institute of technology) and an engineering school (ISEL).

Its multidisciplinary training favours the reception and success of all baccalaureate holders and ensures the success and professional integration of its students in initial and continuing education. The 120 national diplomas on offer, from the DUT (diploma awarded by university institutes of technology) to Bachelor's, Master's and Doctorate cycles, cover four areas of training: arts, literature, languages; law, economics, management; human and social sciences; sciences and technologies. Resulting from a partnership between local players and the University of Rouen Normandy, students have the opportunity to follow their first year of health studies in Le Havre.

As a key player in Normandy research, Le Havre Normandy University is also developing collaborations with players from the socio-economic world, such as the Smart Port City project selected in the 3rd PIA¹, which is based on the institution's research capacity.

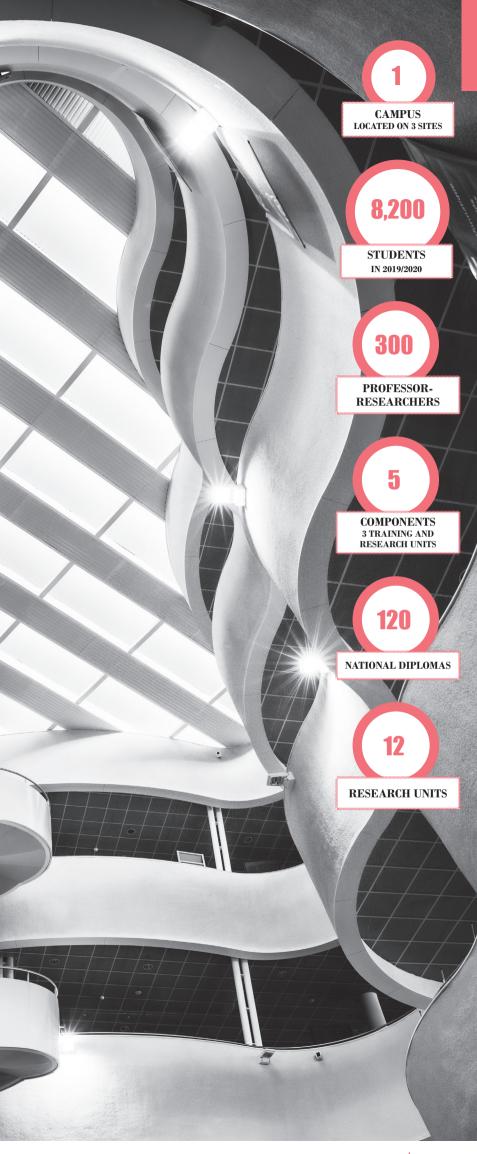
TEACHING BASED ON A STRONG SCIENTIFIC POTENTIAL

It is attractive beyond Normandy. Le Havre Normandy University is characterised by its spirit of international openness, it maintains strong partnerships with 161 higher education institutions throughout the world, welcomes 85 nationalities on its campus and offers the teaching of 12 languages. With new horizons, studying becomes easy!

1. Le Havre project is one of the 24 winners of the national call for projects The "Territories of Innovation" of the State Future Investment Programme



Pedro LAGES DOS SANTOS, President of the University of Le Havre Normandy





FOCUS ON THE UNIVERSITY OF ROUEN NORMANDY

Five centuries younger than its counterpart in Caen, the University of Rouen Normandy belongs to the clan of "new universities" which flourished in France in the 1960s. From its "perched" cradle at Mont-Saint-Aignan, it has seven thematic campuses.

Whether in initial (LMD¹) or continuing education, resolutely multidisciplinary, teaching is structured by major fields. While the Mont-Saint-Aignan historic site is multidisciplinary, the health training courses are close to the CHU in Martainville (University Hospital Centre). Also, in the centre, tertiary sciences are located in the Pasteur district, while science and engineering are based in the south, in Le Madrillet. The training offer is very flexible and adapts to the skills needs of the socio-economical world. Every year, new programmes emerge: e-tourism, territorial development, sustainable mobility systems, biotechnologies...

A SUSTAINABLE DEVELOPMENT AND SOCIAL RESPONSIBILITY LABEL

These seven interconnected campuses share their operations. At the heart of a metropolis where environmental issues guide political action, as shown by the Cop 21 of 2018, the University of Rouen Normandy has been awarded the label Environmentally friendly. DD&RS (sustainable development and societal responsibility) for the period 2021-2024. It is thus committed to ecological campuses. They are places of life that are always bubbling, favourable to exchanges, and benefit from sporting and cultural emulation, thanks to numerous integrated equipment.

STRONG IN RESEARCH, WELL CONNECTED TO THE WORLD

With a Graduate School of Research (XL-Chem), supported by the CNRS, laboratories for qualifying training courses, and a dedicated budget of 19 million euros, research is an essential lever of influence. The latest proof of this is the multidisciplinary group of experts set up to manage major industrial risks following the Lubrizol fire. But the University of Rouen Normandy is also active in international exchanges, maintained by some forty partnerships with foreign universities.

CAMPUSES IN SYNERGY, WITH THE SEINE RIVER AS A WITNESS

1. Bachelor-Master-Doctorate degrees



FOCUS ON ENSICAEN

LABORATORIES OF EXCELLENCE AT THE SERVICE OF EDUCATION

The National Engineering School of Caen prepares solid, high-performance executives through high-level technical and scientific teaching backed by the research activities of six laboratories.

At the heart of Normandy's scientific ecosystem ENSICAEN is located in the Science & Innovation Park EPOPEA, north of Caen, between the city centre, which can be quickly reached by tramway, and the sea. For the second consecutive year, ENSICAEN has been awarded the HappyAtSchool[®] label for student development.

ENSICAEN brings together 800 students and more than 700 staff, professor-researchers, researchers, technicians and PhD students. Multidisciplinary, the six research laboratories in joint supervision with the CNRS and the University of Caen Normandy, including one with the CEA, are among the jewels of French research in physics, materials, chemistry, information and communication sciences and technologies The strength of the courses lies in the interaction between students, professors, researchers and professionals at the heart of the development of innovation synergies. ENSICAEN thus provides teaching on the latest scientific advances, the needs of partner companies and societal expectations.

With more than 90 agreements and exchange programmes signed with universities around the world, ENSICAEN pursues an active international policy. Emerging engineers carry out ambitious programmes during the academic semester or obtain a double degree. They are highly sought after by recruiters before the end of their studies for professional opportunities in France and around the world.

