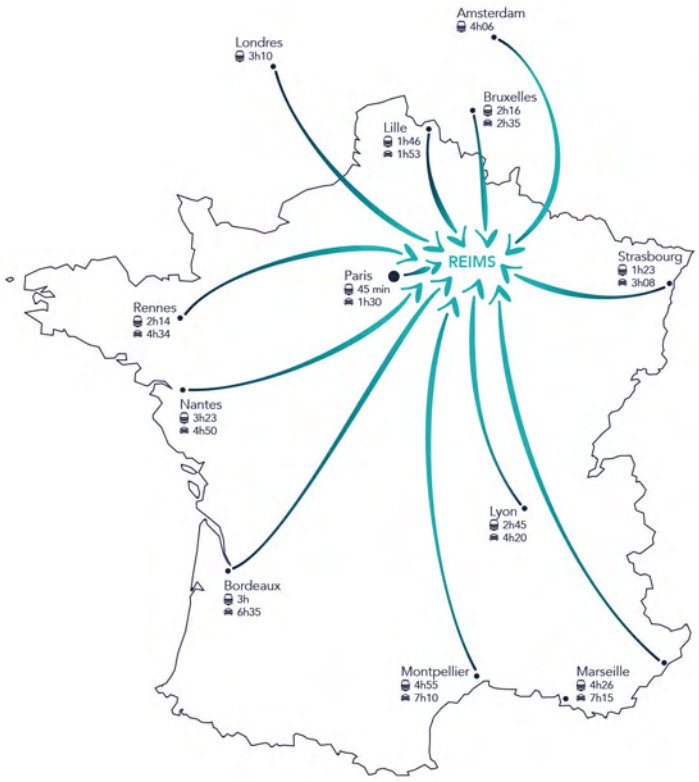
The University of Reims Champagne-Ardenne: a place of educational innovation and research excellence

In the service of higher education and research for 475 years

UNIVERSITÉ DE REIMS CHAMPAGNE-ARDENNE

A strategic location

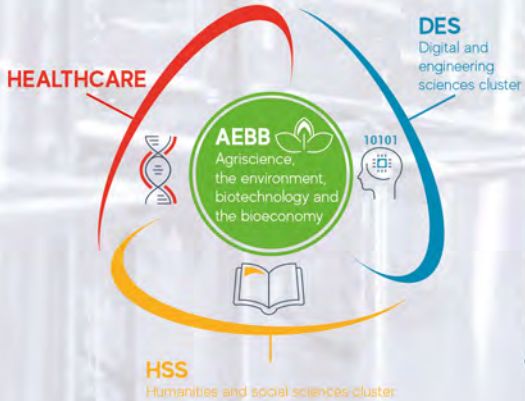
Located at the heart of areas of activity of Ile-de-France, Rhineland, northern Europe and Italy, URCA occupies a geostrategic position for European and international exchanges. Numerous motorway links and TGV service put Paris and Roissy airport just at thirty minutes away from the university.



An identity focused on a regional, national and European priority: the bioeconomy

The URCA is a nationally and internationally recognized multidisciplinary training and research university whose groundbreaking work in the fields of bioeconomy and ecological transition makes it an important international player in this specialty.

This academic identity is at the heart of an interdisciplinary research approach which branches into four distinct strategic excellence clusters:



- A multidisciplinary cluster with an international dimension and a focus on agriscience, the environment, and biotechnology and bioeconomy (AEBB); with an added emphasis on a sustainable production of the local agriculture and wine cultivars. Seeing as the region boasts a strong wine-growing economy, the sustainability of its biomass by its tinkering through green chemistry and biotechnologies is a priority. Therefore, the study of climate change and ecological transition is at the forefront of the university's endeavors.
- A healthcare cluster championing scientific niches of excellence in the fields of medical and paramedical training.
- A Digital and Engineering Sciences cluster (DES) focused on high-performance computing, industry 4.0, artificial intelligence, and technological development.
- And finally, a Humanities and Social Sciences cluster (HSS) revolving around transformation, transition, and mutation.

To increase its influence and give impetus to its new drive, the university of Reims brings together many important actors in higher education and research from all over the region. These entities are all committed to a shared strategic approach based around the four aforementioned scientific applications clusters.

