



SCIENCE IN MOTION

YOUR MONTHLY CERENA NEWS

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Note to the community

A message from the President

Science becomes truly relevant when its outcomes are shared with the community and generate a positive impact on industry, policymakers, and society. While this may sound like a commonplace, our community takes this responsibility seriously. Across Europe, the last Friday of September is dedicated to celebrating science. On this occasion, researchers open the doors of their laboratories and research centres to engage directly with the public. The European Researchers' Night is a landmark event in our calendar, and each year the CERENA community joins forces to raise an already high standard. The 2026 edition of the European Researchers' Night marked our largest participation to date. CERENA was present in three different municipalities, Oeiras, Lisbon, and Porto, delivering seven activities across multiple venues. Through these initiatives, we showcased the importance of our main scientific domains and shared our research with people of all ages.

As mentioned in previous texts, one of CERENA's defining characteristics is its strong connection to industry and its commitment to transforming laboratory research into products, processes, and technologies that create real-world value. This effort, combined with our continuous investment in research support infrastructure, has now been rewarded with our first coordination of an EIC Pathfinder Open consortium. This prestigious programme of the European Commission aims to convert excellent science into breakthrough technologies with the potential for significant societal and economic impact.

We acknowledge and deeply appreciate the dedication of all colleagues involved in these achievements. Their work exemplifies the excellence, commitment, and collaborative spirit that define our community, and we are confident that it will inspire many others in the years ahead.

Leonardo Azevedo

September highlights

CERENA receives delegation from São Tomé and Príncipe, Guinea-Bissau and Cape Verde to discuss environmental sustainability

CERENA, at Instituto Superior Técnico hosted, from **20th to 22nd July 2026**, the third meeting of the Directive Committee of the **GEF ISLANDS Atlantic** Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (SIDS) Project. The meeting included government representatives from Cape Verde, Guinea-Bissau and São Tomé and Príncipe, and international partners to evaluate the project's progress and define strategic priorities for the next stages.



IST-ID is one of the execution agencies of the project, in partnership with Basel and Stockholm Conventions Regional Centre located in Senegal (BCR-SCRC Senegal). At Técnico, the project is hosted at CERENA, with the activities being coordinated by Maria João Pereira and Helga Jordão.

ISLANDS main goal is to support the three countries in the environmental management of their chemical and hazardous waste, favouring the circular economy. The project, which began in 2024 and is expected to end in 2028, is funded by the Global Environment Facility (GEF) and is implemented by the United Nations Environment Programme (UNEP). The meeting that took place at Técnico was chaired by Per Infali Cassamá, a focal point of the project in Guinea-Bissau and Director of the Service of Waste Center and Chemical Products.

September highlights

The meeting also counted on the attendance of Nilda Borges da Mata, Minister of Environment, Youth and Sustainable Tourism of São Tomé and Príncipe, Vania Cassamá, chief officer of the Environment and Climate Action Minister, and the focal national points in Cape Verde, Lisdália Moreira, and São Tomé and Príncipe, Emílio Fernandes Lima. Representatives of the Green Growth Knowledge Partnership (GGKP) and the Secretariat of the Convention of Basilea, Rotterdam and Stockholm were also present. The Secretariat of GEF and the Organization of United Nations for Food and Agriculture (FAO) joined the meeting online.

During the two-day meeting, the participants analyzed the global progress of the project and defined the strategy for the next stages, taking into consideration the **challenges of implementing the activities in the different countries** and the **increase in cooperation between the project's partners**. Maria João Pereira and Helga Jordão presented the work in progress regarding the development of a Portuguese training program about multilateral environmental agreements, the support for the management of electrical equipment and vehicle waste, and the evaluation of the lifecycle of chemical waste products to be implemented in the three countries. The program was finalized with a technical visit to Ambigroup, in Seixal, which allowed the participants to see the management and valorization of waste in Portugal and discuss their implementation in their respective countries.



September highlights



CERENA Seminar

On **24th September, 2026**, CERENA began its 2026-2027 seminar series. During this series, we will be looking at *Present and Future Challenges in Natural Resources and Environmental Research*.

This new series began with Engineer Jaime Puna, a member of the board of Directors of the Port of Sines and Algarve, invited by João Gomes, Energy Group Coordinator. The seminar focused on *Sustainable Energy in Port Infrastructure: A roadmap with strategic opportunities and challenges*. Jaime took this opportunity to highlight the international routes passing by Sines port, while explaining the work of the port and the actions that are being implemented for a more sustainable energy transition.



