

# Progress in Sustainable Remediation Worldwide

Sustainable remediation has become an area of development globally with public and private sector organisations becoming involved in a number of projects and networks intended to improve remediation practice and make it more sustainable, with initiatives in Europe, North and South America, Australia, New Zealand and Asia.

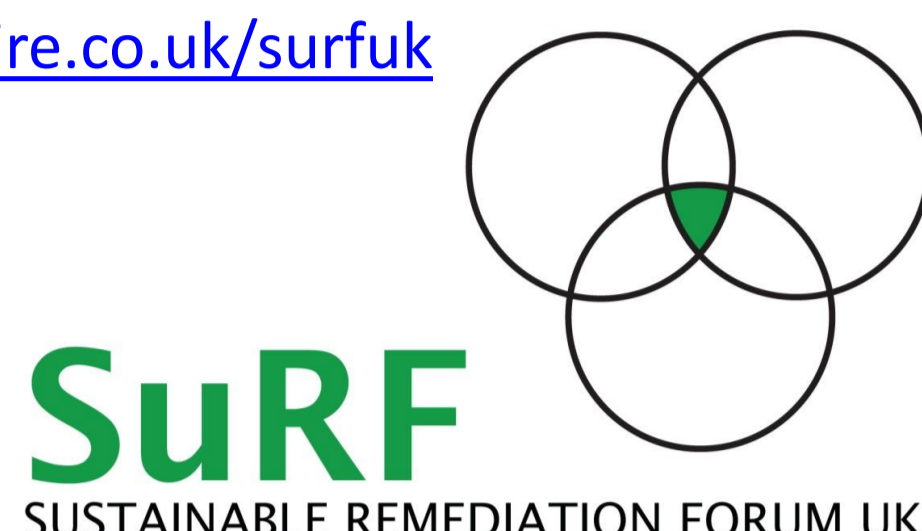
The Sustainable Remediation Forum (SuRF) initiatives are now well established in UK, USA, Canada, Australia, New Zealand, Netherlands, Italy, Taiwan, Brazil and Columbia, with further interest in China and Japan. These networks have now been meeting quarterly for the last two years to share knowledge, work collaboratively and provide support to the newer networks with all information

about the networks being made available through [www.claire.co.uk/surfinternational](http://www.claire.co.uk/surfinternational). An additional European stakeholder network NICOLE also participates in the SuRF international meetings as they are also extremely active in the sustainable remediation field but European wide rather than country specific. NICOLE has worked with the COMMON FORUM to establish a European wide position statement on sustainable remediation ([www.nicole.org](http://www.nicole.org)) which has now been translated into over ten different languages. Last Year, ASTM International published a standard guide on integrating sustainable objectives into cleanups. More recently members of several of the SuRF networks have worked collaboratively through their respective National Standards Bodies on an ISO standard on Sustainable Remediation as part of the work of TC190 (Soil Quality).

Sustainable Remediation Forum UK (SuRF-UK) is the United Kingdom's Sustainable Remediation Forum – an initiative set up to progress the UK understanding of sustainable remediation. It was founded in 2007, and defines sustainable remediation as the practice of demonstrating, in terms of environmental, economic and social indicators, that the benefit of undertaking remediation is greater than its impact, and that the optimum remediation solution is selected

through the use of a balanced decision-making process.

For further information:  
<http://www.claire.co.uk/surfuk>



The Sustainable Remediation Forum (SURF) promotes the use of sustainable practices during the investigation, construction, remediation, redevelopment, and monitoring of environmental cleanup sites, with the objective of balancing economic viability, conservation of natural resources and biodiversity, and the enhancement of the quality of life in surrounding communities. Since its founding in 2006, SURF has brought together the best and the brightest in the remediation field, and has led the evolution of sustainable remediation from conceptual discussions to standard operating procedure. Our mission is to maximize the overall environmental, societal, and economic benefits from the site cleanup process by:

- Advancing the science and application of sustainable remediation
- Developing best practices
- Exchanging professional knowledge
- Providing education and outreach