A public institution of a scientific, cultural and professional nature (EPSCP), the school in Caen has a great deal of administrative, financial, pedagogical and scientific autonomy. This status confirms its position as a world reference for training and research, as well as its link with the socio-economic world. It reaffirms ENSICAEN's capacity to be a leading player in France and internationally.

AT THE FOREFRONT OF FRENCH RESEARCH



Jean-François HAMET, Director of ENSICAEN



FOCUS ON INSA ROUEN NORMANDY

A HUMANIST AND HIGH-LEVEL ENGINEERING SCHOOL

Specialised in applied sciences, sciences and techniques specific to the engineering profession, INSA Rouen Normandy places the human factor, diversity and openness at the heart of its educational choices.

"INSA is a school of excellence" explains its director Mourad BOUKHALFA. Accessible post-baccalaureate, on the basis of a dossier and "on merit", according to the classification in Parcoursup, the public school is approved by the Ministry of Higher Education, Research and Innovation. Preparation for the engineering profession takes 5 years, with student or apprentice status and continuous training; parallel admissions are also possible during the the school curriculum. The school is part of the INSA group. A strength, since it brings together 7 schools in France and one in Morocco, it is the leading trainer of engineers in France (10%) and a member of the European university ECIU¹.

Among INSA's assets are the close relationships it maintains with industry, both large groups and SMEs: Safran, Airbus, Ariane Group, PSA, EDF, Orano, Johnson & Johnson, Oril, etc.

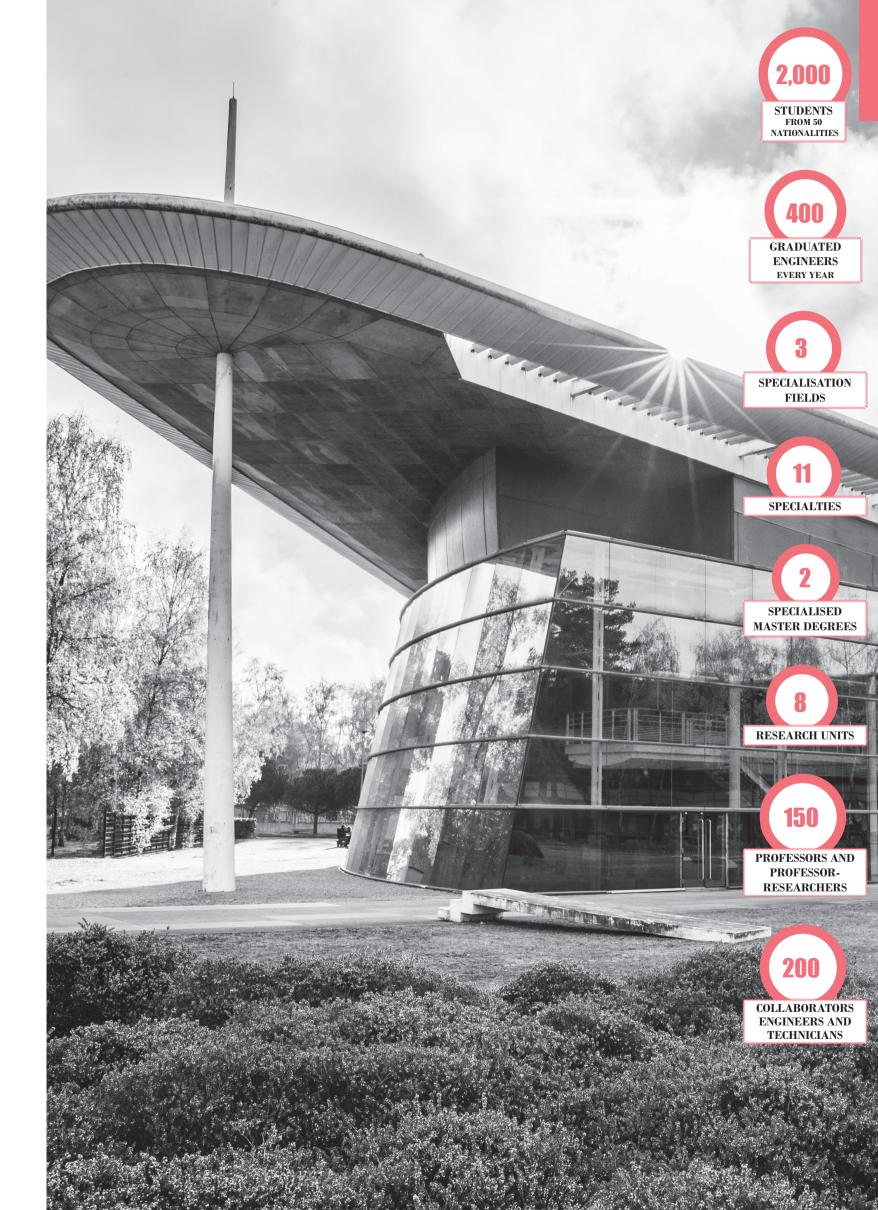
The guarantee of immediate employability of students upon graduation.

RESPONSIBLE ENGINEERS

But what particularly distinguishes INSA Rouen Normandy is the humanist values it defends: "We want to train responsible engineers, transformers of society, creators of innovation, in line with socio-economic developments, open to the world and to culture!" continues Mourad BOUKHALFA. Thus, all strata of society are represented among the students (30% of scholarship holders), parity and diversity are an integral part of its identity (40% girls) and the school welcomes a large number of international students. On a daily basis, the commitment of young people to associations is encouraged, the school takes care of their environment and the practice of sports, artistic or cultural activities. This is a sine qua non condition for the course. The best way, also, to encourage the autonomy of these young people is to make them leading actors of their studies and their projects. Here, we train the engineers of tomorrow, feeling good about themselves and in tune with the world!

A SCHOOL SOCIALLY OPEN TO EVERYONE AND TO THE WORLD

1. Member of the Consortium of Innovative European Universities





FOCUS ON ENSA NORMANDY

THE ART OF DESIGNING AND BUILD-ING IN NORMANDY

Installed in a former factory, ENSA Normandy is in touch with its territory, attentive to contemporary issues. It prepares architects for future changes.

Since 1984, students have been training in a former industrial factory rehabilitated by Patrice MOTTINI and Pierre DUFFLO, in the heart of a landscaped park. The school has 6,000 m² dedicated to the teaching of architecture. Enrolled students benefit from the attractiveness of Rouen (the city centre is 10 minutes away by bus) and the quality of life in Normandy, just an hour and a half from Paris.

