Welcome to the NANOEMCA

Newsletter

Issue #01

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Confined Nanoreactors for Environmental, Medical & Catalytic Applications

Call: HORIZON-MSCA-SE-2024
Project ID: 101235833

Funded by the European Union

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Project Overview

NANOEMCA is a 48-month **Marie Skłodowska-Curie Staff Exchanges** project that brings together universities, research organisations and SMEs from Europe. The **goal** is to develop **confined nanoreactors** based on mesoporous organosilica materials and to turn them into practical solutions for **environmental, medical and catalytic** applications.

At the core of the proposal, NANOEMCA aims to **design new organosilane precursors and metal-loaded mesoporous organosilica nanoreactors**, using complementary synthesis routes and advanced characterisation to create materials with controlled pores, high surface area and tailored function. The project will test these materials in **water treatment, food packaging, biosensing, gas sensing, photocatalysis and biocatalysis**, while also measuring environmental and economic performance through **LCA and LCC**. Staff exchanges, training modules, workshops and NANOEMCA Café meetings are used to move knowledge across the consortium and build **long-term** cooperation.

The expected **impact** is broad. NANOEMCA aims to deliver **cleaner water, safer food, better sensing tools** and stronger links between research and industry, while also **training researchers**, supporting open science and creating new collaboration opportunities across Europe and partner countries. The project links to the European Green Deal, the ERA policy agenda, open science, gender equality and the broader goal of turning research into usable innovation.

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NANOEMCA Consortium

Kick-off Meeting

The consortium held its kick-off meeting on 21 November 2025 in hybrid form at POLITEHNICA Bucharest's CAMPUS Research Center. According to the project website, this first meeting gave all partners the chance to align on goals, roles and expectations, and to start the exchange of knowledge that will drive the project forward. The event also introduced the consortium structure, which includes academic partners, SMEs and an associated partner from Spain.

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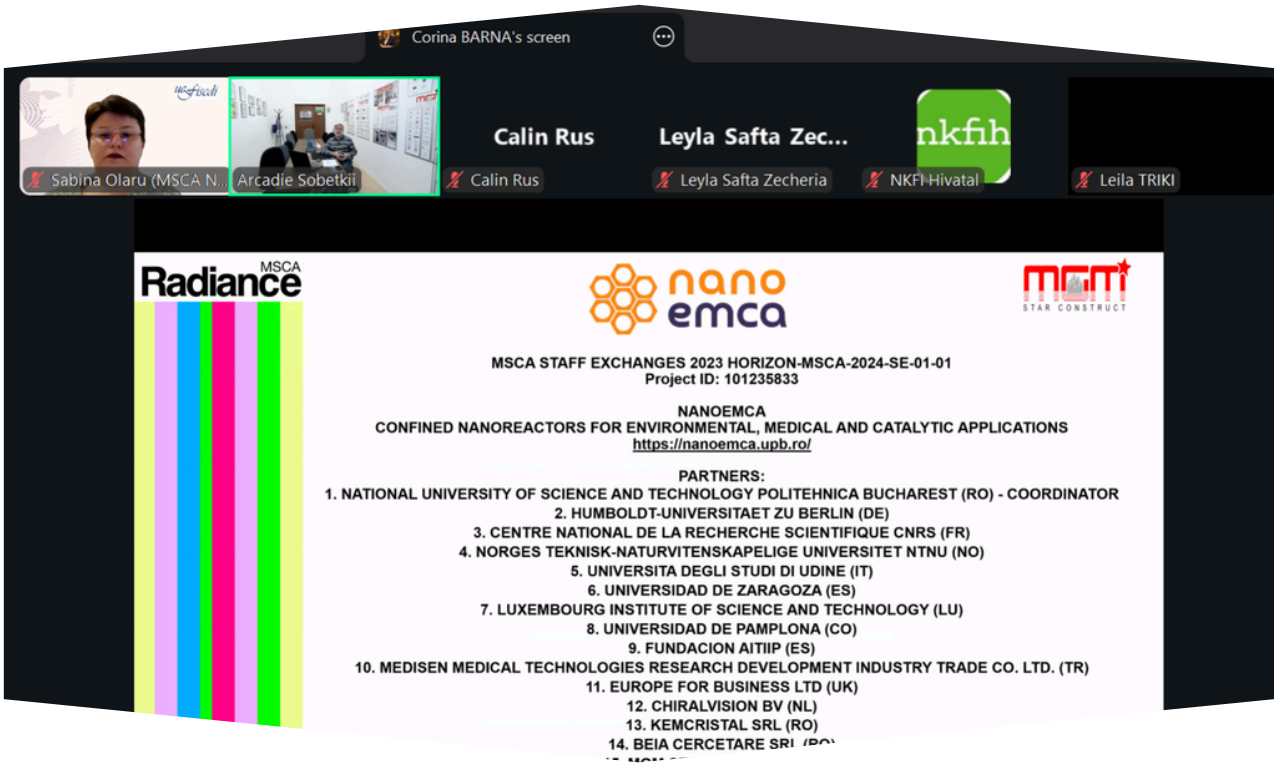
RADIANCE MSCA Exchanges Info Day



