

#18  
August  
2023



Re-UNITA

RESEARCH  
Newsletter

## Editorial

After the summer break, we are heading into the final year of this exciting project. We have been working hard to implement the activities that develop the Re-UNITA roadmap while trying to help our universities and our researchers through new actions and the development of new networks.

I would like to point out several actions that are just open for the UNITA community. First, a reminder that the database of shared research infrastructures is online and that the use of these infrastructures may represent a very interesting opportunity for researchers, especially PhD students, to perform high-end measurements at low cost while expanding the network of collaborators.

The improvement of the recruitment of researchers by open, transparent and merit-based procedures is being analysed in our universities through the HRS4R strategy, which also helps to improve the working conditions of our researchers. Gender equality in research is one of the issues that is being strongly supported through our mentoring programmes.

The PhD International Talent Challenge is also open right now, looking for the best innovative proposals presented by teams of PhD students from each of the universities in each of the three main scientific areas of the UNITA Alliance: Renewable Energy, Circular Economy and Cultural Heritage. The contest will award a motivating prize in each of these areas.

Finally, we are working to bring research and its transfer closer to society, through actions related to the promotion of entrepreneurship or through the active participation of our universities in joint actions with NGOs and local administrations. In this sense, the participation of Re-UNITA in the Researchers' Night, which will take place this September, is one of the most motivating and desired actions of the year. Let's do it!

J. Ignacio Garcés Gregorio

Director of the International Research Projects Secretariat  
Vice-Rectorate for Science Policy

## Cultural Heritage



### Cultural Heritage and Environment - thinking ahead and moving forward

In 2022, the University of Turin (P.I Damiano Cortese) and the Université de Pau et des Pays de l'Adour (P.I. Emilie Guyard) obtained a couple of grants to build a research project focusing on environmental cross-boundary cultural heritage. As the project develops, the team were able to meet in Turin last May and to plan a summer school on sustainable tourism at Sant'Anna di Valdieri (CN). It will be followed by a conference to be held at UPPA (19-20 October) entitled: "Beyond crisis: cross-boundary environmental cultural heritage: challenges, perspectives and opportunities."

## Circular Economy



### GEOT (Territorial Planning Study Group. University of Zaragoza) Chair Territory, Society and Geographical Visualisation Department of Geography and Spatial Planning

Different projects with the Zaragoza City Council for the optimal use of municipal information to provide the population with knowledge and favour decision-making. The objective is to unify urban planning and social information through a single territorial indicator per portal. It will improve urban management, social services and the assessment of social vulnerability.

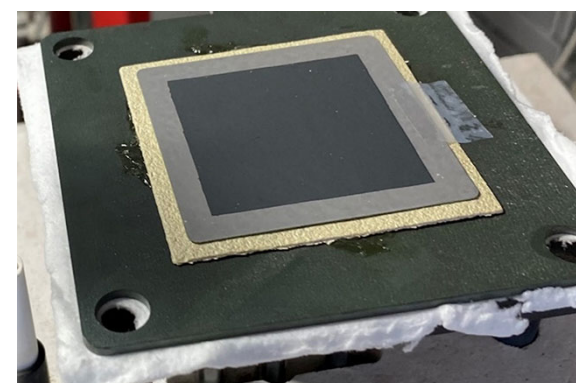
Quality information by analysing the proximity of services (the fifteen-minute city).

[https://www.zaragoza.es/sede/portal/conoce-explora-zgz/historias/15\\_minutos](https://www.zaragoza.es/sede/portal/conoce-explora-zgz/historias/15_minutos)

Repository of socio-demographic maps to know in detail the characteristics of the city of Zaragoza, linking data from the municipal census with the city's urban planning bases.

[https://www.zaragoza.es/sede/portal/conoce-explora-zgz/mapas/servicio/visor-interactivo/explora?fq=temas\\_smultiple%3A%28%22Sociedad+y+Bienestar%22%29](https://www.zaragoza.es/sede/portal/conoce-explora-zgz/mapas/servicio/visor-interactivo/explora?fq=temas_smultiple%3A%28%22Sociedad+y+Bienestar%22%29)

## Renewable Energies



### Development of a 2 kW high temperature electrolyser (SOEC)

H2V2103001, Planes Complementarios CCAA-CSIC, MICINN. 19/11/2021- 18/11/2024. 983.584 €.