ENSA Normandy offers a range of interdisciplinary courses in interaction with engineering sciences, spatial design, history, sociology, geography and the plastic arts.

The school's courses enable students to analyse contemporary changes, based in particular on the specific characteristics of its territory. It thus trains professionals who are responsive and able to grasp the new challenges of the diversification of the architecture professions. The requalification of brownfield, industrial and port sites is in the DNA of aspiring architects.

ENSA NORMANDY IMAGINES TOMORROW'S WORLD

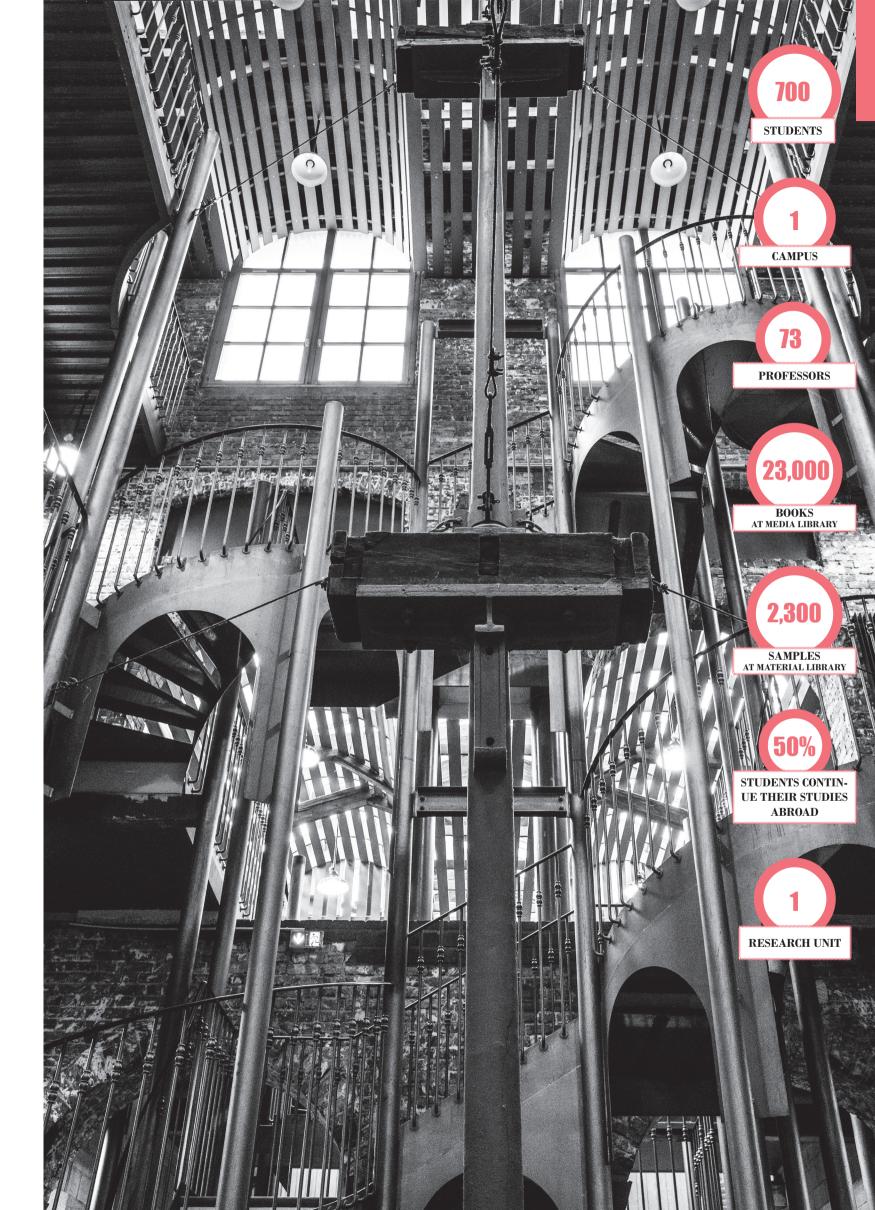
The school favours a transversal pedagogy in which teaching is based on the project, so that the students, in pairs, can respond to the constantly changing professional world they will be covering. At ENSA Normandy, a school on a human scale, students benefit from the solid support of their teaching team, which strengthens their capacity for imagination and sharpens their thinking. The development of research via the Architecture, Territory, Environment (ATE) research lab-

oratory enables a new approach to be built up in terms of technical and architectural innovation. Several educational exchange agreements with schools in Europe, Asia and Latin America also give it an international dimension.

For its future architects, the school imagines the world of tomorrow. To meet the contemporary challenges of sustainable development, ENSA Normandy also places the ecological transition and the rehabilitation of everyday architecture at the heart of its teaching methods. Well trained, these architects will build our future.



Raphaël LABRUNYE, Director of ENSA Normandy Architect, Doctor in history



FOCUS **ON CESI**

CESI, AN OPENING TO TOMORROW'S WORLD

As a higher education and professional training campus, CESI assists students and employees in their development, from Baccalaureate to Baccalaureate + 5. Its objective is to prepare them for the professions of tomorrow and to support companies in their changes.

CESI offers its training courses in schools: Engineering School, Graduate School of Management and Management Training School on 2 campuses in Normandy: Caen and Rouen. Thanks to an active pedagogy, CESI enables its students to take part in the transformation of companies and society. Working in projects and groups, the students are actors of their training and can thus give the best of themselves.