For further information:  
<http://www.sustainableremediation.org>,  
[president@sustainableremediation.org](mailto:president@sustainableremediation.org)



The Sustainable Remediation Forum of Australia and New Zealand (SuRF ANZ), a Practice Forum of the Australasian Land and Groundwater Association, develops and publishes sustainable remediation practice materials, establishes member access to ANZ and international SuRF organisations via the SuRF ANZ website, and delivers practice workshops and conference sessions at national and international meetings and conferences. Practice improvement activities for members include face-to-face workshops, interactive discussions on-line, and "State of SuRFANZ" reports and newsletters.

- Organising meetings and forums to encourage SR dialogues;
- Facilitating contact with international SuRF associations; and
- Contributing to an Australian national remediation framework currently under development.

For further information:  
<http://landandgroundwater.com/page/sustainable-remediation-forum-for-australia-new-zealand-surf-anz>



Detailed objectives of SuRF ANZ include:

- Establishing SuRF ANZ policy in consultation with members;
- Providing access to website-based Sustainable Remediation (SR) tools;

The rapid industrial growth in Colombia has generated benefits to social and economic level, however this growth has often developed without regard for the environment and the effect on natural resources. Remediation programmes in Colombia are a necessity however there is a need for them to be more sustainable.

Our first aim is to communicate the benefits of sustainable remediation process to the industrial sector and the government. We are planning to start a pilot project at the end of 2015.

This initiative was born in Colombia in 2013, consolidated in the second half of 2014 and launched in October 2014. The promoting members of the initiative are:

For further information:  
Alfonso Rodriguez, R3 Environmental Technology Colombia SAS  
[alfonso.rodriguez@r3environmental.com.co](mailto:alfonso.rodriguez@r3environmental.com.co)  
[www.r3environmental.com.co](http://www.r3environmental.com.co)  
[www.surfcolombia.org](http://www.surfcolombia.org)

- Dupont Colombia
- Ecosoluciones
- ERM (Environmental Resources Management) Colombia
- R3 Environmental Technology Colombia SAS
- TetraTech



The Network For Industrially Contaminated Land Europe - NICOLE is the European platform on soil management, integrating the technical, economical, legal, and environmental interests where industry as problems owner with her own technological, legislative experience and knowledge together with the environmental services providers community and scientist can share experiences, support new approaches and take public position on specific issues raised new legislation. This combination enables NICOLE to represent its high profile members on either end through a joint multi sectoral strategy and representation towards governmental legislative entities and public media forums.

NICOLE's Working Group "Sustainable Remediation" has developed and published a Road Map on Sustainable Remediation. They have also issued a Joint Position Statement on Risk Informed and Sustainable Remediation together with the Common Forum, a network of European Policy makers and Regulators working in contaminated land.

For further information:  
<http://nicole.org>



The name SuRF-NL was chosen to fit in with the multitude of initiatives outside of the Netherlands, but the scope of SuRF-NL is wider than most of the other SURF's. It is not just risk based remediation. It also includes the sustainable use of soil and groundwater, prevention and professionalizing soil and groundwater quality management. The Sustainable Remediation Forum aims to achieve broad participation by the involvement of industry, regulators and scientist. Over the last 5 years the Forum has built a case portfolio with approximately 10 example cases, and the last achievement was the publication of a short, fancy and easily accessible guidance on Sustainable Remediation. This guidance was

published within the framework of Foundation on Knowledge Development and Transfer SKB and the BodembreedForum. The document can be found at our website [www.surf-nl.com](http://www.surf-nl.com)

For further information please contact:  
Hans Slenders - [hans.slenders@arcadis.nl](mailto:hans.slenders@arcadis.nl)  
Laurent Bakker - [laurent.bakker@tauw.nl](mailto:laurent.bakker@tauw.nl)



SuRF Taiwan, founded in 2012, is a committee under the Taiwan Association of Soil and Groundwater Environmental Protection (TASGEP) with the mission to promote green and sustainable remediation (GSR) in Taiwan and is comprised of members from the TASGEP with representatives from the academia and remediation industry.

tool kits and provide insights to the Taiwan EPA. In order to expand the influence of SuRF-Taiwan, large corporations with many contaminated sites are invited to join the organization in hope that more responsible parties can adopt GSR in their site management activities.

