

# Biennial Forum of the Network on Environmental Management and Remediation

IAEA Headquarters, Vienna, Austria and virtual participation via Cisco Webex

16 - 20 December 2024

Ref. No.: EVT2304176

### **Information Sheet**

#### Introduction

The Environet network has been created to enhance the sharing of knowledge and exchange of experience amongst different stakeholders in the fields of Environmental Remediation and NORM Management with the vision to facilitate the implementation of projects in these areas worldwide in a timely, safe and cost-effective way. The 2024 Environet meeting will mark the network's 15th anniversary. Since its inception, the network brought together practitioners, implementers, decision and policy makers, researchers, and regulators from diverse backgrounds and expertise levels in environmental remediation and NORM management.

Over the past 15 years, the Environet has evolved in response to international needs and interests. Initially focused on organizing training events, the network has expanded its scope to encompass a diverse range of activities aimed at achieving tangible outcomes. These include implementing dedicated projects resulting in technical reports, organization of webinars and establishing Communities of Practice. The intent behind these initiatives is to apply the knowledge gained to real situations. The network pursued the integration of its activities into the assistance provided to IAEA Member States through the Agency's Technical Cooperation Program. An example of this was the TC-INT 2020 Project "Enhancing Capacity Building to Promote Successful Decommissioning and Environmental Remediation" which was shaped by insights gained from the Environet's activities. Important to highlight that INT 2020 led to the formulation of a M.Sc. Programme in Decommissioning and Environmental Remediation to be implemented by means of a consortium of international High Education institutions. Environet also offers eLearning materials, a forum for discussion and other features in its website in the IAEA CONNECT Platform that can be found at:

https://nucleus.iaea.org/sites/connect/ENVIRONETpublic/Pages/default.aspx

The Environet steering Committee is composed of more than twenty members from Member States located worldwide. This ensures that the network gives due representation and captures challenges and needs from Member States with more and less advanced programmes in environmental remediation and NORM management.

The biennial meetings of the network represent a key activity of Environet as they allow the Environet community and other professionals working in the field of Environmental Remediation and NORM Management to exchange experiences, update each other on recent development in their national programmes, be informed about achievements of the network and also participate in group activities.

## **Objectives**

The Environet meeting will have the following objectives:

- O Review the status of environmental remediation projects in IAEA Member States, and share and discuss experiences in the planning and implementation of such projects with special attention being given to capturing experiences of different MS's related to the Holistic Approaches to Environmental Remediation; Innovative Approaches in Uranium Mining Development and Remediation of Uranium Mining and NORM Legacy Sites; Remediation of Groundwater and Mine Waters; Enhancement Mechanisms of Capacity Building in Environmental Remediation and NORM Management, Regulatory Approaches in Environmental Remediation and NORM Management. Sustainability and Circularity in Environmental Remediation and NORM Management;
- Review the recent outcomes of Environet related projects (including reports under preparation in each of these projects);
- o Breakout groups activities to discuss future activities to be considered by the IAEA in the scope of ENVIRONET workplan among them a dedicated project to deal with the management of uranium mining and processing sites in the scope of the UMREG (Uranium Mining Remediation Exchange Group) and another one on data-driven approaches to environmental remediation decision making with the support of artificial intelligence.

## **Target Audience**

Representatives of national and international organizations concerned with Environmental Remediation and NORM management, including:

- o government officials with policy responsibility for Environmental Remediation and NORM Management;
- o managers and members of regulatory authorities;
- managers and implementers of Environmental Remediation Projects and NORM related facility operators;
- o managers and planners from Environmental Remediation and NORM management organizations/projects;
- o researchers from universities and research institutions;
- o officials from concerned international organizations.

## Projects to be Discussed and Topics to be Covered

#### 1. MAESTRI Project - Management Systems Supporting Environmental Remediation Projects

**Objective of the Project:** To develop a structured framework that considers, in an integrated manner, the different dimensions and activities relevant to the management of sites contaminated by ongoing or past activities (including accidents) with a view to bringing them to sustainable end-states suitable for beneficial use.

**Project Implementation Mode**: MAESTRI operate three working groups: 1) WG#1 dedicated to elaborating a framework to be used in social multi-criteria evaluation; 2) WG#2 dedicated to discuss the implementation of sustainability dimensions in Environmental Remediation Projects; 3) WG#3 dedicated to engage communities of practice and apply the outcomes of MAESTRI in real case scenarios (case-studies).

**Expected Outcomes:** Presentation of the MAESTRI Baseline Report and exchange of experiences in the consideration of sustainability issues in the decision-making process supported by multi-criteria decision Analysis.

#### 2. NORM Project:

**Objective of the Project:** Establish a framework – the Holistic Approach to NORM Management" to support IAEA Member States in managing NORM Residues in a sustainable way an in line with the principles of the Circular Economy.

**Project Implementation Mode:** The project is operated by six working groups, namely on: WG#1 – Policy and Strategies; WG#2 Inventory; WG#3 Cost Estimation of Disposal Options; WG#4 Sampling and Characterization; WG#5 – Valorisation of Residues (in line with Circular Economy) and WG#6 Decommissioning of NORM Facilities.