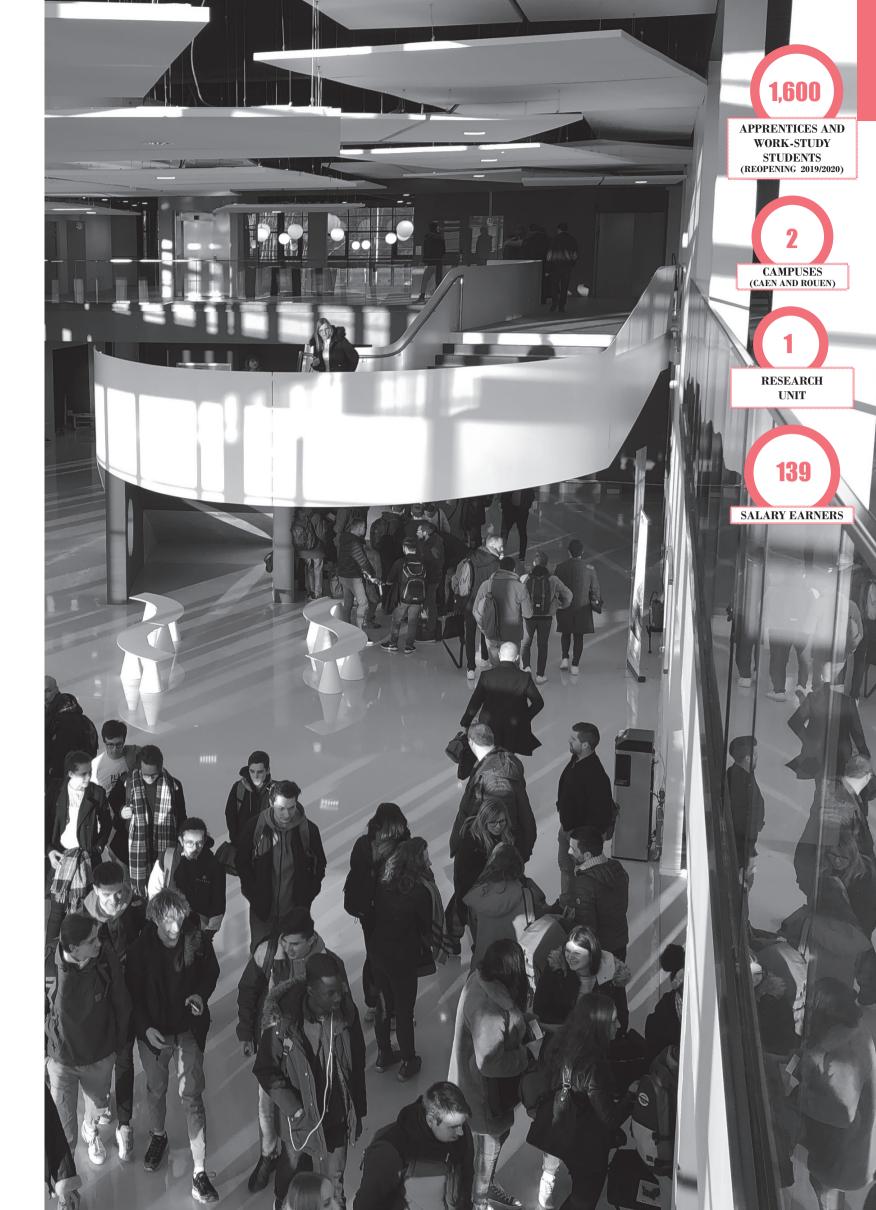
Thanks to its privileged links with the entrepreneurial, industrial and research fields, the school offers a high-level training as close as possible to the needs of companies. Thus, with the demonstrators "Industry of the Future" (Rouen) and "Digital Innovation" (Caen), CESI is innovating. The "Industry of the Future" demonstrator is a real tool for training, research and support for companies seeking to improve their performance. Called "La Source", it is the showcase of the campus. The "Digital Innovation" platform promotes

the development of digital uses.

This tool is part of a site-based logic and complementarity with the local offer with the aim of encouraging the development of digital uses. These demonstrators are open to CESI learners, local companies, partners in higher education and research and academic partners in secondary schools. As a digital innovation laboratory, LIN-EACT CESI anticipates and supports the technological changes in the sectors and services related to industry and construction. Thus, CESI plays a collective role in collaborative projects with its partners and the Campus of trades and qualifications of the local Board of Education. CESI also works in synergy and partnership with other higher education players, particularly in the context of training openings in line with the expectations of the region. CESI is involved in the Normandy International Campus of Excellence in Energy (CEINE), which is in constant evolution and should be created in 2022. CESI encourages the dissemination of scientific culture to the youngest members of the community, through the "Cordées de la réussite" scheme (successful teams) and its partnerships with secondary and high schools in the Academy.

PRIVILEGED LINKS WITH THE LOCAL INDUSTRIAL BASE





FOCUS ON ESIGELEC

A GENERAL ENGINEERING SCHOOL

This engineering school trains 450 engineers, in 5 years, in Intelligent and Connected Systems. With a common core of three and a half years, each student can mature his or her professional project, notably with internships and meetings in companies. Afterwards, the students choose one of the fifteen majors that they will follow for a year and a half, with the possibility of doing them with the sandwich course scheme. 120 students can benefit from the apprenticeship scheme from the third year onwards; 30 more from the fourth year onwards and professionalisation contracts are possible in the final year.

INTERNATIONAL

All students must spend at least one semester abroad to obtain their degree. ESIGELEC has established 95 partnerships and 22 dual degrees are offered in Canada, the United States, China, the United Kingdom, Ireland, Finland and Germany. In addition, students benefit from an international environment on a daily basis, with 35% of our students coming from Africa, China, India and Europe and 50 visiting professors from prestigious universities.