The recent RADIANCE-related MSCA Exchanges guidance is useful for projects like NANOEMCA because it focuses on how Staff Exchanges support international, inter-sectoral and interdisciplinary collaboration, and on how applicants can prepare strong proposals and build solid consortia. The official MSCA Staff Exchanges 2026 call page confirms that the call is open and that the deadline is 16 April 2026, which makes this guidance especially relevant for teams planning future mobility and partnership projects.

CHECK OUT RADIANCE'S WEBSITE

NANOEMCA Secondments

Secondment at CNRS-CEMHTI

From 2 March to 1 April 2026, PhD student Elisa-Gabriela Dumbravă Broască from POLITEHNICA Bucharest carried out a one-month secondment at CEMHTI-CNRS in Orléans, France. The project website says the secondment is designed to support exchange of research and knowledge transfer, while helping the student gain skills in characterising new materials and learning new techniques in an international research environment.

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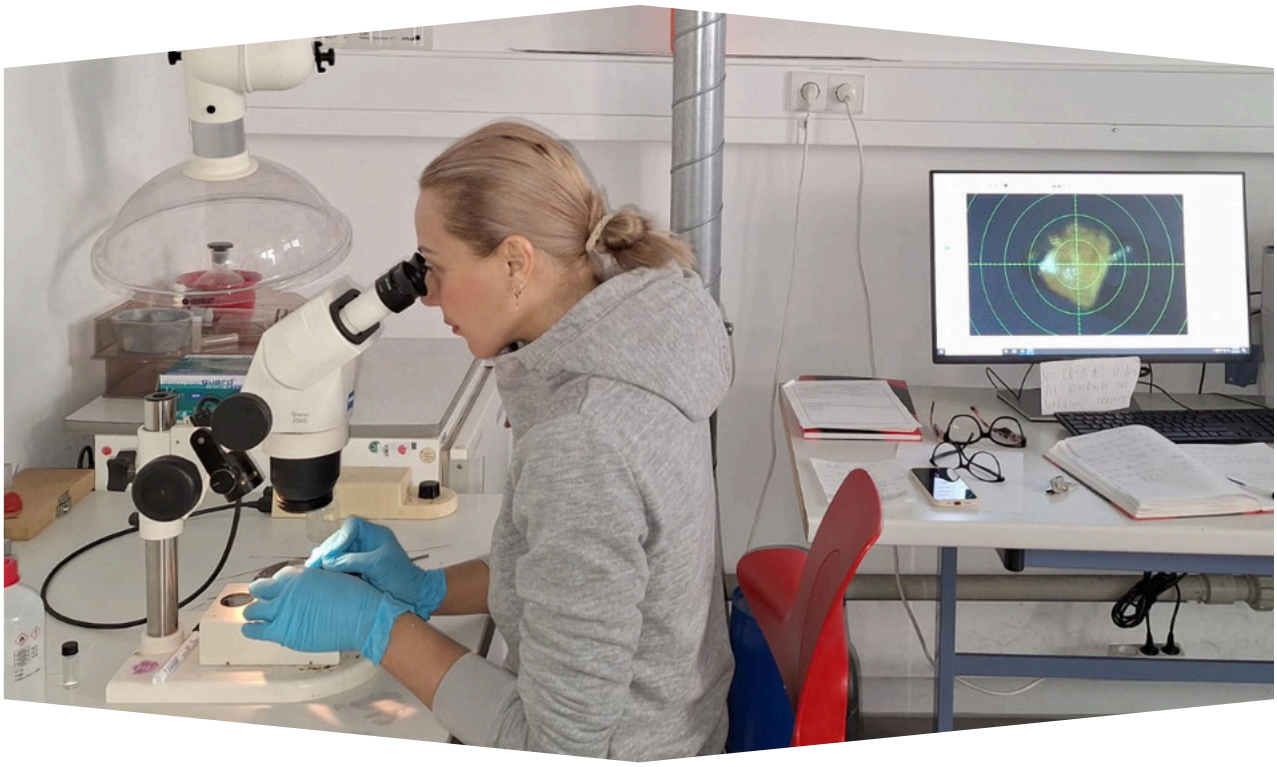
NANOEMCA Secondments

