

UNIVERSITÉ
DE RENNES 1



INTERNATIONAL FACTS & FIGURES



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WELCOME ADDRESS



Université de Rennes 1 is amongst the twelve main universities in France.

It is a multidisciplinary university which is famous for its excellence and dynamic research.

Located in the centre of a city on a human scale, the university is only two hours away from Paris and one hour from prestigious sites such as Mont Saint-Michel or Saint-Malo. Building on our assets and committed to taking part in 21st-century innovation and knowledge, one of our top priorities is to create a vibrant international university.

Université de Rennes 1 has four main research sectors, linked to four graduate schools: **Mathematics and ICT (Information and Communication Sciences & Technologies), Life and Health Sciences, Material Sciences, Humanities and Social Sciences.** The ongoing development of international courses and scientific collaborations has enabled us to reach outstanding results: on a teaching level, we offer degrees taught exclusively in English (11 master's degrees), double degrees with international partners and off-campus training sessions, and our scientific collaborations include around twenty International Associated Laboratories (LIAs) and International Research Groups (GDRIs) in conjunction with the National Centre for Scientific Research (CNRS) or the French National Institute of Health and Medical Research (INSERM). Numerous incoming and outgoing students, lecturers and researchers from all over the world, in addition to our commitment to increase mobility for non-teaching staff, characterise the global network of *Université de Rennes 1*.

28,000 STUDENTS



3,600 INTERNATIONAL STUDENTS

We currently welcome over **3,600** international students (**13%** of the university's student population) and every year, nearly **1,000** of our students undertake an outgoing study programme or work placement. As a result of our close and long-standing ties with a large number of foreign universities and membership in international networks, the internationalisation of teaching and research is continuously growing and strengthening.

Université de Rennes 1 represents **28,000** students, **3,700** employees, **32** research units associated with national research centres, a budget of **€292.4** million and more than **250** PhD degrees awarded every year. Our overarching goal is to provide researchers and students with a unique opportunity to interact with a broad and global network.

JOIN US FOR AN INTERCULTURAL EXPERIENCE
AT UNIVERSITÉ DE RENNES 1!

And contact us at dari@listes.univ-rennes1.fr

32 RESEARCH UNITS



RESEARCH



International research cooperation may take a wide variety of forms with international laboratories:

- International Associated Laboratories
- International Joint Research Units
- Research in Europe
- International Research Network

15 INTERNATIONAL ASSOCIATED LABORATORIES (LIAS)

International Associated Laboratories (LIAs), "laboratories without walls", aim to structure and reinforce an existing collaboration between at least two laboratories, one in France and the other one abroad, for a period of 4-8 years. The LIA activities are coordinated by two co-principal investigators and by a scientific steering committee.

Argentina

- **Fluid Physics and Mechanics (PMF)**
Universidad de Buenos Aires, Institut Pprime Poitiers, ENS Lyon

Canada

- **Exploitation of deep sea resources and protection of surface water resources: relations between science and decision-making (RE-SO)**
Institut National de la Recherche Scientifique (INRS), Quebec

Chile

- **Functional Inorganic Materials (MIF)**
Pontificia Universidad Católica de Valparaíso (PUCV), Universidad de Chile, Universidad de Concepción (UdeC), Universidad de Santiago de Chile, Universidad Católica del Norte, Universidad Católica del Maule (UCM) and Universidad Andrés Bello (UNAB)

China

- **French-Chinese Biomedical Information Research Centre (CRIBs)**
Southeast University (Nanjing)
- **Functional Organophosphorus Materials (MOF)**
Zhengzhou University
- **NanoBioAnalytique et NanoCatalyse Electrochimique (NanoBioCatEchem)**
Xiamen University, Wuhan University
- **Sediment transport And LANDscape DYNamics (SALADYN) in Central Asia**
Lanzhou University, Chinese Academy of Sciences (CAS)

Denmark

- **Environmental Toxicology and StressEcology (ETSE)**
University of Southern Denmark

Germany

- **Catalysis for Sustainable Chemistry (CHEMSUSCAT)**
Leibniz Institute for Catalysis at the University of Rostock

India

- **Laboratory for Sustainable Chemistry at Interfaces (CDDI)**
Indian Institute of Chemical Technology, Hyderabad

