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EU Strategy for the Baltic Sea Region, EUSBSR Macro-regional workshop on

PHARMACEUTICALS IN THE ENVIRONMENT (PIE)– Monitoring, consumption, technologies and policies

Arranged by EUSBSR PA Hazards' BSR-Pharma Platform

@Swedish Environmental Protection Agency, Stockholm, Sweden,

19th September 2019, 10:00-17:00

Registration: By invitation until 19th August. Registration link will be sent separately.

Scope

Pharmaceutical residues in the Baltic Sea are causing concern as the full impact for the marine environment is still unknown. The Baltic Sea ecosystem is particularly sensitive to pharmaceutical pollution because of its low biodiversity, with low functional redundancy and many species experiencing an increased physiological stress due to the brackish water environment. The water exchange rate in the Baltic Sea is slow, meaning that there is a long retention time for persistent substances. This makes the Baltic Sea ecosystem more susceptible to hazardous substances in comparison with other marine areas.

Human and livestock excretion of drugs and metabolites following consumption, as well as disposal of unused pharmaceuticals, are pathways to the environment. Many pharmaceutical substances cannot be effectively removed by conventional waste water treatment. To reduce emissions, measures are needed on both national and regional level.

The main pathway of human consumed pharmaceuticals to the marine environment is via direct discharges of effluents from municipal wastewater treatment plants (MWWTPs) in coastal areas as well as via rivers carrying effluents from inland MWWTPs. Other sources include land application of sewage sludge, whereby pharmaceuticals may leach into surface and ground waters. Pharmaceuticals also enter the environment via agriculture, aquaculture and veterinary practices.

We invite relevant stakeholders from the Baltic Sea Region to a workshop on wastewater treatment and pharmaceuticals in the environment.

Objective

The objective of this workshop is to jointly identify common challenges and solutions for pharmaceuticals and the environment in the Baltic Sea region, with a focus on pharmaceuticals in Waste Water Treatment Plants (WWTP) systems.

This includes

- the need and availability of analysis and monitoring methods



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- WWTP technology
- Economic and policy considerations for technology choice

The workshop programme features are based on most recent transnational cooperation in a number transnational projects under the umbrella of the BSR Pharma platform, a flagship in the EU Strategy for the Baltic Sea Region, EUSBSR.

Target group

This workshop is focusing on the WWTP-stage in the pharmaceutical challenge, the workshop is of interest for all stakeholders involved in the topic of pharmaceuticals in the environment: Representatives from local, regional, national and pan-Baltic agencies and organisations, responsible or working for policy development, urban planning, waste and water management, dealing with procurement of WWTPs, public administrators handling waste water and pharmaceuticals, policy makers within the environmental field, physicians prescribing drugs, members of drug committees at hospitals and county council levels, regulators etc.

Forms of participation

There are two forms of participation in the workshop:

1. Physical participation at the premises of Swedish EPA, Virkesvägen 2, 196 48 Stockholm, Hammarby Sjöstad, Sweden. The venue is close to the metro station Gullmarsplan. The workshop is FREE OF CHARGE.
2. Participation by Skype/ video will be offered. Technical information on how to link up to the workshop will be send to participants in due time.

Background

In 2017, EUSBSR PA Hazards established a flagship initiative, the Pharmaceutical Platform EUSBSR <http://www.swedishepa.se/Environmental-objectives-and-cooperation/Cooperation-internationally-and-in-the-EU/International-cooperation/Multilateral-cooperation/Baltic-Sea-Region-EUSBSR/Policy-Area-Hazards/A-cooperation-to-reduce-pharmaceuticals-in-the-Baltic-Sea/>

The Baltic Sea Pharma platform brings together projects and stakeholders from the whole region to assist knowledge-sharing, increase effectiveness, streamlining activities and support regional policy development.

The same year a status report on pharmaceuticals in the environment in the Baltic Sea Region was published by UNESCO and HELCOM <http://www.helcom.fi/Lists/Publications/BSEP149.pdf> . The report was developed jointly by Helcom and EUSBSR PA Hazards. It served as a case study within the framework of UNESCO Emerging Pollutants in Water Series under UNESCO-IHP's International Initiative on Water Quality (IIWQ) Project on 'Emerging Pollutants in Wastewater Reuse in Developing Countries'. The results showed a lack of appropriate methods of analysis for some substances, presence of common pain killers (NSAIDs) and detection of medicines affecting the brain. The study indicated a further need for research and actions to prevent emissions of pharmaceuticals in the Baltic sea. The EU Strategy for the Baltic Sea Region (EUSBSR) <https://www.balticsea-region-strategy.eu/> is a macroregional strategy for cooperation for an socially, economically and



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ecologically health Baltic Sea region. The EUSBSR's Policy Area Hazards ("PA Hazards") works to reduce the input and effects hazardous substances in the Baltic Sea and is led by the Swedish Environmental Protection Agency on behalf of the Swedish government office <http://www.swedishepa.se/Environmental-objectives-and-cooperation/Cooperation-internationally-and-in-the-EU/International-cooperation/Multilateral-cooperation/Baltic-Sea-Region-EUSBSR/Policy-Area-Hazards/> .