Secondment at UBER



Another recent exchange took place at Humboldt University in Berlin, where Prof. Florina Dumitru from POLITEHNICA Bucharest worked from 16 to 30 March 2026 with Dr. Beatrice Cula. The secondment focused on advanced X-ray diffraction measurements on single crystals and structure determination, strengthening the characterisation side of the project and giving the researcher access to high-level infrastructure and expertise.

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NANOEMCA Secondments

Secondments at POLITEHNICA Bucharest

Researchers from the Turkish partner MEDISEN have joined at the National University of Science and Technology POLITEHNICA Bucharest in Romania, reinforcing the project's international and inter-sectoral character. MSc. Selim Isildak (chemistry), Assist. Prof. Dr. Muhammed Ihsan Ozgun (metallurgy and materials) and BSc. Ensar Kanat (biotechnology) will be engage in hands-on knowledge exchange, discussion and closer collaboration.

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NANOEMCA Secondments

Researchers visit partner MGM

During their secondment period at POLITEHNICA Bucharest, the MEDISEN researchers visited partner MGM, where they were welcomed and guided by Phys. Arcadie Sobetkii, together with Dr. Emanuela Mihaela Craciun. The visit gave the researchers an introduction to MGM's advanced work in physical and chemical deposition processes, coating characterisation, lithography, optical components and precision mechanical production.

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Upcoming Events

European Sustainable Energy Week 2026

EUSEW 2026 will take place in Brussels and online 9-11th June 2026. It is the European Union's flagship event dedicated to renewable energy and efficient energy use, and this will mark its 20th anniversary. The programme will include policy sessions, networking and the Energy Fair.

LEARN MORE IN THEIR WEBSITE

MSCA Doctoral Networks 2026 Call information day

The MSCA Doctoral Networks 2026 call information day is scheduled for 3rd June 2026 and will be held online. For projects like NANOEMCA, this kind of event highlights EU researcher-training opportunities, proposal guidance and the wider MSCA ecosystem supporting mobility and skills development.

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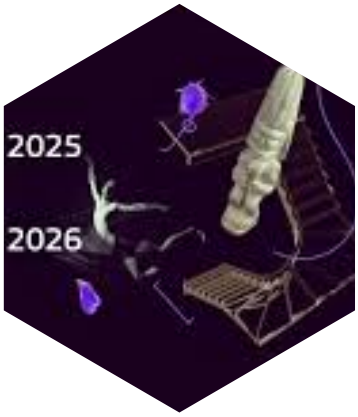
EU Framework News

MSCA Staff Exchanges 2026 call closed



With a deadline of 16th April 2026 and an indicative budget of €97.9 million, this year's Staff Exchanges will ensure to support international and inter-sectoral cooperation between academic and non-academic organisations, the same type of collaboration that the NANOEMCA project is built on.

LEARN MORE IN THEIR WEBSITE

Strengthened Safe and Sustainable by Design framework for chemicals and materials

On 6th March 2026, the European Commission adopted a revision for the framework, which reinforces an approach for guiding chemicals and materials innovation toward safer and more sustainable solutions over their full life cycles, aligning with NANOEMCA's emphasis on greener synthesis and responsible materials design.

READ THE FULL STORY

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EU Framework News

New EU initiative bolsters investment in circular water systems

On 30 March 2026, the European Commission announced a new initiative to support investment in circular water systems. This is highly relevant to NANOEMCA because the project's materials are being developed for pollutant removal, water treatment and broader circular-economy applications.

READ THE FULL STORY

European Commission prepares an Advanced Materials Act

The European Commission is preparing an Advanced Materials Act for 2026, aiming to create a strategic framework for advanced materials in the EU.

LEARN MORE IN THE EC'S WEBSITE

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