Whilst firmly rooted in its region, with 13 campuses in five major towns, the university of Reims also holds an ambitious international outlook and contributes to the development of higher education and research at the national and European levels. Thus, URCA is a considerable contributor to the dynamism, attractiveness, and competitiveness of the international academic landscape.

Committed and responsible for a fair, open and inclusive society.

Faced with the environmental and social challenges of the 21st century, the University of Reims Champagne-Ardenne is committed to contributing to the achievement of the 17 Sustainable Development Goals (SDGs). As such, URCA has chosen to develop university courses and to step-up research on Bioeconomy, environment, ecological transition, and artificial intelligence. This comitment is also reflected in management and governance.

Carefully considered values based on civic engagement

URCA trains executives, employees, business creators, doctors, researchers, but above all the citizens of tomorrow.

As an institution guaranting and promoting the values of the French Republic and the European Union, the university fights against all kinds of discrimination and strives to address the challenges of our society.

The university's commitment is reflected by numerous initiatives to promote equality and diversity, professional codes of ethics, secularism and countering racism and anti-Semitism, sustainable development and social responsibility, access to healthcare and disability. Moreover, it actively participates in the promotion of Human Rights and multiculturality through its policies, both locally and internationally, especially in regards with the most vulnerable populations. It also contributes to improving the reception of international audiences and is developing a project aimed at those in exile: refugee students and academic staff, exiles and asylum seekers.

Advocating a policy where the voice of science is at the heart of societal debate, URCA has an ambitious science strategy with and for society. The university promotes exchanges between research and citizens and contributes to the progress and strengthening of society.

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A shared ambition to meet the challenges of tomorrow

850 Researchers and teacher Researchers

31 Laboratories
- **4** CNRS,
- **1** INSERM,
- **2** INRAE (1 UMR,1 USC),
- **1** INERIS,
- **1** ANSES,
- **1** CEA

15 technological platforms and technical facilities

1 LIA
(International Associated Laboratory)
CNRS SAMIA
(Absorption Spectroscopy of Molecules of Atmospheric or Planetological Interest)

8 academic and industrial chairs including 1 INSERM and 1 ANR chairs

5M€ of research contracts and services

From fundamental to applied, URCA conducts excellent research in close collaboration with research organisations whose objective is to meet the challenges of the 21st century by producing new knowledge and innovation.

For thirty years, the university has studied resources, their production, and their valorization, in the fields of biology, soil and environmental sciences, chemistry, engineering, digital, humanities and social sciences.

Bioeconomy is a a regional, national, and European priority and lever for major strategic development. As such, it offers an opportunity for reindustrialization, as well as a competitive advantage conducive to the development of innovation in new fields for the future.

