PARTNER SEARCH FORM

DATE:
14. December 2010

PROJECT INFORMATION

TITLE: Oil pollution detection along the transport routes in the Black Sea

ACRONYM: OPENSEA

SUMMARY: Black Sea has one of the most intense transport traffic of the world's seas. Along these routes and near the coastline there is a strong pollution due to oil residues escaped with intention or not from ships. Oil pollution on sea water has a strong impact on the ecosystem and affects both flora and fauna at all levels: surface and in depts.
The objective of the project is to develop an operational system for the detection and evaluation of such oil spills in open sea and in coastal zone.
The detection will have 3 stages:

- Remote sensing (using satellite images in radar and visible) to determine the location of the affected areas , all integrated in a GIS system
- Local detection (using classical methods combined with spectral detection) to determine the type of oil and the source of the pollution
- Pollution source identification by comparing the traffic logs with the position /time of occurrence/ propagation speed of the oil film . A supplementary investigation by obtaining the spectral signature of the detected oil spill, we can determine the origin of the product and thus determine the company which is transporting this type of oil .

The project aims to provide the national maritime authorities with a toolbox of procedures and instruments that will enable them to perform oil pollution management for the national coastal areas and for international areas too and to help them detect in short time any oil pollution events, identify and analyse the risk and the damage, and also to detect the source of the pollution .

KEYWORDS*: Oil pollution , Coastal areas, Remote Sensing, GIS, Spectral analysis , environmental management, water quality

CALL: BS-ERA.NET 2010

NAME(S) of the PARTNER(S) INVOLVED:
OPTOELECTRONICA 2001 S.A.

SCIENTIFIC AND TECHNOLOGICAL EXPERTISE OFFERED*: Remote Sensing , spectral analysis , sea water currents modelling , spectral analysis

PARTNER SOUGHT

SCIENTIFIC AND TECHNOLOGICAL EXPERTISE REQUESTED:

- **(Marine research entities) sea water quality monitoring techniques, oil spills detection and mitigation techniques, environmental monitoring**
- **GPS operators, naval surveillance,**

- **(National Maritime authorities) Sea traffic monitoring , commercial transport routes in Black Sea ,**
- **Black Sea legislation relevant to environmental monitoring**
- **Universities and research institutes with expertise in remote sensing, GIS, water quality , mathematical modelling , web tools , communications**
- **Maritime transport companies**

EXPECTE D CONTRIBUTION TO THE PROJECT:

ORGANISATION TYPE*:

☒ Higher Education ☒ Research Institute

☒ R&D Company ☒ SME ☒ Other

HOW MANY PARTNERS ARE REQUIRED?
We need at least 4 other partners

CONTACT PERSON

NAME* : Ph.D. Eng. Alexandra Caramizoiu

TELEPHONE* : +40 21 457 4498

FAX: +40 21 457 4204

E-MAIL*: alex@optoel.ro

INSTITUTION*: OPTOELECTRONICA 2001

ADDRESS*: no 4. Atomistilor Street , Magurele, 077125

COUNTRY* : Romania

*** mandatory fields**