

22ND COORDINATION MEETING OF THE IAEA'S NETWORK OF ANALYTICAL LABORATORIES FOR THE MEASUREMENT OF ENVIRONMENTAL RADIOACTIVITY (ALMERA)

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The 22nd Coordination Meeting of the Network of Analytical Laboratories for the Measurement of Environmental Radioactivity (ALMERA) was held from 20th to 23rd October 2025 in Munich, Germany. Hosted by the Federal Office for Radiation Protection (Bundesamt für Strahlenschutz, BfS), the event brought together representatives from member laboratories worldwide to discuss technical advancements, quality assurance, and future strategies for environmental monitoring. The meeting was organised by the International Atomic Energy Agency (IAEA) and conducted in a hybrid format, enabling participation by ALMERA member laboratories worldwide.

The coordination meeting served as a platform to review ALMERA activities, achievements, and future priorities, with particular emphasis on proficiency tests (PTs), interlaboratory comparisons (ILCs), reference materials, and capacity building. A key highlight of the plenary sessions was the review of the 2025 ALMERA rapid gamma-ray spectrum analysis exercise organised in conjunction with the ConvEx-3 emergency response exercise. This exercise is vital for ensuring that member laboratories can deliver rapid and accurate results during radiological emergencies.



Figure 1: Opening remarks by the Director of the IAEA Nuclear Application Laboratories, followed by a welcome address from the President of BfS (left) and group photo after opening ceremony (right).

Updates were also provided on IAEA proficiency test organisation, seawater PTs, and ongoing interlaboratory comparisons. These discussions highlighted common analytical challenges faced by laboratories, including low-level radionuclide measurements, matrix interferences, and the need for improved documentation and sample characterisation. The introduction of new ALMERA member laboratories further strengthened the global network and enhanced regional representation.

A significant component of the meeting was the regional group discussions, covering Africa, Asia Pacific, Europe, the Middle East, and North and Latin America. These sessions allowed members to identify region-specific priorities related to environmental radioactivity monitoring, training needs, method development, and emergency preparedness. Malaysia, as an active member of the Asia

Pacific region, participated in sessions led by the regional coordinator. The group focused on finalizing regional reports and addressing key analytical challenges identified in previous meetings, such as the analysis of Naturally Occurring Radioactive Materials (NORM) in industrial residues and the monitoring of marine samples.

The meeting also featured several technical presentations, including advancements in gamma spectrometry, drone-based radiation mapping, liquid scintillation counting, and innovative approaches to enhance laboratory performance. A technical visit to BfS laboratories provided participants with valuable insights into advanced technologies, quality management practices, and applied research in environmental radioactivity monitoring.



Figure 2: Group photo of the technical visit to Bundesamt für Strahlenschutz laboratories.

The coordination meeting concluded with a plenary session summarising regional priorities and the ALMERA work plan for 2025-2026, reinforcing the network's commitment to maintaining high analytical quality, harmonisation of methods, and readiness to support environmental monitoring and emergency response worldwide. Participation in the 22nd ALMERA Coordination Meeting strengthened international collaboration, enhanced technical knowledge, and supported Malaysia's continued involvement in global initiatives related to environmental radioactivity measurement and radiation protection.

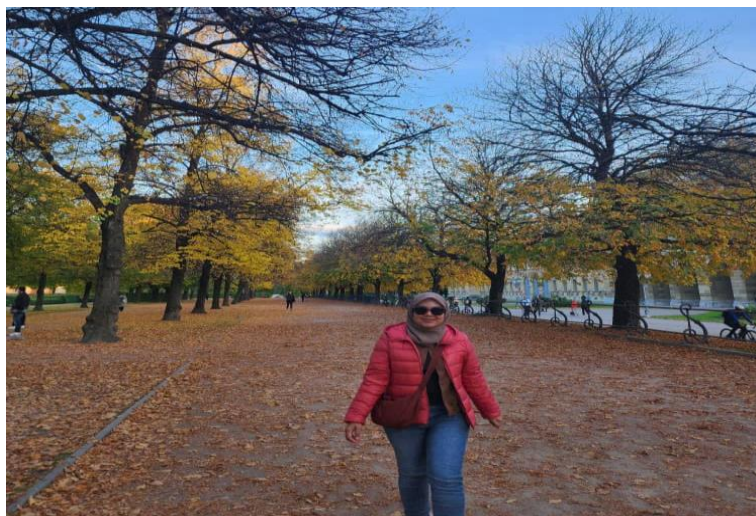


Figure 3: Enjoying the autumn landscape at the Hofgarten (Court Garden) in Munich.



Figure 4: The Famous Marienplatz (Mary's Square) in the Heart of Munich City Centre (left) and The Historic Karlstor Gate, one of the remaining medieval city gates in Munich (right).