Research

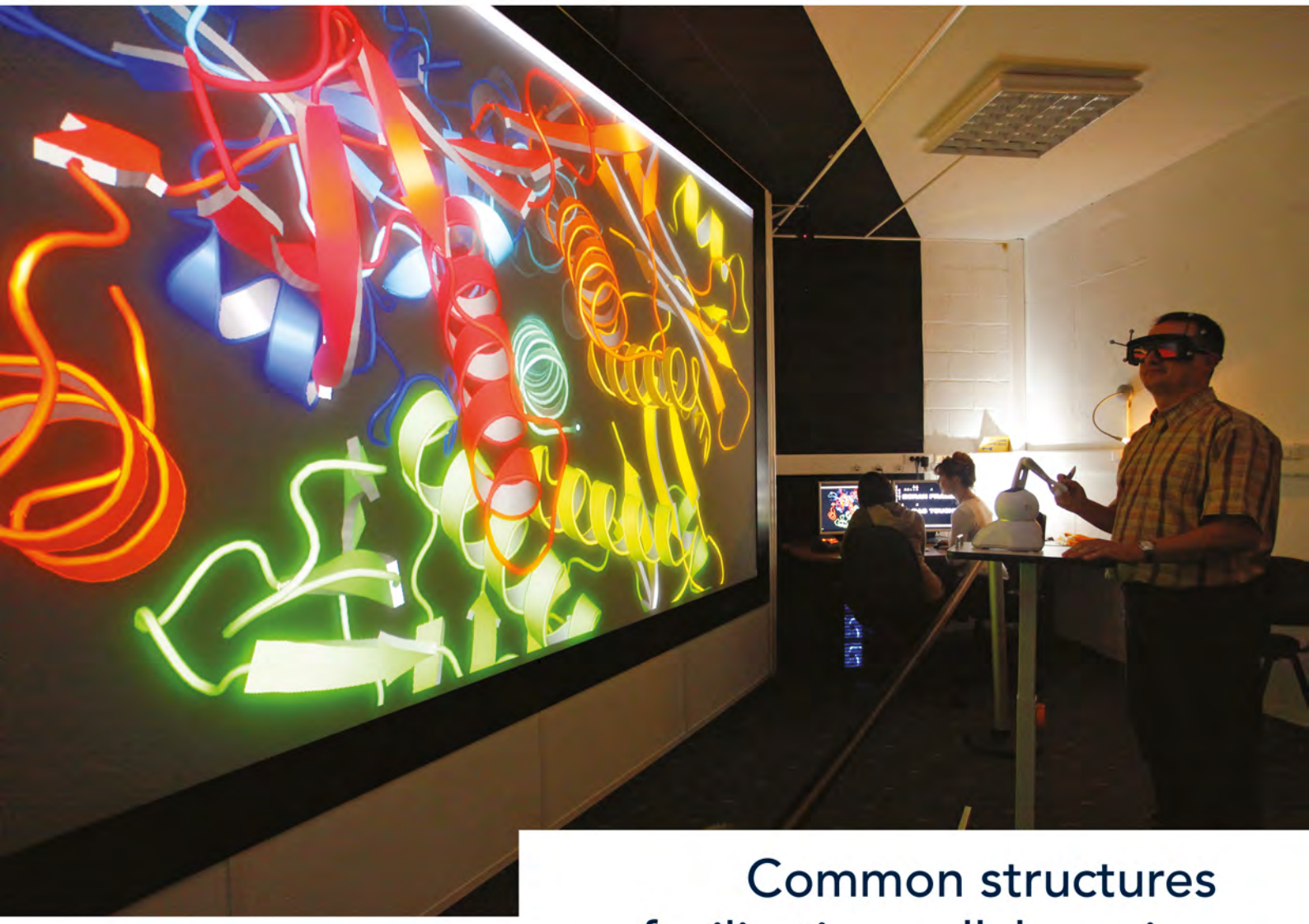
URCA builds its scientific strategy around its 4 interfaced scientific applications clusters.

The cross-disciplinary nature of the disciplines mobilised makes it possible to develop original interdisciplinary approaches and new solutions to address contemporary problems and challenges.

Recognized by multiple major research organizations (CNRS, INSERM, INRAE, INERIS, ANSES, CEA), URCA supports research through strategic partnerships at the regional, interregional (CGE, Institut Carnot MICA, INERIS), cross-border (UMons, ULg, RWTH Aachen) and international levels. With its tight cooperation with actors in the economic and industrial sectors, URCA also takes an active role in global competitiveness clusters such as Bioeconomy for Change (ex IAR), Biovalley (Healthcare), Materalia (structuring materials and innovative processes), and the European Centre for Biotechnology and the Bioeconomy (CEBB).

URCA facilitates the transfer of technology and knowledge from public research to businesses through its technology transfer acceleration company (SATT) and its start-up creation incentive policy.

Additionally, its federative research structures contribute, through their work, to the dynamism of its scientific policy. The "FR-CNRS Condorcet", with its 30 national and international research laboratories and more than 700 researchers, focuses on the valorization of the Bioeconomy, whereas the "SFR Cap Santé" deals with biochemistry, imaging, and the humanities and social sciences.



