

## RECRUITMENT NOTICE / RESEARCH AND TEACHING:

### Junior Chair: "Understanding and modelling socio-ecosystems to support the sustainable development of coastal areas"



**La Rochelle Université is launching a call for proposals for a "Junior Chair" in the framework of the ExcelLR project.** This call is open to young researchers wishing to join the institution, and aims to allow them to **develop autonomously a project by giving them the opportunity to express their capacity for exploratory research and innovation.**

**The objective is to recruit a young high-level scientist proposing a research project on the scientific theme of "Understanding and modelling socio-ecosystems to support the sustainable development of coastal areas".**

- **Presentation of the university**

In a higher education and research landscape that has been profoundly reshaped for more than a decade, La Rochelle Université has chosen to structure its research around a thematic by positioning its scientific and academic strengths on societal and environmental issues. This approach has led to the creation of a teaching and research institute called the LUDI Institute, SmUCS in English (Smart Urban Coastal sustainability), operational since the 1<sup>st</sup> September 2021. Bringing together all the laboratories, all the PhD students and most of the institution's masters programmes. This institute aims to address the many scientific issues raised by the anthropisation of the coastal area by facilitating decompartmentalised and interdisciplinary approaches, based on a proactive policy of innovation and dissemination of results, without forgetting the fundamental principles of ethics and scientific integrity. The creation of the LUDI Institute is surrounded by two other important projects, namely the EU-CONEXUS European university, a network of European partner universities sharing a common speciality, and the CampusInnov site initiative, intended to establish a culture of innovation in both training and research.

- **Context: settlement strategy**

La Rochelle Université's specialisation was recognised in the framework of the PIA 4 call for Excellence projects by obtaining funding for the ExcelLR project, which will accelerate the institution's transformation process.

The ExcelLR project aims to consolidate our new university model around four key axes, all of which are centred on our area of specialisation, sustainable development in coastal areas:

#### **Axis 1: Enhancing our research specialisation**

One of the main challenges for any university is to attract talent. This is why the axis 1 will focus on increasing our attractiveness and specialisation by creating a Talent

Management Center, and launching competitive research initiatives. Finally, to further reinforce our societal and territorial impact, we will create a decision-making support system that will provide support, analysis and impact simulations based on the latest scientific developments in the field of sustainable and intelligent urban coastlines and fed by our network of observatories.

### **Axis 2: Boosting attractivity by developing specialised curricula**

In close alignment with axis 1, the university is focusing our educational efforts on the reform of master and doctoral programmes. In this context, a Graduate School is being created. It will enable us to attract the best students at national and international level.

### **Axis 3: Increase our societal impact and anchor our university in its territory**

This axis aims to create a Comm'On Lab Science and Society to support the development and monitoring of the university's projects, whether they be research programmes, educational explorations or student initiatives, in order to anchor them in a societal strategy.

### **Axis 4: Designing new steering tools and indicators**

This axis aims to build a new model of university through a major change: moving from fixed national guidelines to a specific success framework that reflects our ambition, and designing steering tools to support this new framework.

- **Research theme**

Much of the research carried out in the laboratories at La Rochelle University focuses on sustainable development in coastal areas. Every year, a large amount of data is produced as part of research projects on environmental issues. However, these data are rarely related to each other.

In order to take a more cross-disciplinary approach, steps have been taken to structure the institution and to launch a multi-disciplinary research project called Urban and Coastal Lab La Rochelle (UCLR). The ultimate aim of this project is to set up a digital platform fed by the various laboratories and dedicated to the pooling, use and development of data, models and digital tools with the aim of proposing a decision-making support system for coastal urban areas. The aim of the multidisciplinary approach is to establish links between the various fields of action, to improve understanding of the socio-ecosystems in our region and, ultimately, to help public decision-makers manage them.

Before providing decision support, it is essential to be able to understand the system and the interactions and interrelationships between its components, so as to be able to offer avenues for modelling and overall prediction of the socio-ecosystem. The candidate must therefore be able to take a holistic view of the system and understand the interactions between the various compartments (what affects what? what are the levers? what amplifies? what diminishes? according to what criteria?). It will have to look

for relevant indicators that will make it possible to measure and assess the different dimensions of a territorial problem.

Particular attention will be paid to the candidate's ability to understand and interact with other disciplines, as well as their ability to translate the issues of interactions and interrelationships.

