



NICOLE

Network for Industrially Co-ordinated Sustainable Land Management in Europe



NICOLE spring workshop 2018 Frankfurt Nature Based Remediation

Workshop Program

21 - 22 June 2018, at Infracore Höchst,
Höchst Industry Park, Frankfurt, Germany.



NICOLE

Network for Industrially Co-ordinated Sustainable Land Management in Europe



SITE. EXCELLENCE.

NICOLE Organizing Committee

Horst Herzog (Chairman) - Infraserv Höchst, DE
Laurent Bakker (Vice-Chairman) - Tauw, NL
Jean Pierre Davit - Golder Associates, IT
Niklas Törneman - SWECO, SE
Hans-Peter Koschitzky - IWS Uni Stuttgart, DE
Paul van Riet - DOW, NL
Lida Schelwald - Envision-S/NICOLE ISG Secretary

Jim Wragg - Geosyntec, UK
Gregor Möhring - Ramboll, DE
Yvonne Sutter - Ramboll, DE
Dimitri Vlassopoulos - Anchor QEA, US
Wouter Gevaerts - Arcadis, BE
Sytze Keuning - Bioclear Earth, NL

Venues

Working group & workshop

*Infraserv Höchst, Building B852
Industriepark Höchst
65926 Frankfurt*

Workshop dinner

*Boat tour on River Main including dinner
Frankfurt (city center)*

Registration

Please complete the conference registration form, available online through NICOLE.org and/or the NICOLE secretariat. Deadline for registration: 13 June 2018.

Fees

Participation in the NICOLE & Common Forum workshop 2018 is free of charge for NICOLE members and conference speakers. Information on admission fees for other participants can be obtained through the NICOLE secretariat.

NICOLE Secretariat

For further information on NICOLE membership, workshop programs, registration & fees, or any other practical issue regarding the conference, please contact:

Nan Su (Dutch Sino Business Promotions)
P.O. Box 28249 – 3003 KE Rotterdam, The Netherlands
Phone: +31 (10) 310 0829
E-mail: nan.su@nicole.org



Thursday 21 June 2018

Workshop Day 1

08:30 - 09:00 **Registration**

Opening session - Chair: Horst Herzog

09:00 - 09:10 **Opening & welcome**
Lucia Buvé – NICOLE Chair
Dr. Joachim Kreysing – CEO of Infraserv Höchst

09:10 - 09:30 **Working Group leaders**
Working Group update

09:30 - 10:00 **Horst Herzog - Infraserv**
Nature base solutions against the background of a historical contaminated site

10:00 - 10:15 **Dr. Jörg Martin - Ministry of Environment of Hestia**
Remediation Strategy of contaminated sites in Hestia

10:15 - 10:45 **Coffee break & Poster pitches**

Poster pitches **Tom Bosma - WUR**
Cluadio Albano - CH2M/ Jacobs
Maurice Henssen - Bioclear Earth
Tobias Praamstra - Tauw
David Tsao - BP

10:45 - 11:05 **Paul Bardos - r3 environmental technology ltd**
Delivering and Valuing Benefits from Soft Remediation

Session 1
Characterization - Chair: Jim Wragg

11:05 - 11:25 **Heinrich Eisenmann - Isodetect**
Monitoring Tools for Assessment of Natural Attenuation - Conclusions from 12 Years Practical Application

11:25 - 11:45 **Niels Van Putte - University of Antwerp**
Characterization of subsurface hydrological functioning & design guidelines for future tidal wetland restoration projects

Continues on next page >>



Thursday 21 June 2018 Workshop Day 1

Session 1 continued

- 11:45 - 12:05** **Stacie Tardif** - University of Copenhagen
Evaluation of microbiological community parameters for future integration into ecological risk assessments
- 12:05 - 12:20** **Q&A**
- 12:20 - 13:15** **Lunch & Poster pitches**
- Poster pitches** **Sebastian Kaskassian** - Tauw
 Ron Gestler - Geosyntec
 Mark Mejac - Ramboll
 Jürgen Bader - RSK

Session 2

Regional restoration - Chair: Jean Pierre Davit & Wouter Gevaerts

- 13:15 - 13:35** **Dr. Uwe Gauglitz** - BASF
Encapsulation of former landfill Kesslergrube (Perimeter2) in Grenzach-Wyhlen, Germany
- 13:35 - 13:55** **Roger Jacquet** - Solvay
From sand/gravel pit, landfill to landscape nature use
- 13:55 - 14:15** **Martin Kovar** - AECOM
Composting remediation of PAH contaminated soil for use in landscaping of industrial area
- 14:15 - 14:30** **Q&A**
- 14:30 - 15:00** **Coffee break**