**Expected Outcomes**: The meeting will allow the discussions on the status of these projects and have inputs and suggestions to be incorporated in the project activities collected, including those addressing the reports under preparation.

#### 3. REMPOR – The Environmental Remediation Portal

**Objective of the Project:** REMPOR platform is designed to assist Member States to build their capacities in dealing with the environmental liabilities.

**Project Implementation Mode**: It provides a learning experience through high quality content keeping track of proven and innovative technological solutions. Instead of producing new contents, REMPOR integrates data that can be accessed from different sources through multiple interfaces. The data users will have access to are curated data provided by internal and external trusted sources. Users may share experiences and knowledge through the portal. REMPOR will be structured integrating different databases in a geoportal. Basic information about different sites under remediation or that have been remediated will be made available. These will include aspects relate to technology selection, costs, stakeholder issues among others.

**Expected Outcome**: Improve Remediation projects implementability by enhancing the accessibility of a wide range of users to quality information on Environmental Remediation topics to support decision-making by sharing of information and experiences that can help others, making professionals aware of the technologies, methods and approaches that have been used in remediated sites and them aware of the cost ranges involved, the timeline for project implementation, and many other aspects.

### **New Projects for Discussion**

### 4. UMREG – Uranium Mining Exchange Group

Description: The Uranium Mining Remediation Exchange Group has been running in various forms for over 20 years. The first bilateral USA/German meeting on remediation of uranium mining and milling legacy sites was held in 1993 (Albuquerque) and 1994 (Chemnitz). It was conceived to facilitate information exchange between groups conducting remediation projects (in US and Germany). Multilateral meetings commenced in 1995, and were held in 1997, 1998, 2000, 2001, 2022, 2003, 2005 and 2007. In 2007, uranium mining was added to the meetings working activities on remediation. Regular meetings continued in 2009 and 2011. The last meeting before being part of the IAEA program, was September 2011. In this year's Environet meeting, participants will discuss the adequacy/possibility of giving UMREG a more consolidate and well-defined scope, going beyond the important exchange of experience and information but addressing and reporting and emerging topics such as sustainability and circularity in uranium mining and processing, long-term care and maintenance of remediation solutions applied to specifically to uranium mining sites e.g. stabilization of tailings dam and waste rock piles, funding accruement to support long-term institutional controls and challenges in developing new uranium mining projects due to public perception of the long-term issues associated with these projects.

# 5. Artificial Intelligence in ER - Data-driven approaches to environmental remediation decision making

This project, proposed by PNNL-USA, proposes to develop guidance and tools to help remediation site managers assess, select, and implement remediation technologies, remedy approaches, and operational strategies using data-driven approaches. The guidance and tools will provide a structured framework for compiling information, identifying data needs, and working through decision logic to assess key factors, trade-offs, and consequences, thus supporting risk-based remediation decisions. Factors that go into the complex decisions include technical aspects on remediation technology effectiveness, implementability under site-specific conditions, budgetary constraints, regulatory compliance, and socio-cultural impacts/acceptance. A framework for working through balanced decision making will address how to 1) determine what data is needed to support analysis and decision-making, 2) use statistical methods to make decisions based on a limited amount of data, and 3) apply advanced machine learning analysis for data-rich situations.

# Working Language(s)

English

# **Participation and Registration**

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy

Authority) or organization for onward transmission to the IAEA by **27 September 2024**, following the registration procedure in InTouch+:

- 1. Access the InTouch+ platform (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>):
  - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
  - Persons without an existing NUCLEUS account can register here.
- 2. Once signed in, prospective participants can use the InTouch+ platform to:
  - Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
  - Search for the relevant event under the 'My Eligible Events' tab;
  - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact InTouchPlus.Contact-Point@iaea.org);
  - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
  - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
  - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by **27 September 2024**.

For additional information on how to apply for an event, please refer to the <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the Agency's Personal Data and Privacy Policy and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the Data Processing Notice concerning IAEA InTouch+ platform.

# **Expenditures and Grants**

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by 27 September 2024.

### Venue

The event will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

www.iaea.org/events.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

### Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

### **IAEA Contacts**

#### **Scientific Secretary**

#### Mr Horst Richard S. Monken Fernandes

Division of Nuclear Fuel Cycle and Waste Technology Department of Nuclear Energy International Atomic Energy Agency Vienna International Centre PO Box 100 1400 VIENNA AUSTRIA

Tel.: +43 1 2600 24673 Fax: +43 1 26007

Email: H.Monken-Fernandes@iaea.org

### **Administrative Secretary**

#### Mr Jovan Catovic

Division of Nuclear Fuel Cycle and Waste Technology Department of Nuclear Energy International Atomic Energy Agency Vienna International Centre PO Box 100 1400 VIENNA AUSTRIA

Tel.: +43 1 2600 22754 Fax: +43 1 26007

Email: J.Catovic@iaea.org

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.