



This workshop in conjunction with Ocean Business 2009 event (<http://www.oceanbusiness.com>) will give an overview of the state of the art in environmental risk management tools, sensors aimed at water quality monitoring, and meeting the information need for implementation of the Water Framework Directive (WFD).

Workshop objectives

- Identify synergies between ongoing EU projects within environmental risk management
- Identification of users' requirements for applications of environmental information from *in situ* stations, buoys, aircraft and satellite sensors and modelling predictions for risk management
- Live demonstration of current systems and services
- Round table discussion with prospective users, focusing on contributions meeting the information needs of the Water Framework Directive.

Preliminary workshop agenda

- | | |
|-------------|---|
| 08.30-09.00 | Registration |
| 09.00-09.30 | Introduction of EU FP6 WARMER and InterRisk projects - Luca Sanfilippo (SYSTEA, Italy) and Stein Sandven (NERSC, Norway) |
| 09.30-10.50 | WARMER and InterRisk presentations - 15 min. each + 5 min. q/a
"Voltammetric screen-printed sensors for heavy metals and phenols. Achievements and future prospects" - Arben Merkoci (UAB, Spain)
"Multiparametric automatic detection of water quality chemical parameters using a strip of miniaturized ion-selective potentiometric electrodes working in a modular flow-cell" - Leszek Opalski, (WUT, Poland)
The InterRisk system concept - a distributed web GIS - Torill Hamre (NERSC, Norway)
Capabilities of different web GIS tools - Declan Dunne (CMRC, Ireland) |
| 10.50-11.10 | Coffee break and WARMER poster session |
| 11.10-11.30 | 'European COstal sea Operational observing & forecasting system Project (ECOOP)' - Ole Krarup Leth (DMI, DK) |
| 11.30-11.50 | "Marine Environmental Decision Support: an overview of advances in sensors, sensor networks, applications and architectures" - Zoe Roberts (BMT Cordah, UK) and Jonathan Williams (Marine SouthEast, UK) |
| 11.50-12.10 | 'Using the HUMBOLDT framework to improve the exchange of oil spill data and information' Mark Charlesworth (British Oceanographic Data Centre) |
| 12.10-12.30 | 'Continuous monitoring in Venice Lagoon' - Jesús Cisneros-Aguirre (Servizio Informativo Magistrato alle Acque, Consorzio Venezia Nuova) |
| 12.30-13.30 | Lunch break and WARMER poster session |
| 13.30-15.30 | Technical demonstration presentations - 25 min. each + 5 min. q/a
The new in-situ chemical probes and the water quality monitoring platform - Pompeo Moschetta (SYSTEA, Italy) and Ian Thompson (YSI-Hydrodata, UK)
WARMER in-situ and remote data integration - Alastair Allen, (University of Aberdeen, UK)
InterRisk demonstration of regional portals for algal bloom and oil spill monitoring and forecasting - Steve Groom (PML, UK)
Service Support Environment (SSE) for combining satellite Earth observation products with in situ data and model predictions - Stein Sandven (NERSC, Norway) |
| 15.30-15.45 | Coffee break and WARMER poster session |
| 15.45-16.45 | "Can recent advances in monitoring technology ease Water Framework Directive monitoring tasks?" - Round table discussion with invited environmental authorities |
| 16.45-17.00 | Workshop summary and conclusion. |

Workshop & European Union Water Framework Directive

The European Union Water Framework Directive (WFD -2000) has created a demand among government monitoring agencies and legislative bodies throughout Europe for water quality monitoring systems that are able to monitor reliably a larger number of water quality parameters at regular intervals. This requires trained personnel, reliable instrumentation and in the long run high laboratory costs to achieve the expected monitoring goals. To achieve the WFD-targets, there is a need for development of cost-effective instrumentation using advanced technology and shifting to automation to reduce overall analytical costs. The actual growing demand is requesting more and more that water quality is to be measured continuously and in real time. **Water Risk Management in EuRope (WARMER)** and **InterRisk** are two research projects funded by the EC 6th Framework Programme, under the IST-Environmental Risk Management cluster aiming to fill-up some of these existing gaps in automated water quality control and also to fulfil the growing demands in real-time monitoring to minimize effects from accidental spills, which is also a growing problem in many Asian rivers and coastal areas.

Project background

WARMER project (<http://www.projectwarmer.eu>) is an interdisciplinary project to create an extended system for real-time water quality monitoring, with the main objective to develop a real time water quality monitoring system for Environmental Risk Assessment. The final result is going to be a field deployable monitoring platform that could be effectively used for water risk management, based on a set of modular multiparametric *in-situ* probes. Field measurement data are linked to remote sensing Earth observations using a Web based management system. The project aims at developing an integrated information system comprised of *in situ* stations, satellite remote sensing and information integration for risk management in both coastal and inland aquatic environments.

INTERRISK project (<http://interrisk.nersc.no>) addresses the need for better access to information for risk management in Europe, both in cases of natural hazards and industrial accidents. The overall objective is to develop a pilot system for interoperable GMES monitoring and forecasting services for environmental management in marine and coastal areas. The InterRisk pilot will consist of an open system architecture based on established GIS and web services protocols, and the InterRisk services to be implemented for several European regional seas. The InterRisk pilot system and services will be validated by users responsible for risk management in case of oil spills, harmful algal blooms and other marine pollution events, in Norwegian, UK/Irish, French, German, Polish and Italian coastal waters.

Organizing committee

- Alastair Allen (UK)
- Versha Carter (UK)
- Andrzej Filipkowski (Poland)
- Steve Groom (UK)
- Amara Gunatilaka (Austria)
- Arben Merkoci (Spain)
- Torill Hamre (Norway)
- Lasse Pettersson (Norway)
- Stein Sandven (Norway)
- Luca Sanfilippo (Italy)
- Ian Thompson (UK).

Participation

- Venue: National Oceanography Center, Southampton, 4th floor, room 344/32
- Participation is free of charge and is limited to 75 persons; attendance will be held on "first come first served" basis.
- Registration will be on-line through the projects Web sites or connecting directly to the following address: <http://www.abdn.ac.uk/water-quality>
- The deadline for proposing scientific contributions as presentations or posters is 20th February 2009; posters abstracts will be published on-line within 20th March.

For any additional information about the venue site, available hotels and maps, please visit the Web site <http://www.oceanbusiness.com>

Workshop contact: , amarasinha.gunatilaka@poyry.com



WARMER <http://www.projectwarmer.eu>

Coordinator: Luca Sanfilippo
SYSTEA SpA
I-03012 Anagni, Italy



European Commission
Information Society and
Media DG
Project officer: Antonios
Barbas
B-1049 Brussels, Belgium



InterRisk
<http://interrisk.nersc.no>
Coordinator: Stein Sandven
**Nansen Environmental and
Remote Sensing Center**
N-5006 Bergen, Norway