September highlights

European Research Night

On **25th September 2026**, CERENA was present at European Research Night in different spaces across Lisbon and Porto. In this initiative, which brings science and society closer together, CERENA's researchers highlighted their projects on sustainability, paleontology, strategic minerals, and climate change.

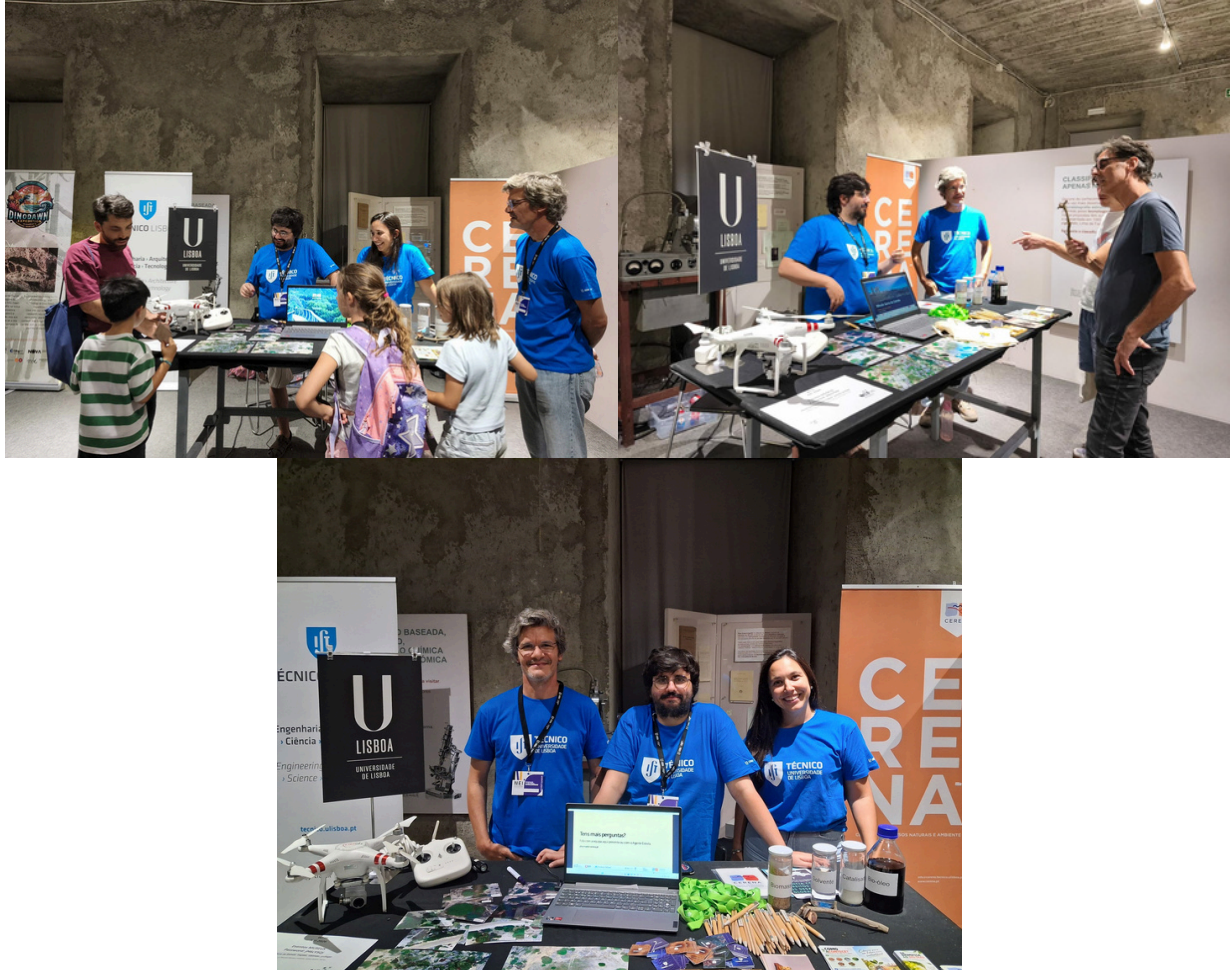
Rui Galhano, Rida El-Bardai, Salma Dehhaoui, Yasmine Andrade, Luciana Silva, Beatriz Barrocas, Rita Serôdio, António Mariquito, Tuğçe Demir, Rafaela Marques, and Mónica Loureiro were at Oeiras for the activity ***From Biomass to Value: Science that transforms waste into resources***, where participants learned how plant, forest, and agroindustrial resources can be transformed into high-value products.