Russia

- **Innovative Materials and Nanomaterials Based on Tailor-Made Functional Building Blocks (CLUSPOM)**
Nikolaev Institute of Inorganic Chemistry, Novosibirsk

South Africa

- **Evolution of vocal communication: testing the impact of social systems, phylogeny and conditions of life (VOCOM)**
National Research Foundation, Pretoria and South African Universities (Rhodes University, University of Limpopo and University of Witwatersrand)

United Kingdom

- **Molecular Materials and Catalysis (MMC)**
Durham University

United States

- **Materials and Optics (MATEO)**
Department of Materials Science and Engineering, the University of Arizona
- **Ecological and Evolutionary Genomics of Polyploidy (ECOGEN)**
Iowa State University

... 2 additional forthcoming LIAs in 2017

- **France-Japan Impact Dynamics Lab "Seeing real-time dynamics and impacting materials by light and electric fields (FJ-IDLab)**
University of Tokyo (coordinator), Japan
- **Multipolar and Redox-active Organometallic Nanosized Assemblies for Molecular Photonics and Electronics (REDCHROM)**
Australian National University (ANU), Canberra, and The University of Western Australia, Perth



INTERNATIONAL JOINT UNIT (UMI)

International joint research laboratory CNRS-St-Gobain – Laboratory for Innovative Key materials and Structures (LINK), hosted in the National Institute for Materials Science (NIMS) in Tsukuba, Japan. *Université de Rennes 1* is one of the project partners through the "mirror laboratory" which is based at the Rennes Chemical Sciences Institute (UMR CNRS 6226).

INTERNATIONAL RESEARCH NETWORKS

GDRI bring together several laboratories from two or more countries to coordinate research on a specific topic for a period of 4 to 8 years, while PICS are based on ongoing collaborative relationships between researchers for 3 years. *Université de Rennes 1* includes GDRI in various fields (Law, Materials, and Electronics).

RESEARCH & EDUCATION IN EUROPE

Université de Rennes 1 holds an **Erasmus + Charter**, and gives special attention to the success of the European programme supporting the mobility of students and staff across Europe. In 2015-16, *Université de Rennes 1* has welcomed **176** students and sent **314** students to partner universities in Europe.

At the heart of a rich ecosystem dedicated to information technologies, *Université de Rennes 1* is a satellite hub of the French European Institute for Innovation & Technology (EIT) Digital. EIT Digital is the first EU initiative linking the three sides of the knowledge triangle – higher education, research, business – through Knowledge and Innovation Communities (KICs). Students can apply to the master or doctoral programmes: <http://www.eitdigital.eu/about-us/locations/paris-node/rennes/>.

Apart from the numerous bilateral research collaborations with institutions in Europe, *Université de Rennes 1* has gained a strong experience in elaborating and conducting European research projects under the successive framework programmes of the European Commission. More than 8 million euros of European research projects are currently managed, mainly under the **Horizon 2020** programme:

- **6** Marie Skłodowska-Curie actions (MSCAs) fostering mobility for researchers,
- **7** research and innovative actions.

Moreover, *Université de Rennes 1* currently holds **3 European Research Council (ERC)** scientific excellence projects under FP7 and Horizon 2020 programmes: 2 advanced grants, 1 consolidator grant:

- **DAMREG:** Pushing the Frontiers of Brittleness Damage Resistant Glasses,
- **CRSUCHIRP:** Ultrasensitive Chirped Pulse Fourier Transform mm Wave Detection of Transient Species in Uniform Supersonic Flows for Reaction Kinetics Studies under Extreme Conditions,
- **REACTIVE FRONTS:** Mixing interfaces as reactive hot spots of porous media flows.



FOCUS ON EUROPEAN PARTNERS

With **220** partners in Europe, *Université de Rennes 1* offers its students a wide range of destinations and experiences, such as University of Augsburg, Friedrich-Alexander Universität Erlangen-Nuremberg, University of Exeter...

INSTITUTIONS IN POZNAN – POLAND

University of Economics

- Double Master's degree in Business Administration,
- Jointly supervised PhD (cotutelle).

Adam Mickiewicz University

- Nanosciences partnership,
- Double 2-year Master's degree in Physics.

Institute of Molecular Physics

- Polish Academy of Sciences*
- Chemistry partnership.