Common structures facilitating collaboration

5 technological platforms

13 technical facilities

HEALTHCARE

INDUSTRY OF THE FUTURE

AEBB
agriscience, the environment, biotechnology and the bioeconomy

MATERIALS / NANO

MAISON DE LA SIMULATION

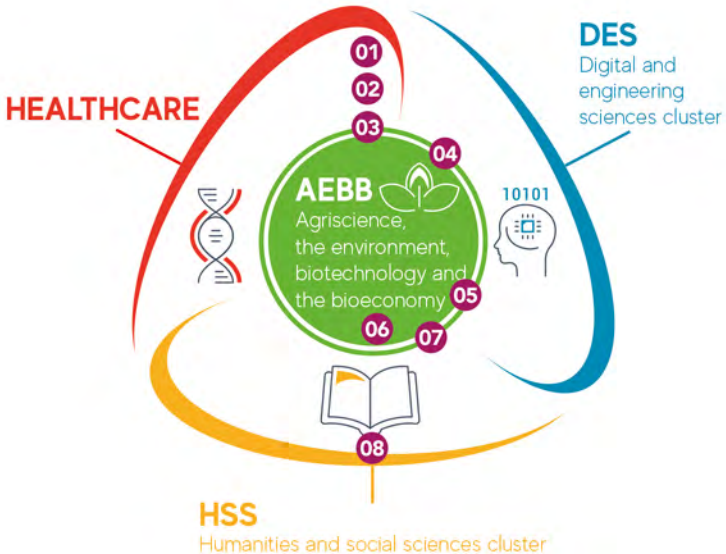
Technological platforms: performance and competitiveness tools

The University of Reims Champagne-Ardenne offers companies and its partners the opportunity to access cutting-edge technology equipment and quality services.

It has 5 technological platforms and 13 technical facilities:

- Maison de la simulation:
  development of high performance computing, virtual reality, modelling with the supercomputer ROMEO;
- AEBB: (agriscience, the environment, biotechnology and the bioeconomy)
  molecular analysis, behavioural ecology, cytometry;
- Materials/Nano
  nanotechnologies, characterisation;
- Industry of the future
  rapid prototyping, 3D scanning, digital engineering;
- Healthcare:
  imaging, cytometry, animal house, biological resource centre.

Fostering synergy and development, structuring projects reflect the DNA and ambition of the URCA



01 Artificial-Intelligence Institute for Healthcare

02 DeMETeRE (PIA 4 DemoES)

03 MesoNET (EquipEX+)

04 Junior professorial chair
Atmospheric and carbon-cycle sciences
Biosourced, eco-designed and multifunctional materials

05 OBS4CLIM (EquipEx+)
LabCom LYNNA
Chairs

06 EXEBIO (EquipEx+)
ZARG (Argonne workshop zone)

07 TERRAFORMA (EquipEx+)

08 Human Science Establishment

Structuring projects

The scientific identity of the URCA revolves around structuring projects that help to assert its specialisation strategy related to the bioeconomy. As such, URCA responds to new calls for national excellence projects.

PIAs

- CMQ for BIOECO Academy excellence: bringing together partners in the field of the bioeconomy, particularly plant biorefineries, industry and local authorities.
- DeMETeRE: intended to create genuine "regional training ecosystems".
- EXEBIO (coming submission of application): creation of an "Institute for a Sustainable Bioeconomy and Ecological Transition".

EquipEx+ teams

- TERRA FORMA: intended to design and test smart monitoring of territory in today's Anthropocene epoch.
- OBS4CLIM: presenting an integrated atmospheric observation system.
- MesoNET: mesocentre network.

Chairs

- Atmosfere (ANR chair) around greenhouse gases.
- Atmospheric and carbon-cycle sciences (junior professorial chair).
- Biosourced, eco-designed and multifunctional materials (junior professorial chair).
- URCA chairs of excellence (Magics, Maldive, Afere, Matur, ecological accounting, ESS).

The LabCom LYNNA (joint URCA/CNRS/Total Energies laboratory): greenhouse-gas emissions.

The ZARG (Argonne workshop zone): long-term interdisciplinary socioeconomic, environmental and ecological research projects.

The Artificial-Intelligence Institute for Healthcare: catalyst for research projects related to the analysis of health data using artificial-intelligence methodologies (data science).

¨La Maison des sciences de l'Homme¨ – preparation in progress

29,100 students have chosen the URCA

More than **150** qualifications, ranging from diplomas granting access to university studies to doctorates.

8 training and research units

2 engineering schools

2 university technological institutes

1 Higher National Institute of Teaching and Education

4 doctoral schools

1 Champagne Vine and Wine Institute

4 major fields of training:
- Arts, Letters, Languages
- Humanities and Social Sciences
- Law, Economics, Management
- Science, Technology, Healthcare

Open to the world, connected to society, focused on students' needs and at the cutting edge of technology, URCA provides all students with the means to achieve their own success.

