

**PANEL SESSION 88 - Global Networking - Resources for Safer and More Efficient Environmental Remediation**

**Co-Chairs:** Leo van Velzen, *Nuclear Research and Consultancy Group -NRG- (Netherlands)*;  
Michelle Rehmann, *HER Creative Solutions (USA)*

**Organizer:** Horst Monken-Fernandes, *IAEA (Austria)*

**Reporter:** Leo van Velzen, *NRG- (Netherlands)*

Panelists Included:

- Peter Booth, *WSP Environment and Energy (UK)*
- Oleg Mansurov, *Bocvhar Institute (Russia)*
- Dawn Wellman, *Pacific Northwest National Laboratory (USA)*
- John Rowat, *IAEA (Austria)*
- Ana M. Han, *US DOE (USA)*

Some 18 to 20 people were in attendance, in addition to the panel of 7 persons, to hear this session about “Global Networking” organized by Horst Monken-Fernandez.

**Michelle Rehmann** opened the panel session Global Networking by introducing briefly the panel members followed by explaining the objectives of the session. The objectives were:

- Improvement of global networking in order to establish safer and more sustainable remediation;
- Attracting involvement from national and international organizations that help support and drive forward international clean-up efforts through the ENVIRONET (an established network by IAEA).

The panel discussed the following aspects:

- How can ENVIRONET focus its efforts on prioritized topics and at the same time retain all its interested partners?
- From your experience what mechanisms can be utilized to demonstrate progress and success within ENVIRONET activities?
- How to attract involvement from national and international organizations that may help support and drive forward international clean-up efforts through ENVIRONET?

**Peter Booth's** presentation focused on the IAEA Network ENVIRONET. ENVIRONET has been in operation for 2 years and has more than 30 network partners, its wide reaching globally. Aim of ENVIRONET is to facilitate discussions and the sharing of available relevant skills, knowledge, managerial approaches and expertise to environmental management and remediation between problem holders and “solution providers” for the remediation of radiologically contaminated sites and clean-up of soils and/or ground waters by training and networking. Establishing regional training centers would be a cost effective solution. ENVIRONET's achievements to date have been:

- Training programs covering site characterization, risk assessment, case studies, stakeholder engagement, remediation technologies, etc. organized by Argonne National Laboratory (USA);

## WM2011 Conference Panel Report

- Forum established at LinkedIn (> 100 members);
- Scientific visit from Atomic Energy Commission (AEC) of Syria to NRG Netherlands to learn about NORM waste treatment and storage.
- NRG fellowship with AEC Syria dealing with characterization of NORM, especially sampling.

Peter Booth suggested that ENVIRONET could advance further with the addition of regionally focused workshops, projects, training courses, demonstrable output from ENVIRONET work, greater interaction with international funding bodies, close links with agencies like US DOE (who have a demonstrable track record in environmental remediation), and greater involvement of “solution providers”.

Further, ENVIRONET will benefit from more problem holder members and solution providers. Solution providers (volunteer organizations) need to understand what benefits they may gain in return for their participation and we may need to consider mechanisms whereby such organizations might gain something in return.

**Oleg Mansurov** described that Russia is both a solution provider as well a problem holder. He emphasized some of key goals of environmental operations and execution of programs, which included:

- Safe work;
- Ensuring safety and working to regulatory requirements;
- Managing performance-based projects with life-cycle over several decades;
- Maintaining a qualified workforce;
- Applying first-of-kind technologies and solutions.

Oleg Mansurov suggested that Russia and CIS countries can foster, by the development of a regional “IAEA Center of Competences” improvement in ER practices throughout the region. He acknowledged that project financing identification and allocation will be a challenge.

**Dawn Wellman**, who stepped in and presented the work of Boris Faybishenko (Lawrence Berkeley National Laboratory USA), described the efforts made to estimate potential environmental effects of the contamination in the Chernobyl Cooling Pond. The case study of the Cooling Pond is a typical example of a complex decontamination and environmental remediation project. Issues surrounding the bottom sediments in the pond may be used as a test case for similar complex sites and to examine many technical areas, like: new monitoring methods and tools to monitor pond decommissioning and remediation.

It was noted that DOE (USA) is cooperating in this project with the IAEA on examining knowledge to be gained through the remediation of the Cooling Pond.

Following Dawn Wellman’s presentation, Dawn agreed that technology transfer between IAEA, US DOE and ENVIRONET participants was crucial to expanding technology options.

## WM2011 Conference Panel Report

**Ana Han** presented US DOE Environmental Management (EM) mission for working with international organizations in establishing strategic partnerships. A key effort under Secretary Chu is to use science and technology to decrease life cycle cost, period of the execution, and reduction of technical, financial and programmatic risks of the EM program.

EM international partnerships and joint programs were presented and next year Canada and Argentina will be added to the roster of those countries.

DOE EM international program challenge is to become an effective mechanism in coordinating national laboratories, universities, and industries at an international level as well as expanding collaborative technology developments with international partners through a focus on transformational solutions. DOE EM sees as benefits beneficial relationships with leading international scientists which can contribute in establishing key technology developments, like scientists from ROSATOM (Russia) and being recognized as a world know expert in waste management and environmental issues.

