21-25 October 2013: NERIS-TP Training Course on Preparedness for Nuclear and Radiological Emergency Response and Recovery in Trnava, Slovak Republic

28-29 November 2013: PREPARE (WP6) Research Workshop in Lisbon, Portugal

11-12 December 2013: PREPARE (WP7) Table-top exercise in Ljubljana, Slovenia

22-24 January 2014: Final NERIS-TP Workshop

# BNERIS

European Platform on Preparedness for Nuclear and Radiological Emergency Response and Recovery

Issue 6 October 2013

#### EDITORIAL

Three years after its creation, the NERIS Platform is now well structured and is becoming progressively self-sustainable. A legal statute has been adopted last year and currently 19 organisations have decided to financially support the NERIS Platform. Thanks to the effort deployed by Raimo Mustonen as first President of NERIS, we have now set up the general organisation of the association and the number of meetings, workshops and training courses organised under the umbrella of NERIS is proving its vitality and the interest of addressing issues on preparedness for emergency and recovery.

We are now facing new challenges for the development of the NERIS Platform, among other I would like to mention the following ones:

As already mentioned in the previous Newsletter, discussions on the organisation of the research in radiation protection in Europe in the perspective of Horizon 2020 are going on within the OPERRA Project, and NERIS is actively participating to its management board. Possible cooperation and complementary activities with MELODI and ALLIANCE have notably been discussed during the MELODI workshop in Brussels at the beginning of October.

For this purpose, the revision of the Strategic Research Agenda (SRA) is a key issue for the following months. The initial NERIS SRA was prepared two years ago taking into account the key topics to be further investigated due to the Fukushima accident. We have now additional feedback on the consequences of the accident and most of the European countries have re-considered their emergency and recovery strategies. In this context, we have already started the process of up-dating this SRA and fruitful discussions have been engaged with the NERIS R&D committee. This is therefore a key challenge for us to produce this new version of the SRA to cope with the various dimensions of the research in this field, including both technical and human issues.

The experience of the Japanese organisations involved in the emergency and recovery response of the Fukushima accident is of primary importance for the NERIS community. Contacts have been established with several organisations in Japan which are keen to cooperate and share their experience. We will have to re-enforce this cooperation in the following years to draw the lessons for the development of preparedness in Europe.

In addition, efforts will have to be made to further present and exchange on the NERIS activities with various European and international organisations involved in the radiation protection issues associated with the emergency and recovery preparedness and response. Specific contacts have been established with HERCA, NEA, IAEA and ICRP. Exchange with these organisations will have to be favoured in the following months in order to disseminate the first results of the NERIS activities and to identify their expectations.

Due to the current involvement of all of you in the NERIS activities, I have the feeling that these challenges are achievable.

Thierry Schneider President of the NERIS Platform

# FEEDBACK FROM RECENT<br/>NERIS EVENTS

#### NERIS Topical Workshop on Contaminated Goods, 22 May 2013, Madrid

This workshop, held at CIEMAT, gathered around sixty international experts belonging to organisations of sixteen European countries and Japan as well as EC, IAEA, FAO and NEA-OECD. It was organised at the initiative of the NERIS Working Group on Contaminated Goods (ConGoo), chaired by IRSN, following the successful first meeting last year in Paris (see the 5<sup>th</sup> Newsletter).

Twelve papers were presented, focussing on the present and future approaches in the management, monitoring and radioactivity control of contaminated consumer goods derived from experiences from accidents at Chernobyl and Fukushima.

Three presentations dealt with the national approaches for managing contaminated foodstuffs after the Chernobyl accident. Lavrans Skuterud (Norwegian Radiological Protection Authority) presented an overview of reindeer breeding and the management of reindeer meat in Norwegian Sami territories since 1986. Anne Nisbet (Public Health England) presented the change in approach to the management and control of sheep meat in the UK from 1986 to 2012. Iossif Bogdevitch (BRISSA agronomic institute, Belarus) presented the evolution of maximum permitted levels (MPLs) for foodstuffs and an overview of agricultural countermeasures that have been implemented in Belarus since 1986. All these presentations highlighted the importance of stakeholder engagement in the process of rehabilitation and recovery in affected territories. Beyond the establishment of MPLs or dose reference levels, the post-accident strategies implemented for years to regain a certain level of control over the situation, succeeded only because they are now developed with the consent, involvement and support of the farmers/breeders, producers, retailers and consumers.

