



Fall Workshop 2023 in Malmö
24 & 25 October 2023



Title of the workshop

*Innovative solutions for sustainable redevelopment and land stewardship of
contaminated sites and sediments*

(e.g. Cities, real estate, transportation infrastructures, mining and sediments)

- *Background introduction*

NICOLE and Nätverket Renare Mark are proud to present their inaugural joint workshop, dedicated to driving the future of brownfield development and fostering land stewardship across diverse industrial sectors including cities, real estate, transport infrastructure, and mining. This workshop aims to facilitate the exchange of knowledge, foster professional relationships, and explore areas of mutual interest among members of both organizations.

The organizing committee is looking for presentations covering research and development projects, innovative approaches and case studies as well as learning examples. The contributions should highlight one or more of the following topics:

1. Innovative approaches for redevelopment

In this era of climate change and focus on sustainable management, conventional approaches and techniques for redevelopment and the management of land and sediments need to be revisited. There is a strong need for innovative solutions.

Traditional physical and chemical remediation techniques are rather expensive, energy-intensive, use large quantities of groundwater and often require long-term, costly management measures for residual contaminants. The management of land and sediments should be not only aimed at economic benefits, but also at natural and



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societal values. Using innovative approaches, working with nature, the costs and use of resources for the redevelopment of a contaminated site can be significantly reduced, while minimizing the environmental impacts. Additionally, using the concepts of Land Stewardship, the long-term optimization of the natural, societal, and economical value of land is within reach. Innovative approaches for redevelopment and land management can yield added value from the site whilst meeting the requirements of the EU Soil Health Law, which aims to achieve healthy soil by 2050.

With this in mind, we especially welcome abstracts of (former) industrial and post mining sites and sediments, showcases touching on:

- *Technical challenges and solutions for the redevelopment: working with nature, optimizing ecosystem services, circular economy (reuse of materials).*
- *Legislative and societal challenges, drivers, and solutions for sustainable redevelopment.*
 - *Land Stewardship initiatives, valuing the natural and social capital of a site or region.*
- *Innovative approaches for redevelopment of post mining areas.*
 - *The integration of sustainability principles in corporate policies and practices.*
- *The role of emerging contaminants in redevelopment.*
- *Sustainable management of contaminated sediments.*

2. Risk assessment and risk management



Environmental quality is a key determinant of the health of populations and ecosystems. Land stewardship and redevelopment are important factors in the strive for a sustainable society. Urban expansion at the cost of farmland and places of natural interest constitutes a growing topic of discussion in both regulatory bodies and media. The EU will propose a Soil Health Law this year that aims to achieve healthy soils by 2050, which will have to be taken into account by redevelopment projects as a part of the solution in this context. Risk assessments can play an integral part in redevelopment projects to direct the remediation to the contaminants that pose a risk. With this in mind, we especially welcome abstracts of (former) industrial and post mining sites with examples covering the following areas:

- *Projects where the plan for redevelopment have been adjusted to the contamination situation to maximize sustainability and minimize exposure and costs.*
 - *Projects where climate change and its consequences have been considered and is important to the risk assessment.*
 - *Examples of how contaminants that are often diffuse in the urban environment (such as PFAS, PAHs, chlorinated solvents, heavy metals) are handled in this context in risk assessments.*
- *Challenges and solutions concerning handling sustainability and authority demands on risk assessments covering all possible exposure within a long timeframe. Can e.g. POPs be risk assessed or should they always be eliminated?*
- *Examples of how risks that contamination often poses within redevelopment projects, which often are neglected in risk assessments and in regulatory*

guideline values, such as permeation through plastic drinking water pipelines etc., are handled.

- *Innovative approaches to spatialised exposure assessment and exposure ranking.*
- *What does “risk” really mean? Legal aspects on the definition of the term risk to human health and the environment.*

3. Challenges and solutions for (post) mining sites

Post mining sites usually demand specific remediation solutions and land management. Thus, the sources of contamination to be taken into account depend on the type of deposit, the mineral paragenesis and the extraction and processing operations. There are several sites in Sweden where cities or parts of cities have been built upon old mining sites, as well as mining waste being used in building materials for industries and homes. Environmental and economic aspects are other challenges facing post mining sites. What are the lessons learned from post mining sites in Sweden as well as abroad? With this in mind, we invite abstracts with examples covering the following areas:

- *Innovative solutions for tailings and waste*
- *Redevelopment of mining areas*
- *Opportunities for land stewardship/management*
- *Specific legal challenges and opportunities for post mining sites in comparison to other contaminated sites*



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Submission Guidelines:

Authors are required to submit a one -page abstract on the paper they would like to present, together with an outline of the structure of the paper and a short biography.

Abstracts which include case studies are encouraged, particularly those highlighting problems encountered, lessons learned and identified solutions, and should address some of the following questions:

- *What is being done differently to traditional approaches?*
- *How does the approach enhance the sustainability of the project?*
- *How does the proposed paper bring innovation to site characterization?*
- *How has the case study embraced sustainability concepts such as the circular economy, the triple- P (economic, social and environmental) bottom line and development of natural capital?*
- *What is still needed in terms of knowledge development and transfer?*

Deadlines:

Abstracts should be sent by e-mail to [Chayenne van Dijk](#) before Friday the 1st of September. Afterwards the organizing committee will evaluate the abstracts. The authors of the abstracts will be notified if they have been selected by Friday the 22nd of September.

The location of the workshop:

The workshop will be organized in Slagthuset.

The address is: Carlskatan 12e, 211 20 Malmö, Sweden.



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Organization committee members:

Anna Kruger - Västerås stad

Chantal Broeken - WSP

Hans Slenders - Arcadis

Johanna Moreskog - Ramboll

Lill Thunberg - Länsstyrelsen

Kalmar län

Martin van der Hop - Royal Philips

Niklas Törneman - SWECO

Serge Brouyère - University of Liège

Volker Kelm - Gislaveds kommun Peter

Harms-Ringdahl - EnviFix AB

Anneli Liljemark - Liljemark

Consulting

Christina Rydell Ahlström- Morris

Law

Fritiof Pröjts Erlandsson - WSP

Lena Torin - WSP

Linnea Ljung - Setterwalls

Nathalie Velly - INERIS

Rogier de Waele - GreenSoil

Sofia Brodd - SWECO

Laura Vredenburg - Arcadis



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