Graduate School of Banking

- Two double degrees in Economic Sciences.

INTERNATIONAL COURSES



Université de Rennes 1 provides a wide range of international courses and curriculum in English.

CURRICULUM AT THE RENNES CAMPUS

Curriculum with courses taught in English

- Master in Computer Science – Research oriented,
- International Master in Molecular Catalysis and Green Chemistry,
- Master in Physics,
- Master in Photonics,
- Master in Public Economics and Public Finance,
- Master in Business Administration in International Management,
- Master of Marketing – Franchising and Network Management,
- Master of Finance – Advanced Studies and Research in Finance,
- Master in International Human Resources Management,
- Postgraduate Certificate in International Affairs – Specialisation in European Affairs,
- "Rennes exchange programme in economics": one semester completely taught in English (3rd year of Bachelor's degree in Economics).

Japanese language and culture courses

The French-Japanese Management Centre: Master in Business Administration (MAE), Management of Japanese Companies track (available in the module "International and Bicultural Management").

Preparatory programme with French as a Foreign Language (FLE)

Economics and Management programme – two years: courses in economics and French (as a foreign language) in preparation for Master-level economics studies.



COURSES TAUGHT IN
ENGLISH

PARTNERSHIP COURSES

Université de Rennes 1 is involved, as a partner or the main coordinator, in international training networks such as European Masters, Double Degrees or Delocalised training abroad.

European Master

1) Erasmus Mundus: European Master in Materials Science Exploiting Large scale Facilities – MaMaSELF

The objective of the Materials Science Master is to build a European platform at the university level, directly connected with large-scale facilities, in order to promote collaboration between universities and industries. MaMaSELF is the result of collaboration between five European universities in the Erasmus Mundus programme.

Coordinator: *Université de Rennes 1*

Academic partners:

- **Germany:** Technische Universität München (TUM), Ludwig-Maximilians-Universität München (LMU),
- **Italy:** University of Turin,
- **France:** Université de Montpellier.

Placement and internship partners: Brazil, India, Japan, Russia, Switzerland.



2) EIT* ICT Labs Master School Information & Communication Technology (ICT) Innovation

**European Institute of Innovation & Technology*

Université de Rennes 1 offers the specialist "Distributed Systems and Services" option.

Partners:

- **Finland:** Aalto University, Åbo Akademi University, University of Turku,
- **The Netherlands:** Eindhoven University of Technology (TU/e), Delft University of Technology,
- **Hungary:** Eötvös Loránd University (ELTE) – Faculty of Information Technology, Budapest University of Technology and Economics,
- **Italy:** University of Trento,
- **Sweden:** KTH Royal Institute of Technology,
- **Germany:** Technische Universität Berlin, Saarland University, Technische Universität Darmstadt,
- **France:** Pierre et Marie Curie University (UPMC), Paris-Sud University, University of Nice-Sophia Antipolis (UNS), Institut Mines Télécom,
- **United Kingdom:** University College London.



DELOCALISED TRAINING COURSES

In order that all students benefit from internationalisation, whether or not they have the opportunity to study abroad, *Université de Rennes 1* has developed delocalised training courses: students around the world can prepare a diploma from *Université de Rennes 1* in their own country.

Cameroon

- **Université de Yaoundé II**
 - *Master in Banking and Finance,*
 - *Master in Economics, Consulting and Management,*

Ivory Coast

- **Université Félix Houphouët-Boigny**
 - *e-Miage Bachelor's degree,*

China

- **Southeast University (Nanjing)**
 - *Master in Electronics and Communications,*
 - *Master in Banking and Finance,*

Luxembourg

- **the Luxembourg Chamber of Employees,**
 - *Master in Financial Analysis and Strategy,*

Madagascar

- **Université d'Antananarivo,**
 - *Bachelor's degree in Public Administration,*

Morocco

- **Higher Institute of Applied Engineering (IGA), Morocco**
 - *Master in Strategic and Operational Marketing,*
 - *Master in Accounting, Control and Audit,*
 - *Master in Information Systems and Management Control,*

Vietnam

- **Graduate School of Foreign Trade**
 - *Master in Finance and Treasury,*
- **University of Science and Technology, Hanoi**
 - *Master in Communication Sciences,*
- **Vietnam National University, Hanoi: University of Science**
 - *Master in Medicinal Chemistry.*

A DIPLOMA FROM
UNIVERSITÉ DE RENNES 1 IN YOUR
 OWN COUNTRY





DOUBLE DEGREES

Students will graduate with a degree from the partner institution and *Université de Rennes 1*.