IN CONNECTION WITH THE MAJOR SECTORS

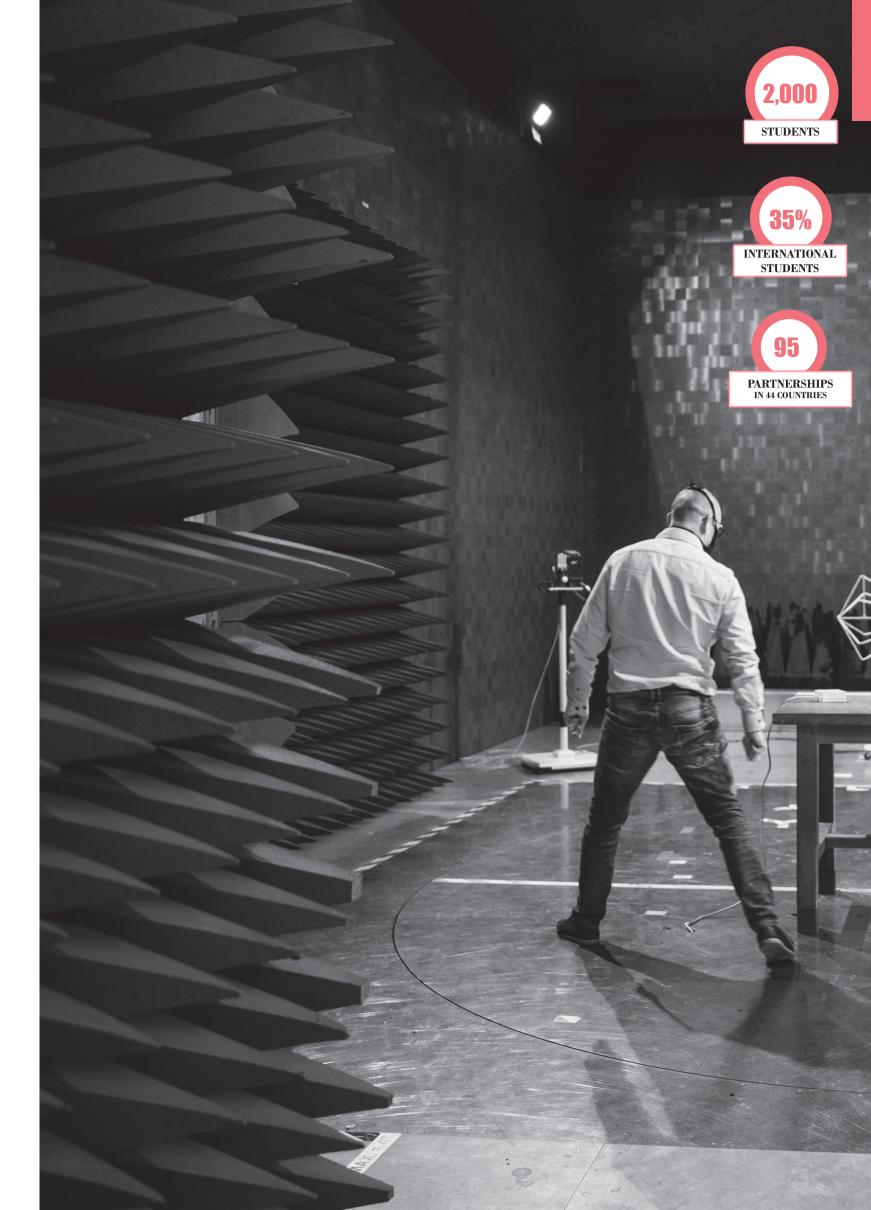
The research laboratory for embedded electronic systems, IRSEEM, opens its state-of-the-art technological platforms for project-based teaching and thesis work. Research activities have applications in particular in connection with the major sectors in the Normandy region: energy, automotive and aeronautics as well as e-health.

A CHOICE OF FIFTEEN MAJORS

Positioned in systems, the digital and energy transition and mobility, the majors are all taught in English and French: Automotive and Aeronautics Electronics - Energy and Sustainable Development - Electrical Engineering and Transport - Big Data - Digital - Telecom - Cybersecurity - Robotics - Embedded Systems (Autonomous Vehicles or Communicating Objects) - Mechatronics - Medical Systems - Business Engineer (IT, Networks or Energy and Signal Distribution) - Finance.

RESEARCH ACTIVITIES RELATED TO NORMAN SECTORS





FOCUS ON UNILASALLE

UniLaSalle is an engineering school offering a wide range of courses in the fields of Life and Earth Sciences. UniLaSalle Rouen Campus is the choice to work in the field of life sciences and sustainable development on international issues.

A DISCOVERY OF 5 UNIVERSES

Agronomy and Food Industries, Environmental Engineering, Geology, Food Health, Agri-food and Bioprocesses: the two-year integrated preparation course allows students, thanks to the options, to explore the 5 universes of UniLaSalle for a better visibility of the professions and the choice of specialisations on the 4 Campuses.

AN INTERNATIONAL CAMPUS

With 4 international programmes (BSc, MSc, CTI Engineer) favouring the arrival of foreign students, interculturality is experienced on a daily basis on the Rouen Campus. Skills are worked on with international issues: the subjects and case studies are international, dealing for example with the cultural systems of Africa or Oceania.

AN EXPERIMENTAL CAMPUS

The Rouen Campus is UniLaSalle's incubator for pedagogical innovations, with reinforced support, human-sized groups and skill assessments every semester. Each assessment, beyond the skills set on knowledge and know-how, is also based on "soft skills" (behavioural aptitudes and interpersonal skills)... The pedagogy is based on "learning by doing and by searching", i.e., teaching through research and practice. Active pedagogy offers each student the possibility of integrating his or her own data (analysis of soil, food, data collected during a work placement or professional project, etc.) or objects of study into the pedagogical content.

INTEGRATING SUSTAINABLE DEVELOPMENT SKILLS

THE PRISM OF SUSTAINABLE DEVELOPMENT

UniLaSalle cross-references the skills referentials of its training courses with those of sustainable development (the sustainable development objectives (ODD4) set by UNESCO) and implements them. Each student is led to ask questions about the sustainability of the methods and processes studied. After 5 years of study, the engineering degree allows students to work on solutions to agro-ecological, ecological, energy, food and digital transitions.





FOCUS ON ESADHAR

The result of the merger of the Fine Arts Schools of Rouen (created in 1741 by the painter Jean-Baptiste DESCAMPS) and Le Havre (created in 1800 by the architect Antoine-Marie LEMAÎTRE), ESADHaR does not have too many with two sites, to cover its broad disciplinary spectrum ranging from the plastic arts to graphic design, via literary creation (a singularity!). By the sea or riverside, one pushes open the door of this lively and professionalizing art school.

Fifteen minutes by tramway to reach the beach, from Le Havre campus; one hour by train to reach Paris and its major national museums, from the Hauts de Rouen campus, Le Havre-Rouen School of Art and Design is distinguished by a fertile and inspiring environment.

EQUIPMENT AND TOOLS FOR CREATING AND SEARCHING

Whether they enter the school through a competitive entrance examination, or by the side paths (via the integrated preparatory class in Évreux, via a Validation of Acquired Experience, etc.), its 317 students benefit from a curriculum where the Practical application is at the top of the list. from the first year to Baccalaureate+3 (DNA-Diplôme National d'Art) and Baccalaureate+5 (DNSEP-Diplôme National Supérieur d'Expression Plastique) and doctorate (RADIAN). With their cutting-edge equipment, the workshops promote multiple practices, which combine traditional skills (bookbinding, calligraphy, screen printing, rotogravure, etc.) and multimedia techniques (coding, computer-assisted design, sound and video editing, etc.).

OPEN TO LIFE, TO THE CITY, AND TO THE WORLD

PREPARING FOR A "REAL" JOB

This situational process is a decisive prelude to working life. In order to train its artists, graphic designers, writers or curators, ESADHaR multiplies opportunities for professional immersion or cooperation with targeted contributors (workshops with writers, conferences with artists, mounting exhibitions in the gallery, etc.).

