



stayCERENA – Newsletter January 2025

December in a nutshell

December 2nd, 2024 | the [Int’l Conference on Bioinformatics and Biomedicine](#) took place at the Técnico Congress centre, bringing together 400 world experts.

December 2nd-6th 2024 | Bubble Creative Studio visited our facilities in Lisbon and Porto to record an episode of the TV program **CNN-INOVAÇÃO** about the research done at CERENA. The episode is expected to air in the next few months on [CNN PORTUGAL](#).

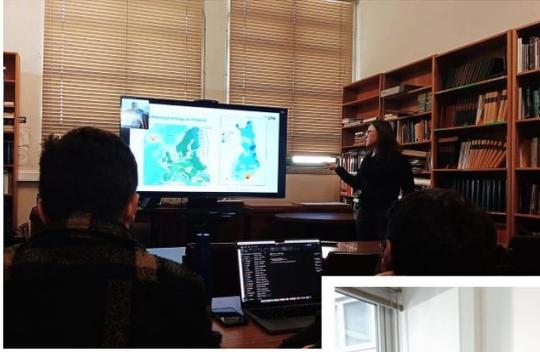
December 3rd 2024 | SciComm Office visited CERENA-FEUP to meet the members, talk about science communication, and follow the recording of CNN-INOVAÇÃO.

December 5-6th 2024 | the [14th Groundwater Seminar](#) took place at the Universidade Lusófona in Lisbon, with the participation of Prof. José Manuel Marques and Prof. Maria Paula Mendes.

December 5-8th 2024 | the [37th International Fair of Minerals, Gems, and Fossils](#) was held at the National Museum of Natural History and Science in Lisbon, with the participation of DER and CERENA.

December 11th 2024 | Marta Cyz from Geological Survey of Finland gave a talk about Exploration Seismics for geothermal and mineral resources.

December 19th, 2024 | CERENA Seminar by Vasco Miranda “**Mapping and monitoring vegetation of the Antarctic Peninsula**”. Lots of questions and interest from all participants.



New year, old tasks

Yearly indicators for integrated members

As we've done in previous years, we're reaching out to ask for your help. We need to gather all the activities we've accomplished in 2024 for our **annual report** to FCT. Please take a moment to fill out the **online forms** in the restricted area regarding oral communications, outreach activities, patents, completed MSc/PhD theses, and awards. Your input will also help us calculate our yearly indicators. Thanks so much for your contribution!

The image shows a screenshot of the CERENA website's login page and a sidebar menu. The login form includes fields for 'Email address*' (containing 'francescoturco@tecnico.ulisboa.pt') and 'Password*', with a 'LOGIN' button below. A sidebar menu titled 'Restricted Area Report' lists various categories like 'Communication', 'Logos', 'Newsletters', 'Procedures', 'Regulations', 'Scientific Council', 'Executive Committee', 'Coordination Board', 'CERENA Statutes (PT only)', 'Reports', and 'Forms'. Red arrows and yellow boxes with numbers 1, 2, 3, and 4 point to specific elements: 1. The user profile icon in the top right navigation bar. 2. The 'LOGIN' button on the login form. 3. The 'Forgot your password? Create a new one here.' link below the password field. 4. The 'Forms' link in the 'Reports' section of the sidebar menu.

How to link ORCID with SCOPUS

The analysis of publications indexed in SCOPUS is conducted by the [Quality Management Department](#) of IST. Some members of the CERENA team do not have their ORCID linked/associated with SCOPUS. This association is important to ensure that all publications of team members are included in the respective analysis. This process is very simple and can be done through the researcher's SCOPUS profile page. For any questions or further clarification: susana.giraldes@tecnico.ulisboa.pt.