Germany

- **Augsburg University**
- Bachelor's and Master's degrees in French-German Business Management,
- **Friedrich-Alexander Universität (FAU)**
- Master in European Law, specialising in French-German Law,
- **Karlsruhe Institute of Technology (KIT)**
- Information Technology Mathematics and Cryptography,
- **Kiel University**
- Master in Management Sciences.

Canada

- **Université du Québec à Chicoutimi (UQAC)**
- Master in Information Systems and Management Control (SICG),
- Master in Business Administration,
- **University of Ottawa**
- Master in European Union Law and World Trade Organisation Law,
- **Université Laval (UL)**
- Master in Accounting, Control and Audit (CCA),
- Master in Information Systems and Management Control (SICG),
- **Université du Québec à Trois-Rivières**
- Master in World Economy and SMEs,
- **Master in Philosophy with international partners (tripartite)**
- Université de Sherbrooke (Canada)
- Universidade Federal do Paraná (Brazil).

China

- **Shandong University (SU)**
- Bachelor's degree in Economics and Management,
- Bachelor's degree in Economic and Social Administration,
- Master in Banking and Finance,
- Master in Public Economics and Business Management,
- and the joint doctorate programme,
- **East China University of Science and Technology (ECUST)**
- Master in Economics,
- Master in Business Sciences,
- Master in Business Management.

South Korea

- **Ajou University**
- Master in Business Administration, Bicultural International Management.

Spain

- **Universidad de Granada (UGR)**
- Master in Marketing,
- **Universidad de Oviedo**
- Bachelor's degree in Economics and Management.

Indonesia

- **Universitas Indonesia, Jakarta**
- Master in Public Economy and Public Finance.

Czech Republic

- **Masaryk University**
- Master in Business Administration,
- French-Czech Master in Public Administration.

United Kingdom

- **University of Exeter**
- Master in French-British Business Law.

Sweden

- **Linnaeus University**
- Master in Economics and Company Management.

Vietnam

- **Hue University**
- Bachelor's degree in Economics and Management.

A DEGREE FROM THE PARTNER
INSTITUTION AND *UNIVERSITÉ DE RENNES 1*



MOBILITY: FACTS & FIGURES

Bilateral exchange partnerships offer mobility opportunities towards destinations throughout the world, mainly outside Europe. *Université de Rennes 1* has developed partnerships across five continents and built strong relationships with universities in **North America, Latin America, China, Germany, United Kingdom, Poland and the Czech Republic.**

DEPARTMENTS INVOLVED IN THE INTERNATIONALISATION OF CURRICULUMS

Université de Rennes 1 provides opportunities for international mobility among:

10 EDUCATION & RESEARCH DEPARTMENTS
(Mathematics, Medicine, Law, Economics...)

2 ENGINEERING SCHOOLS AND **1** SCIENTIFIC OBSERVATORY IN ENVIRONMENTAL SCIENCES:

- ENSSAT – Applied Science and Technology
- ESIR – Engineering
- OSUR – Scientific observatory.

6 INSTITUTES, AMONG WHICH:

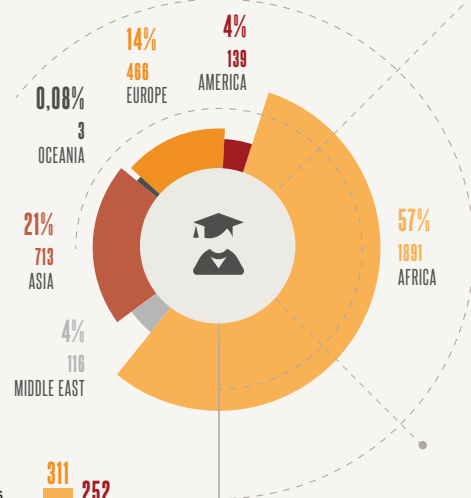
- the University Institutes of Technology (Instituts Universitaires de Technologie, "IUT"). IUT deliver two-year undergraduate vocational diplomas, leading to jobs in technical and professional supervision
- the Graduate School of Management "IGR-IAE"
- the public administration school "IPAG".