For further information:  
[www.surf-taiwan.org.tw/web/surf\\_index.html](http://www.surf-taiwan.org.tw/web/surf_index.html)  
Dr. Colin S. Chen, Department of Biotechnology National Kaohsiung Normal University Kaohsiung, Taiwan, [cschen@nkn.edu.tw](mailto:cschen@nkn.edu.tw)



Since GSR development in Taiwan is a top-down approach lead by the Taiwan Environmental Protection Administration (TEPA), the role of SuRF Taiwan is to act as a consultant and support the government by advocating the GSR concept to the remediation industry. Members of SuRF-Taiwan meet regularly to review the latest progress of the developed GSR guidelines and

SuRF-Italy was launched in 2012 by a few Italian public and private operators in the remediation sector, and operates as a working group of RECONNET (Italian Network on the Management and Remediation of Contaminated Sites, [www.reconnet.net](http://www.reconnet.net)). Its mission is to:

- bring remediation actions forward, through stakeholder involvement;
- disseminate successful experiences and tools;
- increase sustainability concepts for economic, social and environmental benefits.

remediation, including stakeholder engagement. In 2014 SuRF-Italy organized SustRem2014, the 3rd International Conference on Sustainable Remediation, with over 100 global attendees. Currently, SuRF-Italy is developing a technical guidance around operative criteria and practices for implementation of sustainable remediation projects in Italy.

For further information:  
[www.surfitaly.it](http://www.surfitaly.it)



SuRF Canada's mission is:

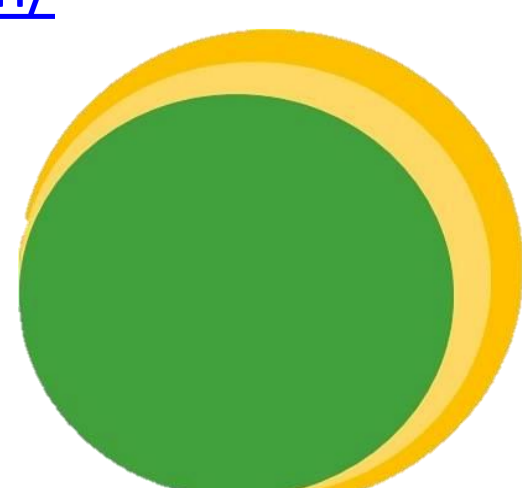
To establish a Canadian network group to promote "sustainable remediation" that aims to give systematic consideration to the three dimensions of sustainability (social, economic and environmental), in decision-making about rehabilitation of and management of contaminated sites. The network will bring together public and private organizations and launch an information and awareness initiative in Canada.

For further information:  
[www.SuRFcanada.org/](http://www.SuRFcanada.org/)  
Contacts:  
- [justin.kelley@aecom.com](mailto:justin.kelley@aecom.com)  
- [stella.karnis@cn.ca](mailto:stella.karnis@cn.ca)  
- [Francois\\_Beaudoin@golder.com](mailto:Francois_Beaudoin@golder.com)  
- [Sebastien.Yelle@tpsgc-pwgsc.gc.ca](mailto:Sebastien.Yelle@tpsgc-pwgsc.gc.ca)



Following an initiative of environmental professionals of industry, consultants and academia, SuRF Brasil (FORESBR) was established in October 2010 in order to promote Sustainable Remediation in Brazil and incorporate this practice in remediation projects. The group meets every quarter and is now in the process of developing a Brazilian Sustainable Remediation Guide.

For further information:  
<https://www.facebook.com/FORESBR1>  
<https://foresbr.wordpress.com/>  
<https://twitter.com/foresbr>



[www.claire.co.uk/surfinternational](http://www.claire.co.uk/surfinternational)