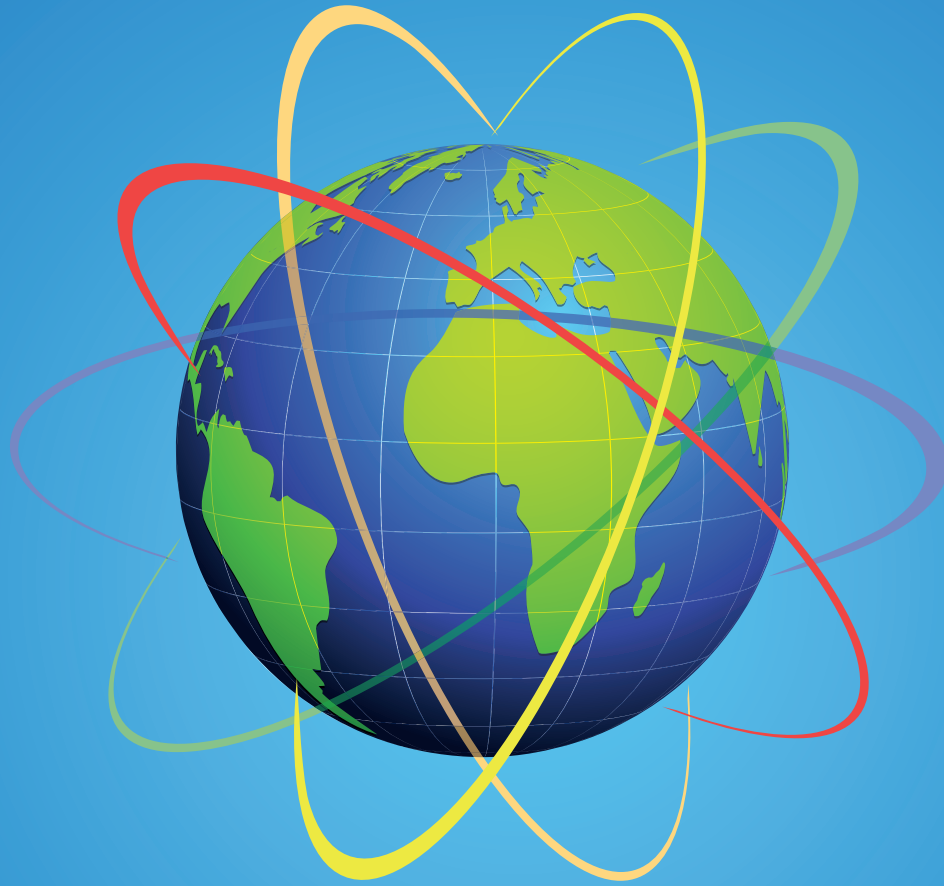


# WORKSHOPS



September 17-19, 2014 Ferrara Exhibition Centre

The 3<sup>rd</sup> International Conference on:  
**SUSTAINABLE  
REMEDIATION  
2014**

Cooperating International Partner Organisations:



Promoting Italian organizations:



[sustrem2014.com](http://sustrem2014.com)

## IMPLEMENTING REMEDIES WITH A LOWER ENVIRONMENTAL FOOTPRINT: RECENT DEVELOPMENTS

Thursday, 18 September  
Parallel session 1  
9:00 am - 11:00 am

### **Background:**

The investigation and cleanup of contaminated properties consumes energy, water, and natural resources, creating an environmental footprint. The US Environmental Protection Agency seeks to implement its core missions, including site remediation programs, in a sustainable manner. Greener cleanups strive to consider all environmental effects during a cleanup and incorporate approaches to minimize the footprint. To this end, US EPA collaborated with ASTM International in the development of the Standard Guide for Greener Cleanups, released in September 2013. The Guide offers remediation professionals a clear, step-wise practical approach to reducing the environmental footprint of remediation projects while meeting regulatory requirements. For further information on these efforts please see [http://www.cluin.org/greenremediation/subtab\\_b5.cfm](http://www.cluin.org/greenremediation/subtab_b5.cfm)

### **Objectives:**

Through this workshop, participants will learn the 5-step decision-making process to reduce the environmental footprint of contaminated site assessment and cleanup projects. Participants will gain insight on the genesis of this effort, potential applications of the Guide, the mechanics of actually using it at a project, and how stakeholders are considering its use. The training will be instructed by Carlos Pachon, lead of the ES EPA Greener Cleanups effort. The workshop will include lecture, exercise, and discussion on current technical issues such as the relationship between “adaptive management” and lowering environmental footprints of remedies.