COURSES

International students

registered at *Université de Rennes 1* in 2014 - 2015

By geographical zone

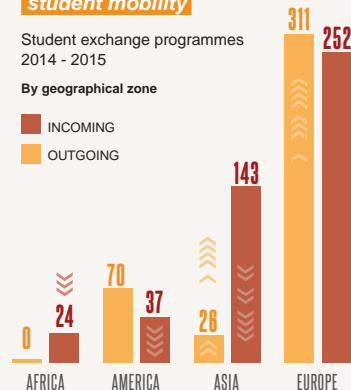


Outgoing and incoming student mobility

Student exchange programmes 2014 - 2015

By geographical zone

- INCOMING
- OUTGOING



Every year, over **900 *Université de Rennes 1* students** follow part of their university course abroad (study programmes or work placements) through programmes like Erasmus+ or bilateral agreements.

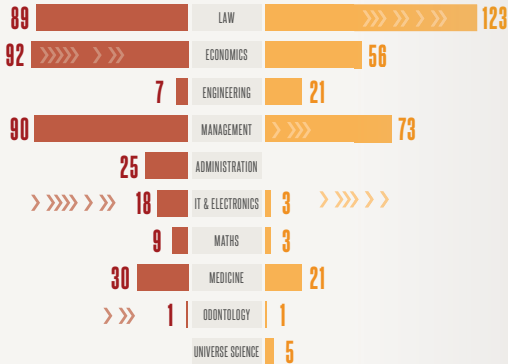
Nearly **14% of international students** enrolled at *Université de Rennes 1* are exchange students who all benefit from the tailored guidance and warm welcome offered by these partnerships, and which increases the employability of students.

Outgoing and incoming student mobility

Student exchange
programme mobility
2014 - 2015

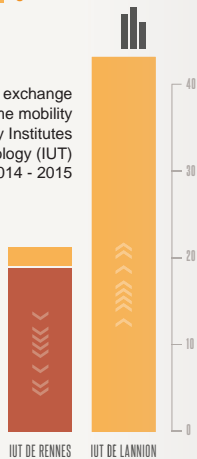
By field of study

- INCOMING
- OUTGOING



Student exchange
programme mobility
in the University Institutes
of Technology (IUT)
2014 - 2015

- INCOMING
- OUTGOING

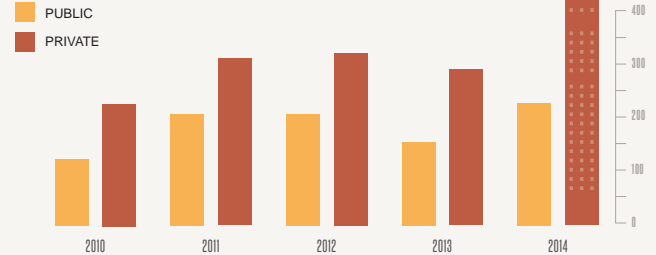


WORK PLACEMENTS AND INTERNSHIPS

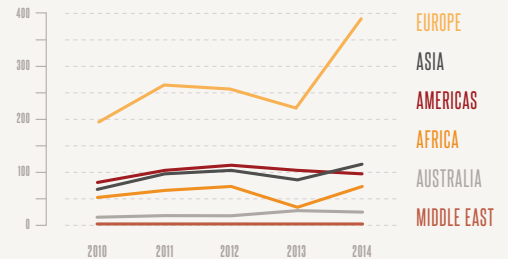
We strongly encourage our students to pursue part of their studies abroad, especially in regards to internships.

Public & private distribution
of foreign work placements abroad

By year



Evolution of work
placements abroad
By geographical zone
over 5 years

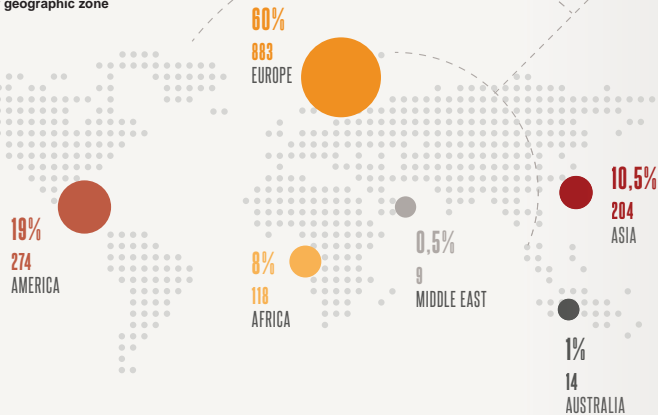


STAFF

University staff members carry out around **2,000 missions abroad every year** as part of research collaborations, training courses and participation in international events (conferences, colloquiums, seminars, congresses, etc.).

