

Turning failure into success – What can we learn when remediation does not go as planned?

NICOLE Network Spring Meeting & Workshop Vienna, 15-17 June 2016

Introduction

There is continuous effort needed to manage land contamination in an effective way, and hence to find ways to optimize the current ways of working. Often, workshops and conferences try to find the solutions in presenting success cases as templates to replicate. Yet, there are a number of remediation projects not meeting the various stakeholder's expectations and thus requiring new thinking to achieve the outcome expected. Owing to the level of trust NICOLE's members have built over time among themselves, it seems possible to have open discussions around projects having encountered obstacles on their way to completion and to learn from these. Therefore the decision was taken to hold a workshop on the non-successes, and even on the failures or on "what goes wrong" and what we can learn from this for the next project or the future.

The first topic to deal with is the definition of "failure" in the context of remediation projects. During the workshop, the results of a questionnaire (recently sent around) will be communicated, together with experiences out of other businesses (lawyers, chemical production). As a first approach, failures can be technical, strategical, due to environmental or regulatory boundary conditions etc.

Examples are: exceeding the budget, disappointing the stakeholders, application of suboptimal or even "wrong" technology, Health & Safety requirements or remediation goals may be finally met, but not within the expected time frame.

We would appreciate if you would to send in an abstract dealing with issues mentioned above with examples of "lessons learned" from these non-success projects. But please be aware that pure success stories will be rejected. The abstract should at least contain a description of the project, what type of "failure" happened and why and what should be done to prevent it from happening again.

Supported by:







Thursday 16 June 2016

CONFERENCE DAY 1

Venue: Austrian Ministry for Transport, Innovation and Technology Radetzkystraße 2; 1030 Vienna

| 08.30-09.00 | Registration |
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| 9:00 | SESSION 1: Opening Chair: Lucia Buvé |
| 9:00 | Karl Kienzl Opening – Towards strategic land management (Environment Agency Austria; Deputy Managing Director) |
| 9:15 | Chairmen Working Groups |
| 9:45 | Overview Working Groups. Hans-Peter Koschitzky & Wouter Gevaerts Structure, goals and details of the Workshop. |
| 10:00 | Keynote speech - to be confirmed |
| <u>10.30</u> | Coffee Break |
| <u>11:00</u> | SESSION 2: Operating Windows and Multi-Angle Cases Chair: |
| 11:00 | Thomas Held (Arcadis - GER) Operating Windows to Improve Remediation Performance. |
| 11:20 | Phil Crowcroft (ERM - UK) Pitfalls for technical Experts in the legal Process used when Remediation Projects go wrong. |
| 11:40 | Philipp Robert (Terra - AT) In-Situ Remediation Failures – predictable or unavoidable? |
| 12:00 | Johan van Leeuwen (SBNS – NL) |
| 12:20 | Evaluation in-situ Remediation Projects at SBNS the Netherlands. Discussion |
| <u>12:30</u> | Lunch |
| <u>14:10</u> | SESSION 3: Multi-angle cases Chair: |
| 14:10 | James Baldock (ERM - UK) Remediation – It's complicated. |
| 14:30 | Barbara Grosso (d'Appolonia - ITA) PCBs Management and Disposal Demonstration Project – Technical Assistance for Zhejiang Province PCB Cleanup (China). |



Thursday 16 June 2016 (continued)

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| 14:50 | Jean-Piere Davit (Golder - ITA) Defect is Treasure – an international Perspective on Remediation Failures. | |
| 15:10 | Dietmar Müller Grabherr (EAA - AT) "Concepts & Project Goals" vs. "Reality": Understanding Remediation Objectives - evaluating Austrian Remediation Projects and adaptive Management Options. | |
| <u>15:30</u> | <u>Discussion</u> | |
| <u>15:40</u> | Coffee break | |
| <u>16:10</u> | SESSION 4: Failures linked with Conceptional Site Models, CSM Chair: | |
| 16:10 | Rick Parkman (Aecom - UK) Case Study of a Site contaminated by Chloroethenes – the Devil is in the Detail. | |
| 16:30 | Alan Thomas (ERM - UK) Remedial Design for in situ Treatment is usually based on a Conceptual Site Model (CSM). | |
| 16:50 | Karin Ehrig (City of Hamburg - GER) To regulate the non regulatable. | |
| 17:10 | Nicolas Jeannee (Geovariances - FR) Assessing the Consistency of estimated contaminated Soil Volumes / Pollutant Masses between Characterization and Remediation Stages: Feedback from real Cases and Key Success Criteria. | |
| <u>17:30</u> | Discussion | |
| <u>17:40</u> | Break till conference dinner | |
| <u>19:00</u> | Conference dinner | |



