

ALLIANCE-NERIS Workshop on

Towards improving radiological assessments and management: Big data sets, spatial distribution and source to sink modelling

28th-29th March. BfS, Munich, Germany

Objective of the workshop:

The workshop is considering a joint research priority arising from the ALLIANCE and NERIS recent gaps analyses. The objective is to establish a consensus on the questions still to be addressed and to recommend future research priorities.

A specific objective of the workshop is to address the spatial redistribution of radionuclides, focusing on water- and solid-mediated fluxes of radionuclides from the source to the ocean. The workshop will explore how to develop a holistic understanding of key processes to improve radiological impact assessment and management. The workshop will also address issues around using large volumes of possibly heterogeneous data and combining model predictions with monitoring results in an optimized way.

The workshop will result in a statement paper that will play a role for inspiring responses to the EURATOM Call as it is described in the Work Programme 2018 - NFRP-8. This workshop will also be a good opportunity to enlarge networking at the European level.

Programme:

Wednesday 28th March, 2018

Time	Title	Lecturer
Introductory session		
12:00 – 12:30	Welcome and introduction of the Workshop	Jacqueline Garnier-Laplace (IRSN - ALLIANCE) and Thierry Schneider (CEPN - NERIS)
12:30 – 13:00	What is at stake for the development of a holistic approach for the management of radioactive pollution?	Mélanie Maître (CEPN, France)
13:00 – 13:20	Questions and discussion	

Wednesday 28th March, 2018 (Cont.)

Session 1: <i>Processes and environmental factors influencing the water- and solid-mediated fluxes of radionuclides from source to ocean: Improving the environmental impact assessment and management considering temporal and spatial issues.</i> Chairs: Martin Steiner (BfS - ALLIANCE), Damien Didier (IRSN - NERIS)		
13:20 – 13:50	Scene setting	Jacqueline Garnier-Laplace (IRSN - ALLIANCE) and W. Raskob (KIT - NERIS)
13:50 – 14:20	Integrated watershed approach in support of environmental impact assessment including remediation (AMORAD French project (2013-2019).	Olivier Evrard (LSCE, France)
14:20 – 14:35	Source-sink modelling for non-radioactive pollutants	Nick Beresford (NERC-CEH, United Kingdom)
14:35 – 14:50	Relevant activities in the CONFIDENCE project	Nick Beresford (NERC-CEH, United Kingdom)
14:50 – 15:20	<i>Coffee and tea</i>	
15:20 – 15:35	Impact of hypothetical radioactive releases in the Belgian inland rivers-sea continuum.	Fabricio Fiengo Perez (SCK•CEN, Belgium)
15:35 – 15:55	Application of countermeasures in freshwater ecosystems	Jim Smith (UoP, United Kingdom)
15:55 – 16:15	Urban hydrology	TBC
16:15 – 16:30	Hydrological model chain the JRODOS Decision Support System	Wolfgang Raskov (KIT, Germany)
16:30 – 17:00	Modelling of suspended riverine sediment fluxes at global, regional and local scales: major controls, anthropogenic perturbations and associated pollutant fluxes from land to sea	Wolfgang Ludwig (CEFREM, France)
17:00 – 17:30	The Rhone sediment observatory : evaluation and communication on the fluxes of particulate contaminants at the basin scale	Olivier Radakovitch (IRSN, France)
17:30 – 18:30	Group work on Session 1	

Thursday 29th March, 2018

Time	Title	Lecturer
09:00 – 09:30	Group work reports and conclusions Session 1	
Session 2: <i>Combination of model predictions and measurements (big data sets) in various situations.</i> Chairs: Lieve Sweeck (SCK•CEN - ALLIANCE), Spyros Andronopoulos (NCSR - NERIS)		
09:30 – 10:00	Scene setting	Nick Beresford (NERC-CEH - ALLIANCE) and Spyros Andronopoulos (NCSR - NERIS)
10:00 – 10:30	Big Data platform and prototype solutions for all phases of the data and processing lifecycle in relation to monitoring / modelling applications	Andreas Ikononopoulos (NCSR, Greece)
10:30 – 11:00	Monitoring strategies to support model evaluations in emergency situations: some insights from HARMONE WP4	Johan Camps (SCK•CEN, Belgium)
<i>11:00 – 11:30</i>	<i>Coffee and tea</i>	
11:30 – 11:50	Data assimilation: availability of (enough/good) data during and after release	Damien Didier (IRSN, France)
11:50 – 12:10	Big sets of modelling data available from preparedness phase in emergency context: use in different contexts to support countermeasure strategies	Florian Gering (BfS, Germany)
12:10 – 12:25	Radionuclide wash-off from contaminated watersheds	Laurent Garcia-Sanchez (IRSN, France)
12:25 – 12:45	The European real-time monitoring data exchange platform EURDEP	Marc de Cort (JRC-ISPRA, Italy, EC)
12:45 – 13:00	Development and Application of a Database of Monitoring Data in TERRITORIES'	Justin Smith (PHE, United Kingdom)
<i>13:00 – 14:00</i>	<i>Lunch</i>	
14:00 – 15:00	Group work on Session 2	
15:00 – 15:30	Group work reports and conclusions Session 2	
15:30 – 16:00	Conclusions/Final discussion and closure of the workshop	Jacqueline Garnier-Laplace (IRSN - ALLIANCE) and Thierry Schneider (CEPN - NERIS)