

# **CZECH TECHNICAL UNIVERSITY IN PRAGUE (CTU)**

**Matchmaking Event May 2013**

**EEA**



# On-line monitoring and degradation of PAH (Polycyclic aromatic hydrocarbon) pollutants

Elimination of PAH pollution (with focus on tetra-aromatic compounds) from sea-water and sediments by means of:

- *Biodegradation - novel methods*
- *Photodegradation – novel methods*
- *Bioreactor – Proof of Concept*

# Methods Applied

- Isolation and selection of microbial strains (bacteria, yeast, white-rot fungi) capable of PAH biodegradation in sea-water and sea-sediments
- Biodegradation kinetic tests with simulated sea-water
- Bioremediation pot-experiments of contaminated sediments
- Kinetic tests of PAH photocatalytic degradation in sea-water
- Proposal and semi-pilot (15-liter) verification of the combined biodegradation-photodegradation process

# Participants in the project

## Czech side

1. **CZECH TECHNICAL UNIVERSITY  
IN PRAGUE/CTU**  
Department of Science and  
Research (*rpokorny@vc.cvut.cz*)
2. **Jan Evangelista Purkyně  
University/UJEP**  
Faculty of Environment
3. **Academy of Sciences Czech Rep.,  
Prague/ ICPF**  
Institute of Chemical Process  
Fundamentals
4. **Czech University of Life Sciences  
Prague/CULS**  
The Faculty of Agrobiological Sciences,  
Food and Natural Resources

## Norwegian side

1. Research
  1. Universities
  2. Innovation Centres
  3. Private Research Institutions
2. Municipalities
  1. Sewage treatment works
3. Industries
  1. Crude oil
  2. Chemical components