The IAEA Radiation Safety Standards Committee (RASSC) has recently examined the different criteria and international safety standards that have been established for managing foodstuffs in the emergency phase (e.g. Safety Requirements GS-R2 et Safety Standards GSG-2, FAO/WHO Codex Alimentarius, EC Directive no.3954/87) and for controlling the export and import of foodstuffs/feedstuffs in post-accident situations, in particular after Chernobyl (cf. EC EURATOM directives no.733/2008), and Fukushima (cf. EC EURATOM directive no.284/2012). Several food security experts who attend the meeting mentioned that the co-existence of all these guidance documents and regulations, add complexity in an already very complex situation! People who are not radiation protection experts (e.g. food security authorities for instance, but also custom personnel, producers, retailers, consumers, media representatives, etc.) cannot easily digest such a complicated system of management, especially if they are not involved in the emergency and recovery preparedness. Teun Van Dillen (RIKILT) added that the methodology to be used is even less clear for managing goods other than foodstuffs, for which there is currently no international consensus.

Augustin Janssens (EC) presented a new regulatory framework for the management of contaminated foodstuffs after a radiological accident. He pointed out the

(...)

### FEEDBACK FROM RECENT NERIS EVENTS

#### (...)

importance of implementing an optimisation – i.e. ALARA - process (starting with the establishment of dose reduction objectives and then, using Cost-Benefit Analysis to seek for sustainable rehabilitation strategies, taking into account consumers and producers preferences and viewpoints), rather than strictly applying pre-established sets of levels (e.g. MPLs), bans and countermeasures. David Brouque (DGAL – France) concluded that whatever the system is based on, the key point is that it has to be understandable by those who are in charge of the control and security of foodstuffs, at the national and international levels: the need for a more operational system is one of the main lessons to be learned from the Fukushima accident.

The Japanese framework for managing foodstuffs after the Fukushima accident, presented by Nobuyuki Hamada (Central Research Institute of Electric Power Industry, CRIEPI) was illustrated with two case studies: one for drinking water, the other for beef. In both cases, he explained that whilst politicians suggested that there was no risk at all, measurements above the official MPLs, (incorrectly interpreted as limits by non-specialists), created a crucial lack of public confidence towards the authorities which could lead to societal disruption. The Japanese situation after the Fukushima accident was further explored by Ryota Koyama and Hideki Ishii (University of Fukushima), who pointed out the importance of characterising the precise radiological situation of potentially contaminated areas, otherwise countermeasures (such as decontamination) could be ineffective. In this regard, rural and urban areas have been characterised in the Fukushima prefecture on the basis of an initiative by university students and professors with the direct involvement of local farmers and consumers. In Japan, integrated strategies, from production to control are now developed taking into account stakeholder viewpoints, especially in the rice-growing sector. Hideki Ishii emphasised the importance of policies that are tailored to the natural, local and social environments and the cultural values of the local people.

The management of contaminated goods, especially foodstuffs, is a complex and very sensitive issue that cannot be solved without taking into account different viewpoints both at national and international levels, and without a strong involvement of stakeholders, both during preparedness and response phases. In this context, the creation of ten national stakeholder panels for debating this specific topic within the EC FP7 research project PREPARE is a challenging and promising issue.

At the end of the workshop, a panel discussion highlighted the need for actively engaging stakeholders to improve public confidence in the management of contaminated consumer goods.

The program of the workshop and presentations are available on NERIS website http://www.eu-neris.net/index.php/activities/workshops/65-neris-topical-workshop-22-may-2013-madrid -spain.html

Pascal Crouail - CEPN, Milagros Montero - CIEMAT, Sylvie Charron - IRSN, Jean-François Lecomte - IRSN

### The technical visit of Slovak stakeholders in Belarus

Technical visit of stakeholders group (11 participants) from Slovakia to Belarus within the WP3 activities in the framework of the NERIS-TP research Project of the Euratom FP7 (GA 269718) took place from June 1 to 7, 2013. The Technical visit to Belarus interacted strongly with the European NERIS Platform for the mutual benefit of all actors. This activity has been undertaken within the continued work of the local-national forums with the main goal of improving both national and local plans for preparedness and recovery.

The following topics were addressed during the visit:

1) Improvement of national-local cooperation in Slovakia and Belarus, and

2 Radiation control and dissemination of radiological protection culture as the roles of the centres for practical radiological culture implemented and coordinated by Belarussian Research Institute of Radiology (RIR).