Staff missions abroad
2014 - 2015

By geographic zone



Outgoing mobility programmes towards other partner universities in Europe and beyond are available to all of our administrative staff through the Erasmus+ programme.

FOCUS ON PARTNERS BEYOND EUROPE

Université de Rennes 1 has over 155 international bilateral partnerships covering research and training:

27 institutions in Africa

(South Africa, Botswana, Burkina Faso, Burundi, Cameroon, Ivory Coast, Ethiopia, Gabon, Guinea, Madagascar, Morocco, Mauritania, Niger, Togo),

43 institutions in Asia

(Cambodia, China, South Korea, India, Japan, Malaysia, Russia, Taiwan, Vietnam),

20 institutions in North America

(Canada, United States),

39 institutions in Europe,

not including Erasmus exchanges,

23 institutions in South and Central America

(Argentina, Brazil, Chile, Colombia, Mexico, Peru),

2 institutions in New Zealand and Australia,

2 institutions in Lebanon.



Brazil

FEDERAL UNIVERSITY OF RIO GRANDE DO SUL (UFRGS) IN PORTO ALEGRE

- A Chemical Engineering Centre (PICS),
- An International Research Group (GDR1) in law, economics, geography and history "World regional integration" including an UNESCO Chair,
- Two CAPES-COFECUBs in chemistry. [CAPES: Coordination for the Improvement of Higher Education, COFECUB: French Committee for the Evaluation of Academic and Scientific Cooperation with Brazil],
- A chemistry collaboration supported by Science without Borders: Special Visiting Researcher programme (PVE),
- Four jointly supervised PhDs (cotuelles) and one co-directed PhD.

Partner in the *Erasmus + International Credit Mobility Project*

Gaborone

UNIVERSITY OF BOTSWANA

- Geosciences research partnership.

Cameroon

UNIVERSITÉ DE YAOUNDÉ II

- Two double degrees in economic sciences,
- Three international jointly supervised PhDs (cotuelles).

Canada

UNIVERSITÉ LAVAL (UL) IN QUEBEC CITY

- A Framework Agreement and various multi-disciplinary conventions in the field of training: computer sciences and electronics, life and environmental sciences, management, engineering, medicine, etc.,
- A double Master's degree in Finance, Accounting and Management Control,
- A partnership within an environmental law research network (IUCN Academy of Environmental Law),
- Research partnerships in Social Sciences research (IPEV LOTECHAIN), optronics (FOTON) and dentistry,
- Eight jointly supervised PhDs (cotuelles),
- An environmental law research network.

Partner in the *Erasmus + International Credit Mobility Project*

China

SOUTHEAST UNIVERSITY, NANJING

- An International Associated Laboratory (LIA) "Chinese-French Research Centre in Biomedical Information",
- Two double degrees: Master in Electronics and Telecommunications and Master in Economic and Financial Engineering,
- Three jointly supervised PhDs (cotuelles).



Japan

TOHOKU UNIVERSITY, SENDAI

- Material sciences partnership and research network,
- Organisation of an annual "Frontier" workshop in Material Sciences,
- Participation of Japanese lecturer-researchers in the Erasmus Mundus MaMaSELF training programme (Material Sciences).

Partner in the *Erasmus + International Credit Mobility Project*

Vietnam

INSTITUTIONS IN HANOI

Vietnam National University, Hanoi

- Off-site training courses in chemistry/pharmacy,
- Research cooperation in medicinal chemistry,
- Teaching assignments.

University of Science and Technology of Hanoi

- Master in ICT through an international partnership.

Graduate School of Foreign Trade

- Double degree in Management.

Cooperation agreements with:

Posts and Telecommunications Institute of Technology;
Graduate School of Transport and Communication.

NOTES



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