Although green hydrogen is a versatile energy carrier that will play a fundamental role in achieving the decarbonisation objectives to which Spain and Europe has committed, a significant R&D effort is still needed for it to be considered as an economically viable alternative.

In order to develop a 2 kW SOEC system, which is the main objective of this project, we have vast experience from the INMA group on the development of planar and tubular standard SOEC cells, which they have been developing at laboratory scale during about 20 years. The reported SOEC performance of their cells are among or superior to the state-of-the-art electrolysers described in the literature, as a consequence the main challenge will be first to scale up the cells currently developed in the laboratory (size of about 1 cm<sup>2</sup>) to bigger lengths suitable for the fabrication of a first prototype stack (cells of about 5x5 cm<sup>2</sup> in size). Researchers: Miguel A. Laguna-Bercero (coordinator, [miguel.laguna@unizar.es](mailto:miguel.laguna@unizar.es)) Rosa Merino, Alodia Orera and Ángel Larrea.

More information: PTI+TransEner:

<https://pti-transener.csic.es/desarrollo-de-electrolizadores-de-alta-temperatura-soec/>

## PhD student of the month



**Romain Routier, PhD student in Law**  
University of Pau et des Pays de l'Adour, (France, ED 481), TREE, UMR 6031

Romain Routier has been working for three years as a PhD student on the circular economy theme, focusing specifically on the degree of integration of the circular economy into public procurement. The aim of the research is to analyze to what extent public purchasers can integrate circular considerations into their contracts governed by the 2014 European directives. On one hand, the thesis establishes that the development of the circular economy is facilitated by contract documents and collaboration. On the other hand, the study shows that the relationship can be even closer, as some entirely circular public contracts exist—these contracts solely aim to meet the circular needs of contracting authorities."

Romain Routier's profile on Orcid :

<https://orcid.org/0000-0003-4722-1110>

Romain Routier's profile on LinkedIn :

<https://www.linkedin.com/in/romain-routier-9b162517a/>

For a summary presentation of the project (oct. 2021) :

<https://hal.science/hal-03641252v1>

<https://tree.univ-pau.fr/fr/index.html>

## Woman researcher of the month



**Ana Clara Cristóvão** obtained her PhD in Cell Biology, Neuroscience field, from the University of Coimbra after performing her PhD work at Weill Cornell Medical College, USA. In 2011 she joined, as Associate Researcher, at Burnett School of Biomedical Sciences, University of Central Florida, USA. In 2013 she became a researcher at the University of Beira Interior (UBI) to continue her research in the development of new therapies for Parkinson's Disease. In 2020 she spin-off her research by founding NeuroSoV ([www.neurosov.com](http://www.neurosov.com)) a start-up dedicated to developing innovative therapy for neurological disorders. Recently, NeuroSoV received the Woman in Tech European award. UNITA is a strong supporter of Ana's research and NeuroSoV strategic plan. Ana collaborates with several research groups from University of Turin (UniTO), and under UNITA financial support has received at UBI researchers from Neuroscience Institute Cavaliere Ottolenghi (NICO) of UniTO, to exchange knowledge. Recently NeuroSoV received the Re-UNITA Proof-of Concept award to scale-up the studies to Amyotrophic lateral sclerosis pathology in collaboration with Dr. Boido from the NICO."

<https://www.linkedin.com/in/ana-cristovao-92467831/>

## Highlights

### UNITA PhD International Talent Challenge 2023/2024

As part of Re-UNITA, an international competition was launched to promote an innovative attitude and recognize talent among early-stage researchers. The contest is open to PhD students enrolled in any PhD Program of Re-UNITA Universities.

More info: <https://univ-unita.eu/Sites/unita/en/Evento/1365>.

Registrations are open until 30<sup>th</sup> of October.

### Infrastructure of the Month:

SAL\_General Research Support Service

<https://sai.unizar.es/>

It is a service of the University of Zaragoza and it offers scientific and technical support for research. Many of its equipment and services can be requested through the ReUNITA project, with financial support from the project.

As example: Glass Blowing Service

<https://reunitaresearchinfrastructure.i3a.es/en/node/35>

Researchers interested in using this infrastructure can benefit from a grant.

More information and contact details at this link:

<https://reunitaresearchinfrastructure.i3a.es/en/faqs>

Contact: [reunita@univ-pau.fr](mailto:reunita@univ-pau.fr) | Website: <http://univ-unita.eu>



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