Manuel Ribeiro, Vasco Miranda, and Raquel Gonçalves were present at Lisbon's Museum of Natural History with the activity ***Serra da Estrela Mission: mapping, valuing and protecting***, where participants engaged with a game to learn which plant species can be used for the production of bio-oil and new pharmaceutical drugs.

September highlights

European Research Night



Bruno Camilo, was also present at the Museum, with the activity ***Paleontology and deep time: a look at the ecosystems of the past to understand the present and predict future models***, where participants learned the importance of paleontology in understanding Earth's environmental evolution over time.



September highlights

European Research Night

Abeer Mohtar, João Fortunato and José Pires were present at Pavilhão do Conhecimento with ***Clima Tic Tac***, a board game that teaches participants the adverse effects of pollution on planet Earth. Ricardo Araújo was also present at Pavilhão do Conhecimento, where he promoted his upcoming bird-annotation contest – Técnico Nightjar Annotiathon.



Cristina Vila, and Gonçalo Pereira were present at i3S, Porto with the activity ***Circular Challenge and Strategic Minerals***, where the participants played a game focused on strategic minerals to gain a better understanding of mineral extraction.



Yaru Xue and the collaboration between CERENA and China (CUPB)

CERENA hosts a collaborative laboratory, Joint Research Institute for Climate and Energy, with the China University of Petroleum-Beijing (CUPB). This laboratory takes advantage of **spatial data science and artificial intelligence to improve the understanding of Earth's complex systems, including climate and energy resources**. As a result of this collaboration, members of the CUPB have visited CERENA over the last few months.

This month, we highlight Yaru Xue, a visiting professor, who is doing a three-month sabbatical period at CERENA. **Yaru is an expert in Intelligent Information Processing** and is currently working in close collaboration with Leonardo Azevedo to apply artificial intelligence to predict subsurface information, taking advantage of entropy data. Besides her focus on her research work, Yaru is using this period to learn about new technology, focusing on the geostatistics class taught by Maria João Pereira.

From her stay in Lisbon, Yaru highlights the **hospitality at Técnico**, which will be key for the exchange of more Chinese students in the upcoming years. Yaru also expresses the wish to receive CERENA's students at CUPB, highlighting the integration of AI with petroleum and energy sciences, which provides a strong platform for innovative research, something that CERENA also encompasses in their values.

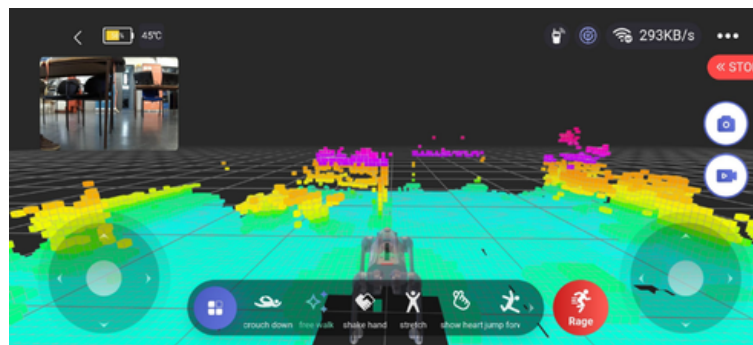


Can robots and drones preserve and help study dinossaur footprints?

Miguel Oliveira, a master's student of Ricardo Araújo (co-supervised by Alberto Vale from Instituto de Plasmas e Fusão Nuclear, IPFN), is developing an approach to combine different data acquisition technologies, 3D modeling, and georeferencing to study dinosaur footprints.



The work takes advantage of LiDAR data acquired by Rocky, CERENA's robot quadruped, and photogrammetry data obtained by a DJI Phantom 4 Pro drone. At the end of August, the equipment was taken to the field in São Martinho do Porto and Praia Azul, in Santa Cruz. In collaboration with the Natural History Society, footprints in Pedras Negras and Serra de Mangues were studied. The drone proved to be effective in autonomous flights, while Rocky showed some limitations in sloping fields.



Operation of quadruped robot Rocky and the generated data cloud.



The field (right image) and the created model (left image)

CERENA researchers participate in scientific conferences

During the month of September, CERENA's researchers participated in several scientific conferences. Between 31st August and 4th September, the **23rd International Sol-Gel Conference** took place at Instituto Superior Técnico. The conference reunited researchers in inorganic and organic-inorganic hybrid materials developed through sol-gel. Marta Loureço presented *Hybrid MICROSCAFS®-Zr MOF composites for solar-driven wastewater purification*. Ana Clara Marques, Lucas Marcelino, António Aguiar, Beatriz Barrocas and João Loureço were part of the organizing committee.