ROOTS AND WINGS

This experiential dimension is reinforced by an international outlook. In addition to the Erasmus scheme, the Margate school programme provides an international DNSEP in 2 years, bringing together students from all backgrounds and hosted in alternation with the Margate site in England. Furthermore, international exchanges take place with South Korea, Brazil and Israel, familiarising students with international mobility.

ESADHaR



FOCUS ON ÉSAM CAEN/CHERBOURG

5 YEARS TO DESIGN THEIR OWN ARTISTIC PROJECT

The ésam, the Caen/Cherbourg Higher School of Arts & Media, combines the wisdom of the elders - the Caen School of Fine Arts was founded in 1795 - with the modernity of the pedagogues rooted in their time. Aspiring designers and visual artists find a whole range of possibilities here.

Among the public art and design schools, the Caen School of Art & Media will merged with the Cherbourg School of Art & Media in 2011, to become the ésam as we know it today. Admissions are made during the Baccalaureate or post-Baccalaureate year and on the basis of a competitive examination. In Cherbourg, there is a public preparatory class of 40 students, which prepares them in one year to enter the higher art school of their choice. In Caen, the Bachelor's degree is an exploratory cycle. In both cases, students entering the ésam are chosen for their strong appetite for culture and must demonstrate a personal artistic practice, whatever it may be, that demonstrates their desire to create.

ENVY AS A DRIVING FORCE

Three options - Art, Graphic Design and Publishing Design - guide the curriculum. A Doctorate in Creation, RADIAN, developed in partnership within Normandie Université, completes the training offer. Julie LAISNEY, Director of External Relations, explains: "The first year of the bachelor's degree is common. Our objective is for students to acquire theoretical, technical, historical, artistic and cultural bases. Our courses are 80% practical, where all forms of artistic expression are explored". The school, with a teaching team made up of art and design professionals and very well equipped technically, affirms its desire to give everyone the best. Open to the outside world, it also forges numerous partnerships with cultural structures.

OFFERING OUR STUDENTS, A WIDE RANGE OF POSSIBILITIES

The generalist approach at the beginning of the course is individualised from the 2nd year onwards. Twelve workshops supervised by specialised technicians are open to students (volume, foundry, printmaking, photography, digital creation, video, sound), during classes or individual appointments. They have 5 years to develop their plastic language and mature their own artistic project. Julie LAIS-NEY continues: "We ask students to make a very strong personal commitment. These are exciting but demanding studies!"

Once they have graduated, the school continues to follow its artists via the "ésam Starter" programme, which gives them access to creative residencies and workspaces in France and abroad.

ésam ^{Arnau} Direct

Arnaud STINÈS, Director General of ésam Caen/Cherbourg



FOCUS ON EM NORMANDIE

With its excellent academic background, EM Normandie, a "Grande École" with double EQUIS and AACSB accreditation and one of the Financial Times Top 90 European Business Schools, trains responsible and agile managers, ready to respond to the variable geometry of companies and their future challenges.

Whether they choose the Grande Ecole Programme, the International Bachelor's Degree in Management or one of the 15 Specialised Masters[®] or Masters of Sciences[®], students at EM Normandie forge "a human, digital and structuring experience". To serve this ambition, the two Normandy campuses in Caen and Le Havre - like the Paris, Dublin and Oxford campuses - are equipped with the latest educational technologies and configured to allow interaction, sharing, creation and experimentation.

150 YEARS OF EXPERIENCE IN TRAINING THE MANAGERS OF THE FUTURE

THE FIRM OF TOMORROW AS AN EDUCATIONAL HUB

In order to guarantee its excellent integration rate (more than 96% of working graduates hold their first job within 3 months of graduation¹), EM Normandie is at the heart of the business ecosystem. It is as much concerned with developing its educational programmes according to the needs of recruiters as it is with training young professionals "capable of evolving in a changing and intercultural market in cross-disciplinary functions".

Thus, the Business School is constantly innovating, creating new modules, new specialisations and new electives in direct contact with major current issues, such as the alternative or digital economy. And it also strives to develop those 'soft skills' that head-hunters are looking for: emotional intelligence, adaptability, open-mindedness...

GETTING INVOLVED: ACTION AS A VEHICLE FOR LEARNING

Studying at EM Normandie also means getting involved in citizen, associative and professional projects. Opportunities to put oneself in a real-life situation, to confront one's knowledge with the reality on the ground are permanent and the School has become a leader in the field of workstudy programmes. The international dimension is also at the heart of the learning experience. EM Normandie has two international campuses in Dublin and Oxford and has more than 200 partner universities in over 60 countries. A twoway international opening, as 700 international students are welcomed each year on the national campuses, whose hospitality is widely appreciated.





^{1.} According to the 2020 integration survey carried out among graduates of the "Programme Grande Ecole 2019" (Higher Education Institutions Programme)

FOCUS ON NEOMA BUSINESS SCHOOL

In order to train managers with a high level of employability, gifted with initiative and creators of value, NEOMA Business School frees itself from classic teaching conventions in favour of innovative models.

NEOMA promotes an immersive approach to the training programme. Whatever the chosen curriculum, students are immersed in the great bath of experimentation, as shown by these two model schemes: the Startup Lab and the Specialised Accelerators. The Startup Lab, which provides tutored support in project management, has already helped more than 170 start-ups to emerge since 2011 and each year hosts more than 100 projects in incubation. The Mobility Accelerator on the Rouen campus, meanwhile, deploys a complete arsenal of mentoring for business creation, where you learn, for example, how to "pitch" your project in front of potential investors.

A SCHOOL CONCEIVED AS A MANAGERIAL INCUBATOR

UP-TO-DATE PROGRAMMES, SERVED BY A PROGRESSIVE PEDAGOGY

Attentive to contemporary changes, NEOMA Business School challenges its pedagogical models and constantly develops its training courses. The emerging field of innovation, as well as Logistics and Supply Chain, adapted to the specificities of the region, figure prominently.

The latest demonstration of this flexibility, the 100% virtual Campus was inaugurated in September 2020. The first of its kind in Europe, it is a powerful counterbalance to distance learning. Students and professors have a personalised avatar, free to move around and intervene in a campus reconstituted in virtual reality. This on-line Campus, permanently accessible, facilitates exchanges and regenerates interactions between members of the NEOMA community.

A STIMULATING AND IMPLICIT ENVIRONMENT

With its high-tech classrooms, generating creativity and interactivity (augmented learning rooms, creativity rooms), its numerous immersion programmes abroad, its hectic student life (90 associations and 500 annual events), NEOMA Business School acts at all levels to stimulate the potential of its students. And thus, better reveal their talents.