Friday 17 June 2016

CONFERENCE DAY 2

Venue: Austrian Ministry for Transport, Innovation and Technology Radetzkystraße 2: 1030 Vienna

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| <u>9:00</u> | SESSION 5: Failures linked with Remediation Technology Chair: |
| 9:00 | Katerina Tsitonaki (Orbicon - DK) Injections in Clay: from Lab-Scale to Pilot-Scale to Full-Scale, fail? |
| 9:20 | Klaas de Jong (HMVT - NL) In-situ Remediation – "Dellen Wuyts" The Effect of Soil Vibrations. |
| 9:40 | Charles Pijls (Tauw - NL) Five (un)successful Laboratory and Pilot Tests to treat a chlorinated Solvent Source. |
| 10:00 | Milica Velimirovic (University of Vienna - AT) Guar Gum Stabilized Microscale Zerovalent Iron Particles for in-situ Treatment of CAHs: Lessons Learned from a Pilot Injection Test. |
| <u>10:20</u> | <u>Discussion</u> |
| <u>10:30</u> | Coffee break |
| <u>11:00</u> | SESSION 6: Failures linked with Remediation Cases Chair: |
| 11:00 | Hans-Peter Koschitzky (Vegas - GER) Steam-Air-Injection in fractured Bedrock: Experience and Lessons Learned from a CHC Contaminated Site. |
| 11:20 | Jim Wragg (Geosyntec - UK) The Challenges and Failures Encountered in the Development of Direct- Push High-Pressure Jet Injection for Amendment Delivery in Low- Permeability Zones. |
| 11:40 | Lucia Buvé (Umicore - BE) Immobilization of Metals in Soil: added Value and Limitations. |
| 12:00 | Gavin Grant (Savron - UK) In-Situ Smoldering Combustion (STAR) for the Treatment of Contaminated Soils: Challenges encountered & Lessons Learned in providing a new Remediation Technology to the Industry. |
| <u>12:20</u> | <u>Discussion</u> |
| <u>12:30</u> | Coffee break |



Friday 17 June 2016 (continued)

CONFERENCE DAY 2

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| <u>13:00</u> | SESSION 7: Panel Discussion on what we learned Chair: |
|--------------|---|
| 13:00 | Wouter Gevaerts & Hans-Peter Koschitzky Summary of most Important Failures, and the Reasons behind. |
| 13:15 | Regulator + Academic + SPG Leader + ISG Leader (moderated by Lucia Buvé) Panel Discussion. |
| 14:00 | Closure of the workshop (By Lucia Buvé) Good bye. |
| <u>14:10</u> | Lunch |





NICOLE Organizing Committee

Hans-Peter Koschitzky - Co- Chair, VEGAS Wouter Gevaerts- Co- Chair, Arcadis

Markus Ackermann - DuPont
Bruno van Dunné - SBNS
Dietmar Müller-Grabherr – Environment Agency Austria
Elise Noel – Shell
Rob Rutjes - Lyondellbasell
Alan Thomas - ERM
Niklas Torneman - SWECO

NICOLE Secretariat

For further information on NICOLE membership, workshop program, registration & fees, or any other practical issue with regards to the conference, please contact:

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Venues

| NICOLE Network meeting | Kommunalkredit Public Consulting (KPC), Türkenstrasse 9, 1092 Vienna, Austria |
|------------------------|---|
| Conference & workshops | Venue: Austrian Ministry for Transport, Innovation and Technology Radetzkystraße 2; 1030 Vienna, Austria |
| Conference dinner | To be confirmed |

Registration

Please complete the conference registration form, available online through <u>NICOLE.org</u> and/or the <u>NICOLE secretariat</u>. Deadline for registration: 6 June 2016.

Fees

Participation in the NICOLE 2016 Workshop is free of charge for NICOLE members, and conference speakers. Information on admission fees for other participants can be obtained through the NICOLE secretariat