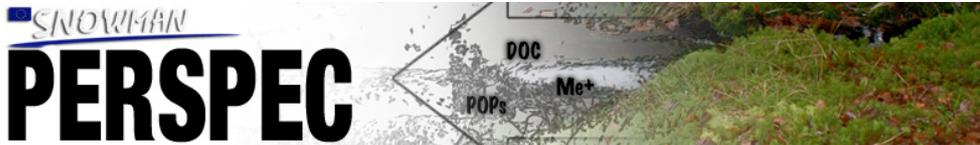


The PERSPEC project:



Perspectives on mobilisation of prioritised contaminants in soil

Aims and objectives

The aim of the PERSPEC project is to compile current knowledge on how atmospheric and hydrological processes influence the mobilisation of contaminants to, within, and from soils.

The focus is on priority substances according to the European Water Framework Directive (WFD) such as metals (e.g. mercury, lead and aluminium), and persistent organic pollutants (POPs; e.g. polycyclic aromatic hydrocarbons (PAHs), brominated diphenylethers, chlorophenols, chlorobenzenes, PCBs and dioxins).

Metals and organic contaminants have often been studied separately in the past, mainly due to their different chemical properties. However, in the environment they coexist and are subject to the same environmental processes.

By including both metals and organic contaminants in the same research framework, differences as well as similarities in their environmental fate and response to climate factors will become apparent, and different scenarios may be explored.

Research activities

The primary objective of the PERSPEC project is to:

- Deliver a compilation of current knowledge regarding soil system processes with focus on contaminant mobilisation;
- Gather data from a well defined background level system;
- Produce predictions of contaminant mobilisation by using state-of-the-art modelling tools;
- Identify key processes and parameters needed to expand the necessary knowledge and improve the models.

About PERSPEC

Dear readers,

PERSPEC will focus on processes and variables that are important for the transport of environmental pollutants in soil and water. Throughout Europe we see changes in, for example, precipitation and temperature and these climate factors greatly impact how different pollutants move through the environment.



The PERSPEC project will include studies on both metals and persistent organic pollutants as they are subject to the same environmental processes. The project will focus on the Krycklan catchment area in Vindeln, Sweden, where hydrological and biogeochemical data has been collected over a period of 30 years.

We hope that the PERSPEC project may provide valuable input in future strategic research activities within the European Union regarding: Transport and fate of diffuse contaminants over larger areas and longer periods of time; Spatial and temporal changes of soil processes and parameters; and Transfer mechanisms from soil to other environmental compartments.

Yours sincerely,

M. Tysklind, project coordinator

PERSPEC contact

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PERSPEC facts

PERSPEC is a research project trans-nationally funded under the SNOWMAN umbrella by:

Austria, Sweden and United Kingdom.

The project partners are:

- **Umeå University**,
Umeå/Sweden
- **Lancaster University**,
Lancaster/UK
- **Graz University of Technology**,
Graz/Austria

Project duration: 12 months

Project start: 13.12.2007

SNOWMAN facts

SNOWMAN is a network of national funding organisations and administrations providing the research funding platform for soil and groundwater bridging the gap between knowledge demand and supply.

The consortium is funded by the European Commission's 6th Framework Programme for Research and Technological Development (RTD) and includes 7 partners from seven different EU countries representing national activities in the field of SNOWMAN.

Project duration:

January 2004 - June 2009

Coordinator:

Dr. Stefan Vetter, BMLFUW/Austria

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Research location

The PERSPEC project will profit from the results obtained at the Krycklan catchment study. Krycklan is a catchment area with little human impact where long-term hydrological and biogeochemical monitoring has been conducted in combination with 30 years of process based research, thereby allowing the effects of climate change on contaminant mobilisation in soils to be explored.

The findings from this study will be applicable to a wide variety of north European catchment systems and will provide an integrated, process-based understanding of base-line contamination of major catchments from "atmosphere to estuary".

Dissemination highlights

A workshop will be organised (preliminary held at Lancaster University, UK) at the end of the project where the deliverables of the PERSPEC project will be presented, alongside with computed models.

Information about the PERSPEC project will be made available on EUGRIS - the web portal for soil and water management in Europe

<http://www.eugris.info/>

, the Krycklan website

<http://ccrew.sek.slu.se/>

, and the respective project partners' websites.

Perspectives

Soil system processes and the mobilisation of contaminants in soil are connected to the hydrological conditions and processes of the soil. Consequently, there is a lot to gain from combining the scientific expertise from countries that share soil, hydrological and climate attributes and in this respect are likely to be affected similarly by future changes.

We sincerely hope that the PERSPEC project can function as a starting point for such a gathering of researchers and that the outcome of the PERSPEC project may provide valuable input in future strategic research activities within the European Union.