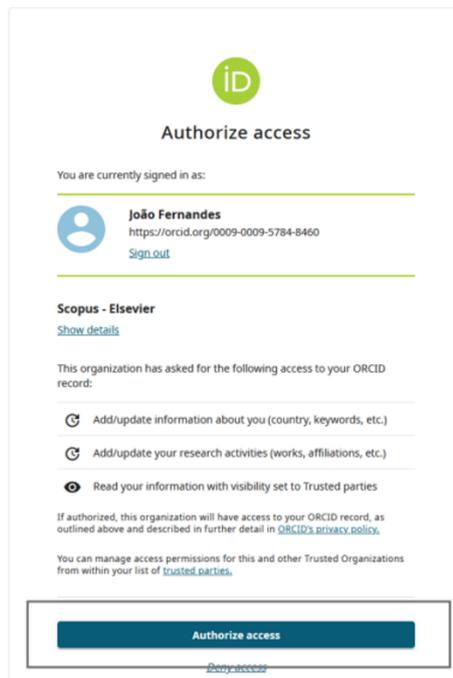
If ORCID is linked to SCOPUS:

[Instituto Superior Técnico, Lisbon, Portugal](#)  <https://orcid.org/0000-0000-0000-0000> [View more](#)



If ORCID is **NOT** linked to SCOPUS:

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Projects starting



The [SIMIACCI project](#) started in January 2025, with expected duration of 48 months. It is a research initiative funded by [Horizon Europe](#). Coordinated by CERENA and CEGIST, the project brings together several European research centres and cultural heritage institutions. The aim is to help Galleries, Libraries, Archives, and Museums transition to climate-friendly practices by improving **indoor air quality** while **conserving cultural artifacts** and reduce

energy consumption in the cultural field by 30-50%. The team is composed by Moisés Pinto, Abeer Mohtar, Leonardo Azevedo, from CERENA, and Ana Carvalho from CEGIST.

The [Skills4EII project](#) started in January 2025, with expected duration of 48 months. This [ERASMUS](#) funded project aims to address skills gaps in energy-intensive industries, using synergies in areas like recruitment, industrial symbiosis, and AI. The goal is to help industries become more human-centered, sustainable, and resilient. Maria Amélia Dionísio and Gustavo Paneiro are part of the CERENA team.

The [DMOptfES project](#) is a European MSCA funded fellowship that aims to optimize energy systems. It started in January 2025 with expected duration of 24 months. Dr. [Rafael Castro-Amoedo](#) joined CERENA with this MSCA fellowship, under the supervision of Henrique Matos, to develop new techniques integrating machine learning, optimization, uncertainty analysis, and real-time operation for a more sustainable, profitable, and responsible European economy.

Our people



Joana Monteiro, PhD in Mining Engineering



[Joana](#) is a proactive, friendly, determined, and professional PhD student. Her PhD project is supervised by [Rui Sousa](#) from DST Solar and [Aurora Futuro](#) from CERENA-FEUP. At the moment, Joana holds an FCT industrial scholarship that allows her to continue her research in Mining Engineering at FEUP. Her strong passion for working in engineering is evident, as she talks with enthusiasm about her research project.

What work are you doing at the moment?

J: “I am working on lithium extraction. The goal is to reduce the number of production lines required in the industry, by designing a commercial solution for processing two or more ores of different geological origins on the same production line.”

What results do you expect from your work?

J: “At the end of the project, we aim to work with both rocks and recycled batteries. For now, we are focused on two different raw materials (geologically distinct). We are already achieving alkaline leaching of two ores: spodumene and lepidolite.”

What would you like to do when you finish your PhD?

J: “I would like to work in engineering, managing projects and teams, particularly in a refinery or factory, where I can design and oversee processes.”

Mariana Santa-Marta, Pre-Award Office



Meet [Mariana Santa-Marta](#), the gritty leader of our Pre-Award Office. She describes herself as resilient, and those who know her also know she’s equally curious and energetic. The easiest way to reach her is through email or Teams, but if you’re ever in the Minas Building (IST) and you visit her in Room 2.01.07, you’ll be greeted by a lush jungle of greenery surrounding her desk.