Tânia Frade Costa, Marta Bordonhos, Rosana Pinto, Miguel Teixeira, and Moisés Pinto presented their work at the **XLIV Iberian Meeting on Adsorption** (44RIA), which took place between 6th and 9th September in Alicante. Rosana and Marta gave oral presentations about their work, while Tânia, Miguel and Moisés presented posters, with Miguel and Moisés showcasing the most recent advances in the SIMIACCI project.



Bárbara Fonseca participated in the **IX Ibero-American Congress of Physical and Environmental Chemistry**, where she was awarded **Best Oral Communication**. Her presentation focused on geochemical characterization and evaluation of the environmental risks at the abandoned Pintor mine.



Community news

CERENA's researchers Raquel Pereira, Luciana Silva, Joana Madeira, Sofia Aparício, Tuğçe Demir, Salma Dehhaoui, Ana Raquel Gonçalves, Rafaela Tenera Marques, Tânia Frade Costa and Rui Galhano presented their work at the **11th IUPAC International Conference on Green Chemistry**. The conference, which took place in Lisbon from 8 to 12th September 2026, aimed to connect junior and senior researchers working on Green Chemistry.



This was a great opportunity for CERENA's researchers to showcase results across different projects, including residue valorisation, thermochemical conversion, green solvents, polymer recycling, sustainable materials, catalysis, and CO₂ conversion.

Between 16th and 18th September 2026, Abeer Mohtar, João Fortunato and José Maria Pires were present at the **Cape Forum Conference** (Salamanca, Spain). Abeer and José presented posters regarding their work on the decarbonization of the industry, while João gave an oral presentation.





Community news

Manuel Francisco Pereira promotes visit to GeoLab

On **13th September 2026**, Manuel Francisco Pereira promoted a visit to CERENA's GeoLab, as part of the Open House Archeology. This was an opportunity for the public to explore CERENA's facilities.

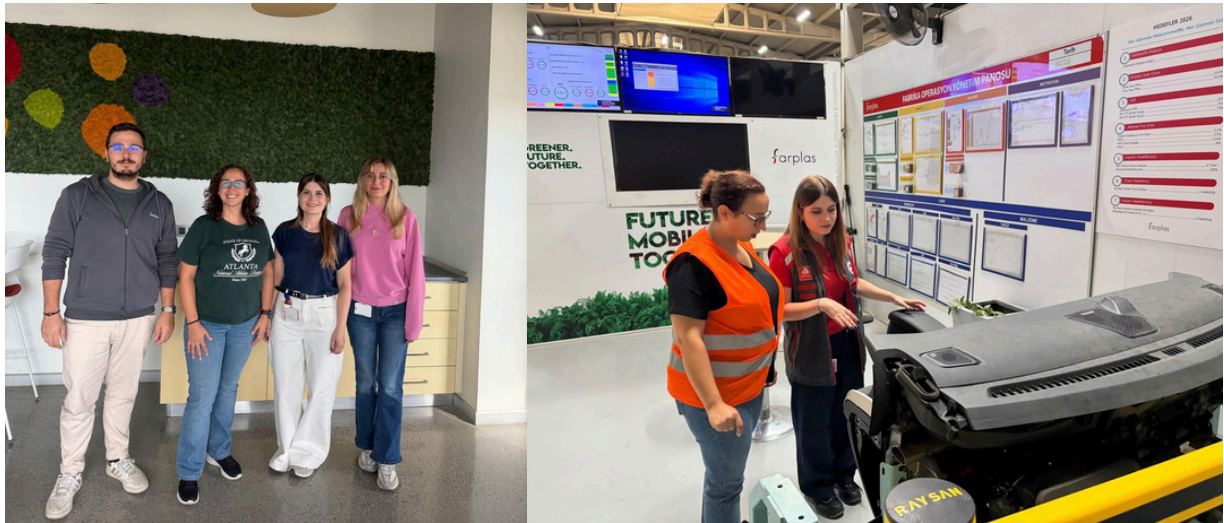


Amélia Dionísio passes her Aggregation Examination

On **23th September 2026**, Amélia Dionísio successfully passed her Aggregation Examinations.

Tânia Frade Costa participates in Talent Pass Secondment

From **September 14th to 25th**, Tânia Frade Costa was at Farplas in Turkey as a secondee of the Talent Pass project. During these two weeks, she had the opportunity to closely observe the industrial production of automotive parts for many car brands, enriching her knowledge of thermoplastics and elastomers and how to make the automotive sector more sustainable without losing the material's mechanical properties.



