



Red line & Topics AquaConSoil 2021

Red line

Strong connections for Sustainable Use and Management of Soil, Sediment and Water Resources

We live in a time of transitions, facing and dealing with climate change, population growth and many other challenges. The awareness grows that a healthy soil-sediment-water (SSW) system is fundamental to overcome societal challenges and meet societal needs. To retain and promote a vital and healthy soil-water system and at the same time facilitate these transitions, we need to connect:

- **People:**
 - Science, policy, practice and citizens;
 - Students, young professionals and experienced professionals;
- **Disciplines:**
 - The soil-water system and societal challenges, needs and Sustainable Development Goals (SDG);
 - Financial, legal, and organizational institutions and arrangements;
- **Approaches and opportunities:**
 - Smart approaches, including data, information, technologies, models and instruments;
 - Shared objectives and business opportunities to new business cases;
- **Scales**
 - Local, regional scale and countries and continents;
 - Operational, tactical, strategic level: short, mid and long-term actions, policy and goals;

Topics

1 Vital and resilient soil-sediment-water systems

A vital and resilient SSW-system is both a solution as a boundary condition to facilitate large transition and achieve societal/sustainable development goals. Concepts as natural capital and land stewardship give substance to sustainable management of this system, in relation to human activities and objectives.

Topics under this theme are:

- 1a) **Land stewardship: Prevention, restoration and better implementation of land and the SSW-system**
- 1b) **Circular economy approaches**
- 1c) **To achieve Sustainable Development Goals (SDG) and particular Land Degradation Neutrality (LDN)**



2 Smart solutions for urbanizing areas of the world

Climate change, urbanisation and industrialization increase pressure on the limited above and underground space. This calls for smart, integrated solutions and approaches, e.g. in spatial planning and the use of ecosystem services.

Topics under this theme are:

- 2a) Nature-based solutions and ecosystem service implementation and valuation**
- 2b) Sustainable use & spatial planning of the subsurface**
- 2c) Balancing groundwater quality and quantity (European Water framework Directive, competing uses, floods and droughts)**
- 2d) Restoring urban – rural balances (restoring nitrogen and other mineral cycles, urban farming, etc)**

3 Smart tools and methods to connect people, planet and profit

The world is in transition. Along the need to make new connections between different communities of knowledge and practice, innovations emerge fast and change our possibilities. How can new tools and methods be usefully applied to soil, sediment, water and land management and sustainable solutions? This theme focuses on new socio-economic and ecologic and political developments and opportunities and industrial leadership.

Topics under this theme are:

- 3a) Policy and legal tools (a.o. the European Green Deal)**
- 3b) New Business cases**
- 3c) Decision support tools for sustainable land management**

4 Integrated management of contaminated land

This theme has the objective to discuss novel frontrunning strategies and integrated management of contaminated land and brownfields. There are many technical, socio-economical and legal barriers to start remediation or redevelopment and to bring these sites back into beneficial use, which calls for an integrated approach. How can these barriers be overcome and what are the drivers of change? Especially welcome are case studies (brownfields and megasites “2.0”: ports, industrial and urban areas in a circular economy context).

Topics under this theme are:

- 4a) Managing pollution in the water-soil-energy-food-nexus**
- 4b) Area-based risk approaches, uncertainties and scales of pollution pathways**
- 4c) Upgrading contaminated and degraded land**

5 Sustainable remediation technologies in context of the EGD and energy transition

The advances in remediation technologies for existing and emerging contaminants remain of high interest for AquaConSoil, especially in the context of the European Green deal and the energy transition. This theme aims to exchange the progress in remediation technologies that reduce the carbon footprint. New technologies and inspiring examples are



welcome for measuring and monitoring, smart combinations to reach multiple (environmental and societal) goals, cheaper and more effective and environmentally safe and friendly solutions.

Topics under this theme are:

- 5a) New low-carbon solutions for conventional and emerging contamination**
- 5b) Advances in measuring and monitoring and the data expansion of contamination**
- 5c) Dealing with information on, and action perspectives for, emerging and diffuse contamination**