Ana Han can be contacted for a copy of the International Strategic Plan for 2010 – 2015. It is also available on the US DOE website.

**Leo van Velzen** summarized the above presentations and high lighted their key messages and posed again the three questions under consideration.

A theme that emerged during the different presentations was that of learning from ER projects to avoid generation of future legacy sites.

### **Comments and/or questions**

*Question - A member of the audience indicated that it was interesting to learn that ENVIRONET exists. But his question was “What will make ENVIRONET successful?”*

**Peter Booth** gave his perspective that he would like to see products to demonstrate its output e.g., bankable projects. Meeting up and purely sharing experiences alone will not move ENVIRONET forward. Outputs can be regionally focused workshops and training courses, scientific visits and fellowships as well as demonstration of a successful and sustainable remediation with an overall reduction of risk to human health and the environment. Further, outputs need to be formalized better.

**A Russian representative** of ROSATOM and partner in ENVIRONET responded to benefit of knowledge exchange for workers in ROSATOM and companies that provide work in remedial activities, especially on the aspect of establishing decontamination criteria and final status survey approaches.

**A Norwegian representative** reformulated the above question as follows: How to encourage participation of organizations to a Network that are too busy? Important is that:

- To know the need of problem holders and prioritize these topics, as these companies have no time to follow networks;
- It is attractive to learn of experiences, both good and mistakes;
- Make modest steps.

## WM2011 Conference Panel Report

*Question - How to expand ENVIRONET attracting involvement from national and international organizations?*

**From the audience** it was suggested to establish a “Volunteers data base”, which might be a subliminal way of advertising.

**John Rowat**, (IAEA) responded that IAEA is setting up a system/portal called “CONNECT” which will have greater functionality than the IAEA presently has. CONNECT will become the main vehicle for people to readily and freely access existing information. Further, ENVIRONET and IAEA cannot endorse any particular company over another.

**Peter Booth** indicated that large and small engineering companies can participate in ENVIRONET. A concern from the audience was whether or not countries with a great deal of experience would be willing to participate in Networks. Discussion was held on how to involve those with significant expertise. **Ana Han** pointed out that realization of tangible and non-tangible benefits could be an important aspect. Involvement gives companies the opportunity to showcase their expertise in other countries.

DOE EM was asked if DOE EM might have the ability to facilitate interactions with applied field centers internationally. DOE EM indicated that mutual benefits might exist. It is evident that win-win scenarios must be identified. **Dawn Wellman** noted that the opportunity to set up a mutually beneficial partnership with Chernobyl, for example, would be more readily approved internationally than at a DOE site.

The panel agreed that limited resources should not be an excuse to not take part in international Environmental Remediation. **John Rowat** pointed out that the IAEA has a large structured program of assistance to countries with no funds. A core part of the IAEA mission is to assist member countries, but there are limitations to the program. It is good at what it does, but does not do all things.

From the audience, it was suggested to define a working plan for a certain period e.g. 3 years, so that a track record can be established and trust can be gained from international organizations.

*Question – Is it possible to develop an inventory of sites requiring remediation?*

**Peter Booth** indicated that IAEA had in the past begun to develop such a database of contaminated sites, but countries were not enthusiastic about contributing to it.

**Leo van Velzen** added that a similar effort was made in a project sponsored by the European Commission and the same experience was gained.

### **Conclusion**

The presentations of the panelists highlighted the aim of the session “Global Networking; Resources for Safer and More Efficient Environmental Remediation” from different points of view as well as the major aspects and challenges to setup an efficient and active Global Network.

## WM2011 Conference Panel Report

The Co-Chairs, the chairman of ENVIRONET and the organizer of the panel had prepared three questions:

1. *How can the Network focus its efforts on prioritized topics and at the same time retain all its interested partners? Or rephrased by a member of the audience: How to encourage participation of organizations to a Network that are too busy?*

The following comments and suggestions have been made:

- a. Make an inventory of the needs of problem holders and prioritize these topics;
  - b. Create attractiveness for organizations by presenting experiences, good and mistakes ones;
  - c. Make modest steps;
2. *From your experience what mechanisms can be utilized to demonstrate progress and success within the Networks Activities?*
    - a. Meeting up and purely sharing experiences alone will not move a Network forward, demonstrate its output e.g. bankable projects.
    - b. Define a working plan for a certain period e.g. 3 years, so that a track record can be established and trust can be gained from (international) organizations.
  3. *How to attract involvement from national and international organizations that may help support and drive forward international clean-up efforts through ENVIRONET?*
    - a. Important aspects to attract involvement could be the realization of tangible and non-tangible benefits;
    - b. Create opportunities for organizations to showcase their expertise;
    - c. Create - indicate that mutual benefits might exist. It is evident that win-win scenarios must be identified and optimized, and communicated;
    - d. Set-up a system/portal for people to readily and freely access existing information and to freely contact other organizations.

#####