PhD Defenses



On **18th September 2026**, Filipe Figueiredo defended his PhD, entitled *Recovery of Rare Earth Elements from CRT Phosphors and NdFeB magnets – from lab to pilot unit*. Filipe was supervised by José Sardinha and João Bordado. **Congratulations Filipe!**

On **24th September 2026**, Housameddin Mohamed A Sherif defended his PhD, *From Oil to Heat: Repurposing Abandoned Wells for Geothermal Energy in the Volve Field*. Housameddin was supervised by Amílcar Soares and Gustavo Paneiro. **Congratulations Housameddin!**





Note to the community

All members are kindly invited to share any news, events, PhD and master's thesis defenses, and project meetings with the Communication Office, which will later post them on CERENA's social media.

The new papers will be reposted by CERENA on LinkedIn from the members' personal pages. For this, we kindly ask you to tag CERENA when doing your LinkedIn post.

All members are kindly reminded that any publications, presentations, papers, or other dissemination materials should acknowledge CERENA as follows:

- **CERENA** – *This work was financially supported by: UID/04028/2025 (<https://doi.org/10.54499/UID/04028/2025>) of the CERENA – Research Center for Natural Resources and Environment, funded by Fundação para a Ciência e a Tecnologia, I.P./ MECI through the national funds.*
- **When using equipment from PRR** – *This work was financially supported by: UID/04028/2025 (<https://doi.org/10.54499/UID/04028/2025>) and UID/PRR/04028/2025 (<https://doi.org/10.54499/UID/PRR/04028/2025>) of the CERENA – Research Center for Natural Resources and Environment, funded by Fundação para a Ciência e a Tecnologia, I.P./ MECI through the national funds.*
- **When using equipment from PRR2** – *This work was financially supported by: UID/04028/2025 (<https://doi.org/10.54499/UID/04028/2025>) and UID/PRR2/04028/2025 (<https://doi.org/10.54499/UID/PRR2/04028/2025>) of the CERENA – Research Center for Natural Resources and Environment, funded by Fundação para a Ciência e a Tecnologia, I.P./ MECI through the national funds.*
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Pre Award



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EXPRESSION OF INTEREST - EoI

Researchers interested in applying to calls for competitive funding are requested to **complete the Expression of Interest (EoI) online form provided by CERENA Pre-Award Office**. The submission of the EoI enables the Pre-Award Office to anticipate upcoming applications, ensure adequate planning, and activate the necessary support actions. **The collected data supports mandatory annual reporting and informs the distribution of the CERENA annual funds.**

Funded Projects

The preliminary results of the FCT Individual Call to Scientific Employment Stimulus - 8th Edition have recently been announced. This year, CERENA is pleased to have 3 researchers selected for funding, highlighting the quality of their research achievements.

Mónica Loureiro's (BIO2BOND) and **Omri Gadol's** (SED2SEA) proposals were supported by the Pre-Award CERENA (PAC), and submitted under the "Materials Engineering and Nanotechnology" and "Environmental Sciences" evaluation panels, respectively.

Rafael Amoedo's proposal was submitted under the "Chemical Engineering" evaluation panel. The PAC actively supported 7 out of the 10 submitted proposals with CERENA as Host Institution, achieving an internal success rate of 43%.

This distinction secures a three-year contract, enabling the researchers to further strengthen their scientific careers while contributing to CERENA's research excellence. The researchers' success reflects their individual dedication and merit, as well as CERENA's reputation as Host Institution for high-level research.

Congratulations to Mónica, Omri and Rafael for their remarkable achievements!



Pre Award

Applications for funding



In September, CERENA researchers' engagement in international programmes led to the submission of 7 collaborative proposals (6 Horizon Europe) funded by the European Commission. These submissions have the potential to secure over €3 million in funding and demonstrate CERENA's researchers' continued commitment and strategic engagement in achieving competitive funding through international partnerships.

Additionally, CERENA researchers supervised 8 proposals submitted to the MSCA – Postdoctoral Fellowships call. These submissions reinforce CERENA's active engagement in international collaborations and attraction of talented researchers.



Upcoming

29/10

CERENA Seminar hosted by Professor João Gomes

IST C13 | FEUP F405

13/11

Técnico Nightjar Annotiathon

Técnico Innovation Center

26/11

CERENA Seminar hosted by Professor Rui Galhano

IST C13 | FEUP F405

Do you want to share anything with the community in the next newsletter? Fill in the communication form at [CERENA's website](#).



20 YEAR
EDITION
#9

OCTOBER 2026



Thank you for reading! Stay tuned for more updates in our next newsletter.



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