A microbiologist by training, Mariana shifted her career towards supporting research and scientists after realizing her passion for management during her postdoc at Scripps, in San Diego (USA). The focus of the Pre-Award team is to assist researchers by helping them writing competitive grant applications and manage the administrative workload, allowing scientists to concentrate on the more creative and intellectual aspects of their work. This approach secures national and international funding opportunities and also helps researchers advance in their careers. Mariana is proud to work at CERENA, where the research areas are relevant and address pressing societal issues.

What is a researcher?

M: “A person who looks at the world through critical eyes.”

What is the challenge of science today?

M: “People should not forget why science is conducted. Science is not just about its applications; it must keep its essence: the curiosity to understand the world around us. 90% of all researchers who have ever existed throughout history are alive today. This competition means that science is no longer driven by curiosity, rather it is focused on

career, metrics, and results, everything must serve a specific purpose, and the fundamental questions are being neglected. We need a balance between everyday responsibilities and the freedom to think, we need to make time for creativity.”

If you could take an important political decision, what would it be?

M: “Increase funding for science.”

In memoriam



On December 7th, we sadly lost one of our members. **Pedro Castro**, a researcher and **associate professor with an aggregate degree**, followed a very successful professional career, always showing great sympathy, friendship, enthusiasm and absolute dedication to all the subjects he was involved in. His sudden disappearance leaves a huge void in both personal and scientific terms, as he was a recognised expert in his field of research. With great nostalgia and sadness, may he rest in peace!

Publications



Lobarinhas, R., Dionísio, A., & Paneiro, G. (2024). [High Temperature Effects on Global Heritage Stone Resources: A Systematic Review](#). *Heritage*, 7(11), 6310.

Miele, R., & Azevedo, L. (2024). [Physics-informed W-Net GAN for the direct stochastic inversion of fullstack seismic data into facies models](#). *Scientific Reports*, 14(1), 5122.

Figueiredo, F. M., Carretas, J. M., Leal, J. P., & Sardinha, J. M. (2024). [Fast, accessible and reliable method for elemental analysis of metals in solution by ED-XRF spectroscopy](#). *Journal of Analytical Science and Technology*, 15(1), 29.

Duarte, A. F., Peliz, Á., Matias, L., Mendes, R., & Azevedo, L. (2024). [Acoustic imaging of stable double diffusion in the Madeira abyssal plain](#). *Scientific Reports*, 14(1), 8273.

Salmi, T., Barahona, G. A., Najarnezhadmashhadi, A., Braz, C., Torres, A. G., Ciaramella, M., ... & Murzin, D. (2024). [Process Intensification via Structured Catalysts: Production of Sugar Alcohols](#). *Chemie Ingenieur Technik*, 96(12), 1642-1656.

Dates to diary



- January 8th 18:00 | Conference by Jorge T. Ribeiro: [Ir num pé e vir no outro](#), Alcântara Library, Lisbon
- January 17th 16:30 | Start-Of-The-Year CERENA-IST Social Gathering – Forgotten Lab, Museu Décio Thadeu, Minas Building (IST Alameda)
- January 23rd-24th | Kick-off Meeting of the [SIMIACCI project](#).
- January 30th 12:30 | CERENA Seminar by Sila Özkan “**Transforming biomass into syngas: innovative water co-electrolysis**”

Health and Wellbeing



White January is a campaign aimed at raising awareness about mental health, encouraging self-reflection, and **breaking the stigma** around mental illness. According to the World Health Organization (WHO), mental health is **a state of well-being** shaped by psychological, biological, social, and genetic factors that help us cope with life and contribute to our communities. In **Portugal**, mental health challenges, from stress to more serious conditions, are on the rise, making it more important than ever for people to seek professional help before things get too overwhelming.

The body speaks—never ignore the signs it’s sending, and don’t hesitate to reach out for support.

<https://www.magnusimagens.pt/janeiro-branco-cuide-da-sua-mente/>

Food for thoughts



Quote of the month