An interest in environmental issues in coastal areas is essential, as is the ability to look ahead 5 to 10 years, with a view to ultimately creating a digital twin of the coastline and decision-support mechanisms to understand and model the socio-ecosystems of coastal areas and support their sustainable development.

The candidate will work closely with the UCLR team and the La Rochelle Territoire Zéro Carbone team (TERREZE platform).

Key words: Interdisciplinarity, Modelling, Interaction, Semantic representation, Complex systems, Coastline, Environment, Anthropised coastal city

*The research theme is voluntary described in an open and multidisciplinary way so that several disciplines can be involved.*

#### • Job description

The Junior Chairholder will have to carry out his/her research project within a laboratory of La Rochelle Université in a collaborative and multidisciplinary logic. The impact of the research and the openness to society must be sought in particular through the creation of cooperation networks and the response to ambitious calls for projects.

The Junior Chairholder will also be required to carry out 64 hours of teaching and will be involved in a teaching department with a view to pedagogical innovation and the internationalisation of training.

Research mission :

- Conducting research activities and monitoring the progress of work in conjunction with the Laboratory Management
- Development of research tools and methodology
- Drafting and dissemination of research results through appropriate channels, including open access
- Development of national and international cooperation networks
- Monitoring, response and management of various national, European and international calls for projects

Teaching assignments

- Development and implementation of courses
- Assessment of learning outcomes and participation in juries
- Participation in the work of the teaching team in connection with the relevant teaching department

Cross-cutting tasks :

- Conducting collective projects
- Participation in scientific mediation activities
- Supervision (trainees, doctoral students, post-docs) and leadership of research teams
- Participation in the management of human and administrative aspects with the support of dedicated staff.
- Participation in the various bodies of the laboratory and of La Rochelle Université in general

## • Profile description

The candidate holds a doctorate related to the research theme and has between 2 and 5 years of research experience after the PhD, including at least 2 years outside La Rochelle Université. His/her professional career demonstrates an international dimension with significant experience of mobility abroad.

The candidate will have to bring a research dynamic based on a disciplinary richness while having a will of opening and decompartmentalising. He/she has already published a number of papers attesting to his/her scientific excellence in his/her discipline. He/she is able to respond to national, European and international calls for projects. Commitment to the supervision of trainees and PhD students will be particularly appreciated.

The candidate has experience in setting up teaching courses. He/she will assume pedagogical or administrative responsibilities related to the courses. He/she will be able to take charge of the pedagogical organisation of the courses he/she will deliver, by developing an innovative pedagogy and by participating in the international opening of the courses.

## • Research project

The applicant must submit an original, high-level scientific project focusing on understanding and modelling socio-ecosystems to support the sustainable development of coastal areas. The scientific description of the project should show to what extent it will produce new knowledge that will help to better understand and shed light on current challenges in terms of the sustainability of coastal areas.

Particular attention will be paid to aspects relating to open science and to the dissemination and valorisation of results, in particular to the transmission of knowledge to the citizen through actions to disseminate scientific culture and/or to the transfer of results to socio-economic actors by describing its innovation potential. The impact of the project could also be considered in terms of support to public policies carried out in coastal areas.

Applications will be assessed on the basis of the following criteria:

- Scientific background, achievements and international recognition of the applicant;

- Quality and scientific originality of the project;
- Relevance of the content to the scientific priorities of the University;
- Capacity to obtain additional funding;
- Prospects for the continuation of the research topic in the medium and long term;
- Dissemination of project results;
- Scientific and socio-economic benefits.

## • Working environment

### **Type of recruitment:**

The maximum duration of the Chair will be 4 years, at the end of which the Chairholder will be evaluated.

The recruitment will be made on a fixed-term contract as a Contractual Teacher-Researcher (3-year fixed-term contract, renewable for 1 year), with a teaching service of 64 hours.

At the end of the Chair, the opportunity to be recruited to a permanent position may be open through the usual channels (competition for a teacher-researcher position with competition and selection by a committee, or permanent contract).

Remuneration to be defined according to profile and experience in accordance with the university's contract staff management charter.

Location: La Rochelle Université - 23 avenue Albert Einstein - 17000 LA ROCHELLE and according to the laboratory of assignment.

### **Operation and equipment:**

The position is surrounded by funding from the institution for mobility and recruitment to post-doctoral or doctoral positions.

It is strongly recommended that the application be accompanied by one or more co-financing arrangements, whether already in place, applied for or envisaged. A detailed budget with income and main expenditure items must be provided (see application file).