Carlos S Pachon  
Senior Environmental Protection Specialists, Superfund  
US Environmental Protection Agency  
Washington, DC.

# THE WORLD CAFÉ NANOREMEDIATION: HOPE OR FEAR FROM THE SUSTAINABILITY PERSPECTIVE?

**Thursday, 18 September**  
**Parallel session 2**  
**9:00 am - 11:00 am**

Human industrial activities resulted in a great number of contaminated land areas in Europe and world. Management of those areas has to prevent any unexpected risk to humans or environment. In order to ensure sustainable development of contaminated areas, there is need for innovative solutions to prevent and remediate pollution, particularly where problems seem intractable or the impacts of current treatments seem severe.

The use of nanoparticles in remediation is seen by a number of people as offering a step change in remediation technology performance and in extending the range of treatable problems. Could nanoremediation be the answer? How sustainable is nanoremediation if sustainable at all? What are the most important aspects to contribute to the overall sustainability of a land remediation project? In this special session developed by the FP7 NanoRem project\* ([www.nanorem.eu](http://www.nanorem.eu)) we will explore the pros and cons of “nanoremediation” as a sustainable remediation technique.

In our special session we will begin with some brief scene setting from the NanoRem project, then open out for discussions in small groups using the friendly and engaging “World Café” format, and then come together to combine our views and identify any common trends across our group perspectives. We will make a brief session report which will be shared with you and the conference organisers. We hope that everyone will get a say and that we will make a tangible contribution to both sustainable remediation and nanoremediation development, while having an interesting and enjoyable morning.

## **Program:**

- Scene setting papers 30 minutes (from NanoRem speakers):
  - o Remediation, Risk assessment, land management, nanoremediation, other technologies
  - o The concept of sustainable remediation being applied in NanoRem
  
- World Café questions and debate in groups 60 minutes:
  - o What do you understand by sustainability and why is it important to you? (max 10 minutes of the discussion time)
  - o How sustainable do you think nanoremediation is and why? Consider following aspects:
    - Environmental
    - Economic
    - Social
  
- Plenary discussion (30 minutes)
  - o What is our consensus view?
  - o What did you learn from this discussion? Did something surprise you? Challenged you?

\*NanoRem (Taking Nanotechnological Remediation Processes from Lab Scale to End User Applications for the Restoration of a Clean Environment) is a research project, funded through the European Commission’s Framework 7 research programme. NanoRem focuses on facilitating practical, safe, economic and exploitable nanotechnology for in situ remediation. This is being undertaken in parallel with developing a comprehensive understanding of the environmental risk-benefit for the use of nanoparticles (NPs), market demand, overall sustainability, and stakeholder perceptions.

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**Thursday, 18 September**  
**Parallel session 2**  
**11:20 am - 1:20 pm**

**Objectives**

- Stimulate international exchange on the state of the art (formats, inventories and communication) of sustainable remediation and redevelopment
- Highlight case studies that best exemplify the objectives of SustRem III, including “Brown fields redevelopment; environmental footprint; increased cost-effectiveness, and environmental & social improvement, renewables, combined benefit approaches”
- Promote clarity and consistency, facilitate stakeholder and regulator approval, and expand global application of sustainable remediation and redevelopment

**Agenda**

1. Welcome/Overview
2. Panel discussion on SR case study initiatives (SURF-UK, SURF ANZ, SURF USA, NICOLE, U.S. EPA, U.S. Military)
3. Composite look at templates and communication techniques
4. Obstacles and opportunities to incorporate SR in a project’s life cycle
5. Presentation of case studies that highlight the SustRem III Objectives
6. Audience discussion
7. Summary of discussion and proposed follow-up

**Chair:**

BARBARA H. MACO  
MBA, Sustainable Management  
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