AN INTERNATIONAL IMMERSION

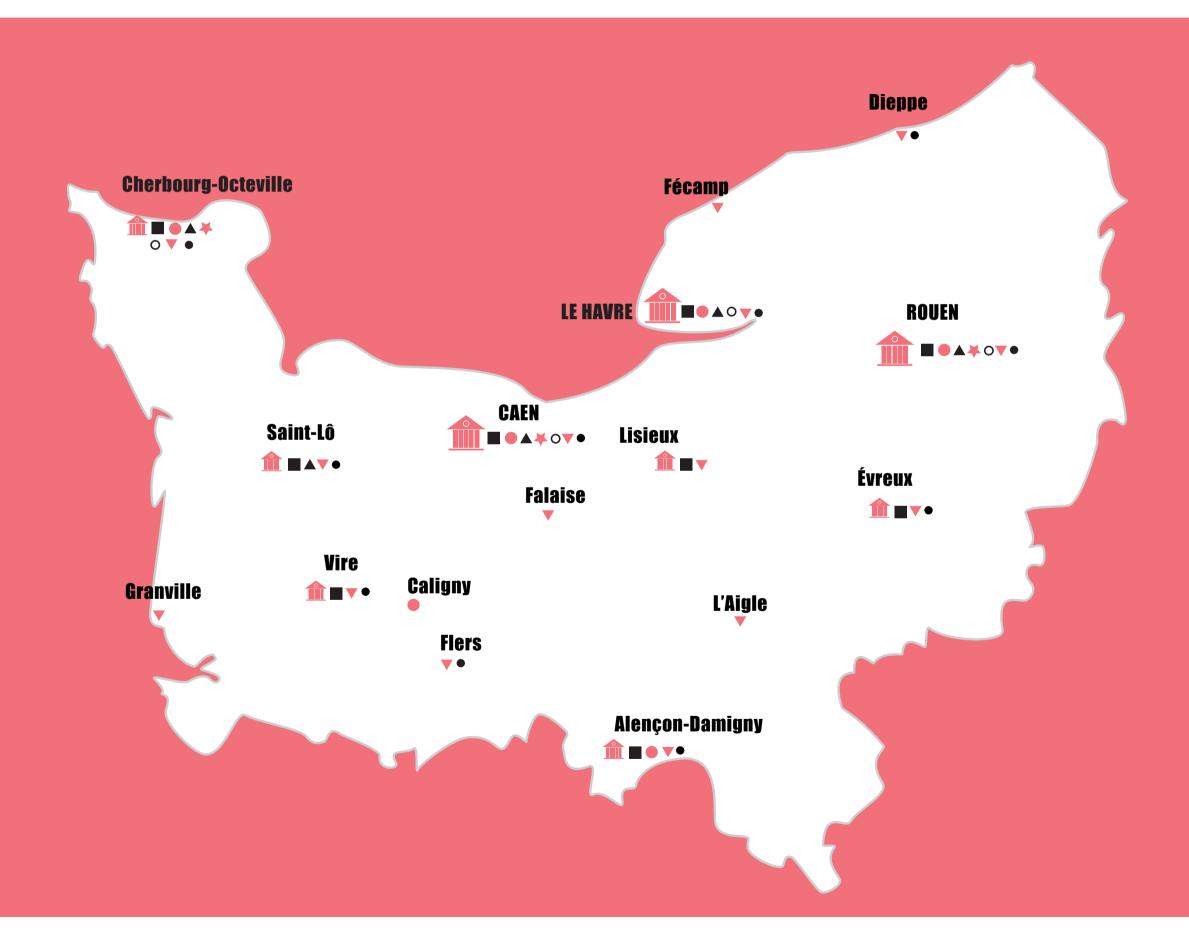
Students benefit from a network of 338 universities of excellence around the world which enriches their career path.







FOCUS





PRO FILES



Coordinator of the Graduate School of Research XL-Chem

ORCHESTRATING THE TRAINING OF FUTURE LEADERS

Since last September, the first class of the XL-Chem programme has been in full swing. This Graduate School of Research, supported by Normandie Université, is directed by Pierre-Yves RENARD. He is the conductor of this project selected following the call for projects of the Programme d'Investissements d'Avenir (Future Investment Programme) launched by the State in 2018. The school trains the entrepreneurial chemists of tomorrow.

Normandy has had a recognised know-how in the chemical sector for decades. Several international players in the fields of petrochemicals, pharmaceuticals, additives and lubricants, rubber and plastics, fertilisers and paints are established in the region. "With 230 plants, we are the second largest chemical region in France," recalls Pierre-Yves Renard, project leader and scientific manager of XL-Chem¹. This favourable industrial breeding ground is reinforced by the SynOrg Laboratory of Excellence (LabEx), winner of the 2012 AAP LabEx award of PIA, which is the largest French research centre for organic synthesis applied to living organisms. Supported by Normandie Université and the CNRS, it is based on the association of four organic synthesis laboratories, two in Normandy (LCMT in Caen, CO-BRA in Rouen) and two in Centre Val de Loire (ICOA in Orléans and IMT in Tours). It benefits from the support of the supervisory bodies of its laboratories, the universities of Caen Normandy, Orleans, Rouen Normandy and Tours, INSA Rouen Normandy and ENSICAEN and the Normandy and Centre-Val de Loire regions. This lever is the academic research arm of the PharmaValley and Cosmetic Valley. It initiated the Industry, Research and Training triptych.

TRAINING FUTURE LEADERS IN MO-LECULAR CHEMISTRY

Having undertaken a regional structuring effort since the 1990s, the academic research laboratories in chemistry have been working together for a long time, in particular via the Institut Carnot I2C, the second pillar of the triptych, which brings together 8 Norman laboratories and develops research excellence in synthesis, analysis and formulation. "We know each other well, so we stick together, playing on our complementarities, we respond together to international calls for tenders."

 XL-Chem, supported by Normandie Université in partnership with the CNRS Normandy, is backed by the three Norman universities (Caen, Le Havre and Rouen), two engineering schools (ENSICAEN and INSA Rouen Normandy) where Master students will be enrolled, and eight research laboratories.



The creation of XL-Chem is the third component of the regional molecular chemistry expertise. Benefiting from a substantial budget (€4.1 million from the State, via the National Research Agency, and €1 million from the Normandy Region), XL-Chem will train scientific managers capable of meeting industrial problems related to organic and analytical chemistry at the frontiers of the fields of health, perfumes and cosmetics, materials and analysis. "Strengthening the master-doctorate-valorisation continuum", insists Pierre Yves RENARD.