### Funding granted by the University:

- 45,000 € for environment and mobility
- 24 months of post doc or 36 months of PhD (depending on the needs explained in the project)

## • Project selection procedure

A first review of the projects will be carried out by a panel of external evaluators. A pre-selection will be made by the ExcellR Governing Board.

A selection committee will organise the auditions and establish a ranked list of successful candidates.

- **Application procedure**

Applicants are expected to contact the laboratory and department concerned with the proposed research and teaching project.

An application file must be completed with the proposed research and teaching project, written in French or English; the doctoral diploma, detailed CV and application form.

**For any questions, please send an email to [excellr.recherche@univ-lr.fr](mailto:excellr.recherche@univ-lr.fr)**

**Applications must be submitted on DEMATEC before 15/10/2023**

- **Provisional timetable**

Opening date of the call: 20/07/2023

Closing date of the call: 15/10/2023

Evaluation and pre-selection of applications: mid-October to November 2023

Hearing of applicants on shortlisted projects: November/December 2023

Start date: January 2024 at the earliest

## Contact details of the research laboratories of La Rochelle Université.

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| <b>CEBC (UMR7372 LRUUniv-CNRS)</b><br>Centre for Biological Studies of Chizé<br><a href="https://www.cebc.cnrs.fr/">https://www.cebc.cnrs.fr/</a>  | Director:<br>Charles-André BOST                  |
| <b>CRHIA</b><br>Research Centre for International and Atlantic History<br><a href="https://www.crhia.fr/">https://www.crhia.fr/</a>  | Director:<br>Cécile CHANTRAINE BRAILLON          |
| <b>D2IA</b><br>Asian Dynamics, Interactions, Interculturality (ACA2K)<br><a href="https://dzia.fr/">https://dzia.fr/</a>   | Director:<br>David WATERMAN                      |
| <b>L3i</b><br>Computer, Image and Interaction Laboratory<br><a href="https://l3i.univ-larochelle.fr/">https://l3i.univ-larochelle.fr/</a>  | Director:<br>Yacine GHAMRI-DOUDANE<br>MOHAMED    |
| <b>LaSIE (UMR 7356 LRUUniv - CNRS)</b><br>Laboratory of Engineering Sciences for the Environment<br><a href="https://lasie.univ-larochelle.fr/">https://lasie.univ-larochelle.fr/</a>                                    | Director:<br>Xavier FEAUGAS                      |
| <b>LIENSs (UMR 7266 LRUUniv - CNRS)</b><br>Littoral, Environment and Societies<br><a href="https://lienss.univ-larochelle.fr/">https://lienss.univ-larochelle.fr/</a>  | Director:<br>Valérie BALLU                       |
| <b>LITHORAL</b><br>Interdisciplinary Laboratory Territory History Organisation Regulation Law  | Director:<br>Guillaume DELALIEUX                 |
| <b>MIA</b><br>Mathematics, Image and Applications<br><a href="http://mia.univ-larochelle.fr/">http://mia.univ-larochelle.fr/</a>   | Director:<br>Catherine CHOQUET                   |
| <b>NUDD</b><br>Digital uses for sustainable development  | Director:<br>Jeanne LALLEMENT                    |
| <b>PELAGIS Observatory (UAR 3462 LRUUniv-CNRS)</b><br>Observatory for the conservation of marine mammals and birds.<br><a href="https://www.observatoire-pelagis.cnrs.fr/">https://www.observatoire-pelagis.cnrs.fr/</a> | Directors :<br>Florence CAURANT and Jérôme SPITZ |

## Contact details of the educational departments of La Rochelle Université.

### Biology Department:

Director: Gilles RADENAC

### Biotechnology Department:

Director: Stéphanie BORDENAVE

### Chemistry Department:

Director: Fernando PEDRAZA-DIAZ

### Civil Engineering Department:

Director: Ameer HAMAMI

### IT Department:

Director: Jacques MORCOS

### Mathematics Department:

Director: Cyrille OSPEL

### Earth Sciences Department:

Director: Vivien MATHE

### Department of Applied Foreign Languages:

Director: Cécile CHANTRAINE BRAILLON

### Department of Humanities:

Director: Tatiana CLAVIER

### Humanities and Social Sciences Department:

Director: Pierre PRETOU

### Physics Department:

Director : Philippe REFAIT

### Department of Law and Political Science:

Director: Linda ARCELIN

### Department of the School of Management:

Director: Jean-François BERTHEVAS / Mathieu PAQUEROT



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Scientific partners of the ExcellLR project



Public partners of the ExcellLR project