The DeMETeRE project brings training within the grasp of learners wherever they live or study and whatever their occupation, skills, and career path. To ensure greater success and better professional integration and progress, the individualized training programmes offered by this project optimize the acquisition and use of non-academic knowledge and skills through in-situ assistance.

Training

URCA offers multidisciplinary training with a complete healthcare course. It also offers initial and continuing education.

Based on the link between research and training, and in partnership with professional groups, its academic project enables all its students to acquire the skills, qualification, knowhow and personal qualities needed for their full integration within the working world and their ability to adapt, essential in a constantly changing world.

Given the continuous shifts in needs and new emergent sectors of development, the university must be able to adapt and offer new contents. This is made possible thanks to multidisciplinarity and synergy between courses.

Consequently, the university achieves excellent rates of professional integration (92% at Master's level) and impressive results in national rankings, especially for courses related to vine and wine science, big data and cybersecurity.

This diversified educational offer, which takes into account the specificities of each learner and provides the same chance of success for all, enables each student to achieve their optimum level of training.

3,200 foreign students (122 nationalities)

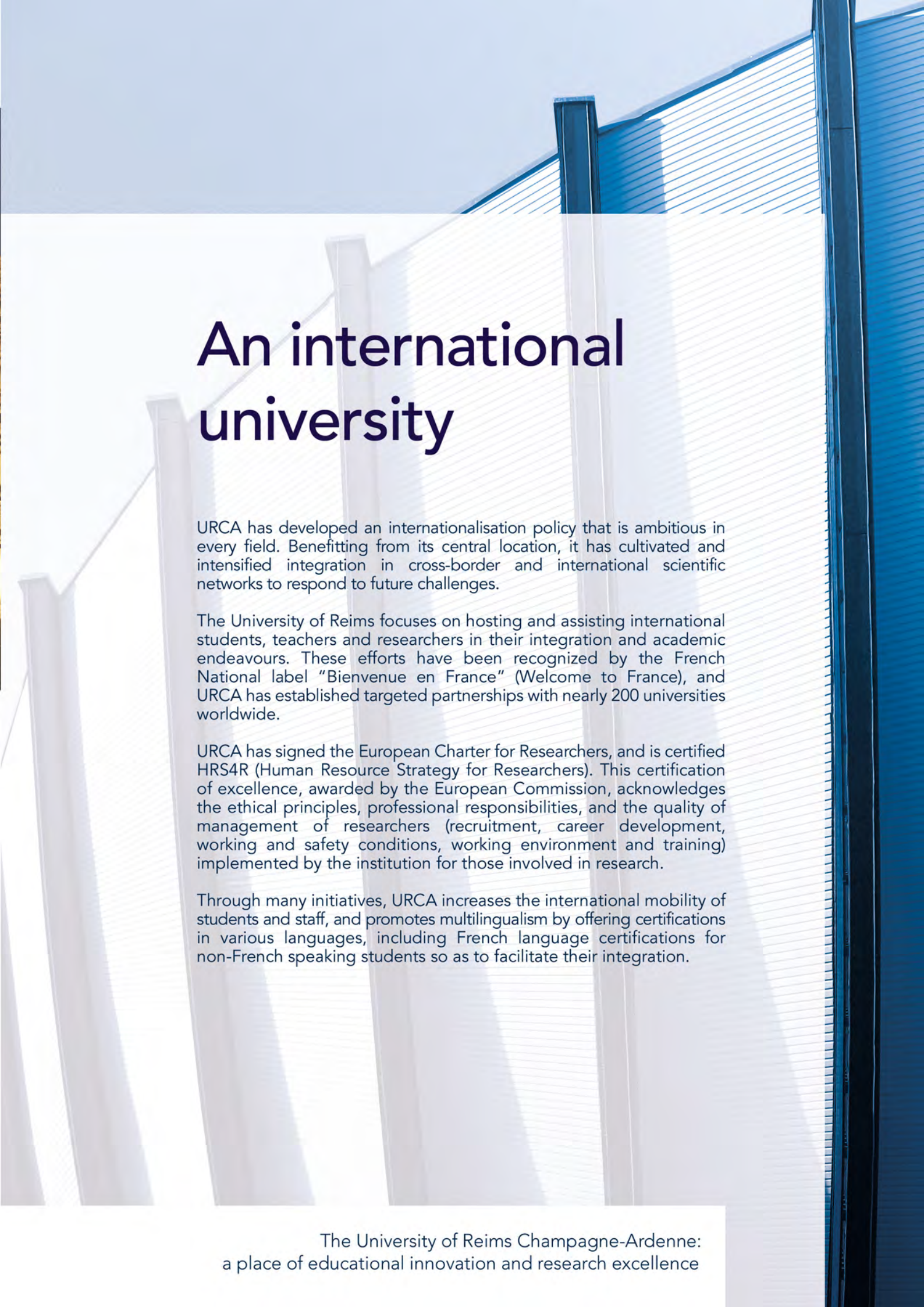
481 cooperation agreements

185 partner establishments

59 countries worldwide

1 European Master in Biological and Chemical Engineering for a Sustainable Bioeconomy

Known for its History, its exceptional sites listed by UNESCO and its vineyards, Champagne-Ardenne attracts visitors from all over the world each year. To better benefit from this ecosystem, URCA has created the Georges Chappaz Institute for Champagne Vine and Wine.



An international university

URCA has developed an internationalisation policy that is ambitious in every field. Benefitting from its central location, it has cultivated and intensified integration in cross-border and international scientific networks to respond to future challenges.

The University of Reims focuses on hosting and assisting international students, teachers and researchers in their integration and academic endeavours. These efforts have been recognized by the French National label "Bienvenue en France" (Welcome to France), and URCA has established targeted partnerships with nearly 200 universities worldwide.

URCA has signed the European Charter for Researchers, and is certified HRS4R (Human Resource Strategy for Researchers). This certification of excellence, awarded by the European Commission, acknowledges the ethical principles, professional responsibilities, and the quality of management of researchers (recruitment, career development, working and safety conditions, working environment and training) implemented by the institution for those involved in research.

