PARTNER SEARCH FORM

DATE: 09.11.2010

PROJECT INFORMATION

TITLE: Pollution Impact Assessment of Municipal and Industrial Effluents Containing Micropollutants upon Danube River and Delta and Mitigation Solutions

ACRONYM: AQUAMICROTREAT

SUMMARY:

The main objective of the proposal is to identify, monitor and evaluate treatment options of micropollutants discharged into emissaries by municipal and industrial effluents and estimation of pollution risk on Danube Delta.
The main groups of micropollutants that will be subjected to control are: pesticides, pharmaceuticals, surfactants, personal care products, perflorinated compounds and their by-products. Analytical methods for identification of micropollutants and their transformation will be instrumental.
Ecotoxicological assessment of environmental risk will be accomplished by toxicity tests.
The proposed methods for treatment of micropollutants and their metabolits will be: nanofiltration, adsorption, ion exchange, coagulation, biological treatment, advanced oxidation.
Risk impact of micropollutants on Danube Delta benthic and pelagic fauna.

KEYWORDS*:

multi-risk evaluation and mitigation strategies, risk assessment of chemicals and alternative strategies for testing, micropollutant treatment

CALL: BS-ERA.NET 2010

NAME(S) of the PARTNER(S) INVOLVED:

National Research Institute for Industrial Ecology - ECOIND, Romania

SCIENTIFIC AND TECHNOLOGICAL EXPERTISE OFFERED*:

INCD ECOIND is a Romanian National Research and Development Institute operating in the field of environmental science and technology. The institute profile, permanently adapted with internal and external environmental market demand, is based on researches and services in the environmental protection domain:
- pollution control of water, air, soil and waste. The instrumental analytical department has modern and performant equipment: GC coupled with ECD, HPLC coupled with MVD and FLD detectors, HRGC-HRMS, HPLC-MS/MS, GC-MS ionic trap. The biotests department performs biodegradability assessment, conventional biotests (acute lethal, subacute and chronic toxicity bioassay), microbiotests (microtox, algaltox, daphtox, MARA) on surfantants, pharmaceuticals, heavy metals, etc.
- advanced and applied research, the majority experimental, designated to evaluate, control, prevent, decrease wastewater pollution in all domains, from energetic area, processing industry to municipal influents. Our institute has great experience in:
- elaboration of applicative and fundamental research in the field of AOPs with UV/TiO_2, UV/H_2O_2, solar photocatalysts and nanomembranes for the treatment of organophosphorus pesticides, BTEX, chlorinated

aromatics, dyes, emulsified oil, lignosurfactants and metallic ions from polluted water. The biotechnological department has aerobic and anaerobic pilot installations for organic pollutants (micropollutants), advanced nitrification, phosphorus and nitrogen removal;
- pollution assessment impact and environmental balance.
- environmental technologies (drinkable waters, industrial and municipal waste waters, soils, wastes);
- environmental management and quality;
- security and work safety;
- consultancy and training, competency evaluation in the above mentioned fields;
- technical expertise, technical assistance.

INCD ECOIND is a certified body in accordance with ISO 9001:2000 and its laboratories are ISO 17025:2005 accredited for chemical-physical analysis and BPL /lethal toxicity tests. The institute is associated member to scientific and professional, national and international associations, is accredited as national research institute by the Ministry of Education and Research and attested for environmental protection services by the Ministry of Environment.

The institute has a long tradition in environmental protection, setting the highest quality standards in its area of expertise and being considered both a trusted, dependable partner and a reliable source of expertise in the field. Also, the institute is organizing the international Symposium "Environment and Industry", which is held on a two year basis.

PARTNER SOUGHT

SCIENTIFIC AND TECHNOLOGICAL EXPERTISE REQUESTED:

Partners with expertise in control, treatment, risk assessment of micropollutants discharged in emissaries by municipal WWTPs.

EXPECTE D CONTRIBUTION TO THE PROJECT:

- Micropollutants and their transformation products analysis.
- Sensors and biosensors for endocrine disrupting chemicals.
- Nanofiltration membranes.
- Pollution risk studies.

ORGANISATION TYPE*:

X Higher Education X Research Institute

X R&D Company X SME ☐ Other

HOW MANY PARTNERS ARE REQUIRED?

CONTACT PERSON

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COUNTRY* : ROMANIA

*** mandatory fields**