Progressing in a group, like the scrum in rugby, Pierre-Yves RENARD is used to it. X86, after his thesis obtained at X (École Polytechnique de Paris) in 1994, under the direction of Jean-Yves LALLEMAND, the young researcher in molecular chemistry joined the corps of armament engineers. His first host laboratory, the marked molecules department of the French Atomic Energy Commission (CEA - Saclay), is under contract with the French Defence Procurement Agency (DGA). "I worked there for 9 years, with Dr. Charles MIOSKOWSKI as a mentor. I have followed numerous contracts aimed at finding biocompatible means to fight against organophosphorous neurotoxics used as chemical warfare weapons. I also retain from this period a great habit of negotiating with institutional or foreign interlocutors."

In 2003, Pierre-Yves RENARD was appointed University Professor at the University of Rouen Normandy where he was in charge of creating a bioorganic chemistry team within the COBRA laboratory.



WE ARE THE SECOND LARGEST CHEMICAL REGION IN FRANCE

A CURRICULUM OF EXCELLENCE SUPPORTED BY A MENTOR

Thanks to his experience, Pierre-Yves RENARD PhD theses in collaboration with renowned foreign is the conductor of the course. "XL-Chem does Universities are also offered. PhD students will not have a physical location, so we offer students be offered training in management but also enentering the master's and doctoral programmes trepreneurship thanks to Normandie Valorisation from all over the world tailor-made courses, comand the CNRS. bining courses of excellence in chemistry with in-The school has barely been inaugurated, but depth training in entrepreneurship and manage-Pierre-Yves RENARD and his team are lookment and immersion in the world of research", ing further ahead. "We wish to accelerate the he explains. "Each student will be able to build arrival of international students by introducing his or her own curriculum based on credits givdouble degrees with prestigious universities and en by French and foreign scientists, in English of the setting up of Erasmus Mundus labels". Once course". As part of their course, Master's students will go on a six-month internship in a foreign trained, these future executives will be armed to become leaders in the scientific industries concompany or laboratory (England, Italy, USA, tributing to the cutting-edge research underway Canada, etc.) that is a partner of XL-Chem, in in the world... The XL-Chem course will make order to facilitate their professional integration. Normandy shine internationally! Finally, they will benefit from a mentor (professor-researcher or researcher) who will guide them in their educational choices. The three aspects (courses of excellence, immersion in a research

project and management) are a real plus for future scientific executives in the chemical industry. Thanks to the support of the Normandy Region,

PROFILE OF FABIEN PAQUET

Lecturer-researcher in medieval history at the University of Caen Normandy

THE MEANING OF HISTORY

Fabien PAQUET is a professor-researcher (ATER, "temporary Lecturer and Research Assistant") at the University of Caen Normandy. In 2020, he was awarded the Flaubert Foundation prize for his thesis on abbey powers in medieval Normandy. A prize that distinguishes the young researcher's approach to popularisation.

"Our role is also to make this raw material that is research accessible to the greatest number of people. Otherwise, what use is it to society to make history?"

Fabien Paquet does not dissociate his role as a researcher and a professor. The object of his scientific research - medieval history - takes on meaning when it is disseminated and shared. With his students, but also with the general public.

"It's part of the job," he says. This stance convinced the Flaubert Foundation, which awarded him its Thesis Prize in 2020, which recognises the most accomplished work in the human and social sciences that provides a new approach to social issues.



As a doctoral student at the University of Caen Normandy, Fabien Paquet studied the role played by abbots in the integration of the Grand Duchy of Normandy into the Kingdom of France at the beginning of the 13th century and during the Hundred Years' War. "My initial question was: how could such a large, economically and politically powerful duchy, be integrated into the royal Capetian kingdom, which was still very small on the eve of Philippe Auguste's victory? My choice was to look at how local society experiences this change of domination; and therefore, I opted for the powers represented by the abbeys, whose social weight could be comparable to that of our companies. With one advantage for the historian: we have a wealth of sources documenting the history of monasteries. For three years, he combed through hundreds of chronicles, charters and registers to gather information on these abbots of the diocese of Rouen. In the archives, in Evreux. Rouen and Paris, but also in the British Library in London and the Vatican Apostolic Library. From the study of these documents, he drew a "prosopography", a description of a social group from individual records built on the same model. More than 200 records which, after having fed into his thesis, could have ended up in a desk drawer... Except that at CRAHAM, the Centre for Archaeological and Historical Ancient and Medieval Research at the University of Caen Normandy, founded in 1959 by the father of scientific archaeology, Michel de Boüard, it has long been known that data can be shared. Fabien PAQUET's research unit regularly collaborates with the uni-

en versity's Digital Document Centre. The challenge: to make history by using digital tools to exploit and process sources. The Flaubert Foundation's endowment (5,000 euros) will therefore be used to launch this ambitious project, carried out by the young researcher: "to create a large digital database on the medieval abbots of Normandy", accessible to all, where "a researcher will be able to find sources, a student or an amateur historian will be able to find legible information on these hundreds of men of power who made the history of the region". Something "pretty, ergonomic, with images, a search engine". In short, a tool for popularising science.

HISTORY FOR ALL

Fabien PAQUET masters the subject. When he was a student in history at the École Normale Supérieure de Lyon, he took a "year off" from his studies, between the Master 2 and the Agrégation to do an internship at L'Histoire, a popularised journal devoted to history. He is still working there and in 2019 he joined the journal's scientific committee, alongside experienced historians. A specialist in the medieval period, he participates in the editorial design of the review and assists the authors in turning their scientific texts into clear and illustrated educational articles.

At the end of his thesis, in 2018, he obtained a position as temporary Lecturer and Research Assistant (ATER) at the University of Caen Normandy, where he teaches medieval history and historical research based on ancient sources.



At the same time, he publishes his thesis with the Presses Universitaires de Caen ("transforming an academic exercise into a real book"), participates in the Annales de Normandie, the regional studies journal of the University of Caen Normandy, and organises symposiums and study days. In 2023, for the millennium of the beginning of the reconstruction of the Romanesque abbey church of Mont Saint-Michel, he will organise a colloquium in Cerisy-la-Salle on current research on France's second most visited national monument. "History fascinates people. Our role as historians is to share the fruit of our research. I claim to make history for everyone and on a territory that is mine: Normandy".











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