Through many initiatives, URCA increases the international mobility of students and staff, and promotes multilingualism by offering certifications in various languages, including French language certifications for non-French speaking students so as to facilitate their integration.

3 language institutes

500,000 works available in 10 university libraries

Over 120 sporting activities

Over 100 cultural activities

64 student associations

Today, climate change is the greatest challenge that humanity faces.

The issue is also at the heart of URCA's institutional policy since bioeconomy and the environment are major components of the university's identity.

URCA carries out a responsible and active policy that upholds the values of sustainable development and social responsibility.

This ambition is based on the deployment of innovative research into the production of knowledge and providing training programmes that reflect its scientific DNA. It also involves the integration of environmental objectives within its purchasing and transportation policies.

A rich and dynamic campus life

Recognised for their dynamism and entertainment values, the services and departments of the university (culture, sport, health, etc.) provide a high quality living and working environment for all their users (students and staff).

Each campus presents a unique setting and high-quality infrastructures : libraries, language centre, work areas, digital technology, research laboratories, business incubators, creative labs, social areas, etc. Digital technology enables URCA to provide many online resources, lessons, virtual visits, dedicated services, and so on.

Located in Reims, Troyes, Charleville-Mézières, Chalôns-en-Champagne, and Chaumont, URCA is a major driving force behind the influence and appeal of the Grand-Est region and France.

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Notes

The university is a driving force in its region

8 faculties

31 laboratories

2 IUTs (University technological institutes)

2 engineering schools

1 INSPE (National Institute of Higher Education and Training)

1 Champagne Vine and Wine Institute

5th largest employer of the former Champagne-Ardenne region (source INSEE)

19,590 jobs enabled, including 10,373 in France

+ €818 M economic impact (wealth created for the region)

5 towns in the Reims regional education authority

29,100 students

Charleville-Mézières : **940**
Chalons en Champagne : **650**
Troyes : **3500**
Chaumont : **110**
Reims : **23, 900**

2,500 staff

1460 Teachers and Teacher Researchers

650 Library, engineer, administrative, technical, social and health staff

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