Thursday 21 June 2018

Workshop Day 1

Session 3

Wetlands & Active Sediments - Chair: Niklas Törneman

- 15:00 - 15:20** **Nanne Hoekstra** - Deltares
Frank Pels - Hannover Milieu- en Veiligheidstechniek
Constructed Wetlands for cost-effective plumes
- 15:20 - 15:40** **Frederic Cosme** - Golder
The hyporheic zone acting as a natural attenuation barrier
- 15:40 - 16:00** **Maurice Henssen** - Bioclear earth
Active Sediments: how sediment bacteria help us with groundwater pollution management
- 16:00 - 16:15** **Q&A**

Mix & Match session - Chair: Paul van Riet

- 16:15 - 17:45** **Susanne Laumann**
Proposal: Soil Sealing by Enhance Aluminium and Organic Matter Leaching (SoSEAL) for DNAPL treatment
- Tomas Albergaria**
Proposal: Innovative injection of green-zerovalent iron nanoparticles in contaminated soils
- Irene Jubany Guell**
Proposal: H2020 – new biotechnologies for environmental remediation
- Marco Petrangeli Papini**
Proposal: BioSmart Technology
- Michel Chalot**
Proposal: Revitalizing marginalized industrial lands by cropping fibre plants
- Phil Dennis**
Proposal: Sustainable Bio Remediation from Source Zone to Plume Fringe
- Ed Gatliff**
Proposal: Engineered Phytoremediation-ZVI-recalcitrant Chlorinated Compounds in Groundwater



NICOLE

Network for Industrially Co-ordinated Sustainable Land Management in Europe



SITE. EXCELLENCE.

Thursday 21 June 2018 Workshop Day 1

Closing Session - Chair: Horst Herzog & Lida Schelwald

17:45 - 18:00 **Closing remarks Day 1**

18:00 - 19:00 **Back to hotel & transfer**

19:00 - 22:30 **Dinner & boat tour**

Boat tour on River Main including dinner
(buffet or 3-course menu and drinks at flat rate)
Attendance fee for participants €50,00

Boarding at **Eisener Steg** (Iron Bridge) in Frankfurt City center



Friday 22 June 2018 Workshop Day 2

Session 4 In situ Bioremediation - Chair: Yvonne Sutter

- 08:30 - 08:50** **Gary Wealthall** - Geosyntec
*Enhanced Bioremediation of DNAPL Source Zones:
Evolving Understanding and Increasing Capabilities*
- 08:50 - 09:10** **Jim Day** - CH2M/JACOBS
*Sustainable Shoreline Remediation of Petroleum Hydrocarbons Using an Oleophilic
Bio Barrier for Sheen Control*
- 09:10 - 09:30** **Dimitri Vlassopoulos** - Anchor QEA
Integrating Natural Biogeochemical Processes for In Situ Remediation of Inorganics
- 09:30 - 09:50** **James Baldock** - ERM
Thermally-Enhanced Biodegradation: A Final Step to Site Closure
- 09:50 - 10:05** **Q&A**
- 10:05 - 10:35** **Coffee break**

Session 5 Phytoremediation - Chair: Sytze Keuning

- 10:35 - 10:55** **Sébastien Kaskassian** - Tauw
Phytoscreening case study on a large scale and multisource site
- 10:55 - 11:15** **Dirk Dubin / Mario Clemmens** - Bio2clean
*Bacteria-assisted phytoremediation to treat soils and groundwater polluted with
organics*
- 10:55 - 11:10** **Q&A**



NICOLE

Network for Industrially Co-ordinated Sustainable Land Management in Europe



SITE. EXCELLENCE.

Friday 22 June 2018 Workshop Day 2

Closing session - Chair: Horst Herzog & Sytze Keuning

- 11:10 - 11:40** **Closing remarks**
- 11:40 - 12:40** **Lunch break**
- 12:40 - 14:00** **Site visit Industry Park Höchst by bus**



SITE. EXCELLENCE.

Enabling excellence

For a service company such as Infraserv Höchst, customers are not just partners; they are the focus of everything it does. And its employees – the company's most valuable asset – receive the same treatment. Infraserv has made sustainability an integral part of its philosophy to assure the long-term development of our company, its employees and its customers. By ensuring its business practices are resource- and environmentally friendly, Infraserv is doing its part to pass on a livable world to future generations.

Our desire for sustainability

Energy conservation.

We believe energy conservation begins with energy production: Co generation reduces emissions. And waste-to-energy supplies clean power. Because innovative solutions are the key to combating climate change.

Green energy.

We are bringing one form of clean, sustainably produced energy from Industriepark Höchst to private households: biomethane. But instead of resting on our laurels, our Biomass Task Force is constantly exploring new approaches to sustainable heat and power production.

Zero-emissions mobility.

We may not know what tomorrow's cars will look like, but one thing is clear: They will produce no emissions. At Industriepark Höchst, you find Hesse's first public hydrogen filling station. That means these cars are green, quiet and fun to drive.