The group of stakeholders first visited Bragin on June 3, 2013 where the Seminar took place related to the issues of emergency response and countermeasures at long-term contaminated area as well as to the issues of the emergency and post-accident preparedness and recovery attended by 32 participants. The focus was given on the cooperation of the national and local stakeholders within the emergency response structure and in the post-accident period on the radiological protection of population illustrated and applied to the Bragin district of the Gomel Region. The experience of Slovakian stakeholders were presented as well and were very much appreciated especially in the area of the emergency response organisation related to the operational Nuclear Power Plants Bohunice and Mochovce. After the Seminar, the group of Slovak stakeholders visited the centre of practical radiological protection culture in Bragin. They also visited the Museum with the art gallery where exposition widely presents the Chernobyl theme and the history of Bragin. The film presenting the Chernobyl catastrophe and the life after it touched all and the experience presented by the eyewitness and real stakeholder of the consequences remains in mind of all.

The International Scientific Conference "Nuclear and radiation safety: lessons of Chernobyl and Fukushima" took place on June 4, 2013 at the Research Institute of Radiology in Gomel. It brought together representatives and experts of Belarusian, Japanese and Slovakian research and regulatory organisations. The major objective of the Conference was to discuss the latest research achievements and share the experience of different institutions on their practices related to development and improvement of preparedness and response system in the event of nuclear or/and radiation emergencies. The Conference has focused on the issues of overcoming the consequences of the Fukushima Daiichi nuclear disaster using the post-Chernobyl experience. The presentations also covered the radiation protection and rehabilitation issues and social and psychological rehabilitation of the affected population and information dissemination.

The technical visit was finished on June 5, 2013 by visits of the local information centres for practical radiological culture situated at the secondary schools in Luninets and in Vulka-2 of Luninets district of Brest Region. The practical presentations, dialogue and discussion related to the history, current situation but also to the research of young generation and life in the contaminated area nowadays took place in friendly atmosphere. This activity was especially essential for the engagement and active involvement of mayors of Madunice and Kalna nad Hronom Municipality from Bohunice and Mochovce Nuclear Power Plant District in Slovakia. These mayors are the members of the Group of European Municipalities with Nuclear Facilities (GMF).

## FEEDBACK FROM RECENT<br/>NERIS EVENTS



Exchange visit offered a bundle of benefits, well beyond just acquiring information. This visit has created common understanding, relationships forged in the hardships of shared experience, commitments to new approaches, and friendships as foundation for future networking. Technical visit allowed Slovak stakeholders and Belorussian hosts to focus time and attention on a topic, learning deeply, sharing ideas, and assessing the relevance of new approaches in the area of the post-accident management with the main goal of improving both national and local plans for emergency and recovery. The shared experiences of all participants will contribute to the enhancement of nuclear or radiological emergency preparedness and - recovery and will make the process of stakeholders involvement at all levels from local through regional to the national more comprehensive and meaningful.

Tatiana Duranova - VUJE

#### Recent preparedness exercises Recent preparedness exercises in Spain for post-accident rehabilitation involving regional and local stakeholders

In the frame of NERIS-TP project, CIEMAT and UPM (Polytechnical University of Madrid) are working together in close interaction with the Nuclear Safety Council (CSN) and Civil Protection authorities of Spain towards the development of a coherent framework for post-accident rehabilitation by involving national, regional and local stakeholders. A preparedness exercise has been organised in June 2013, with emphasis on the engagement with local stakeholders. Much attention was dedicated to the post-accident situation of Fukushima Daiichi NPP and the current management of contaminated territories around it.

The zone around Ascó NPP -included in the Nuclear Emergency Plan of Tarragona province, Catalonia region-, was selected as territory impacted by a severe accident in the nuclear power plant. The final objective of the table-top exercise was to perform a complete analysis and discussion of the threats, sensitivity of the area, mitigating alternatives and their feasibility and effectiveness, as well as the involvement of local, regional and national actors in their effective implementation. The conclusions of the exercise would help to better clarify the roles and responsibilities at each level and to identify the need for improvement with regard to cooperation along the chain national/regional/ municipality/level.

The exercise took place after several preparatory meetings and a workshop to introduce basic radiation protection concepts, the JRODOS decision support system (DSS) and its module for the long-term assessment of management options in urban environment (ERMIN) as well as the EURANOS Handbooks for assisting in the management of contaminated inhabited areas, food production systems and drinking water. JRODOS and the EURANOS handbooks have been used to develop realistic post-accident scenarios, based on which facilitated discussions have allowed to start developing provisions for the management of the long-term rehabilitation phase and to identify gaps in currently available resources and organisation.

About 40 participants contributed to the exercise, including the authority of the Emergency Plan; central, regional and local Civil Protection delegates; CSN advisors; emergency responders, security and public order representatives at national, regional and local level; central Catalonian and local health services; ENRESA (National Company for Radioactive Waste Management); NPP coordinator of the in-site Emergency Plan; local university radiological surveillance laboratories; agricultural department of Catalonia; 3 mayors and 9 representatives of different municipalities.

Four main topics were discussed :

Urban areas: return of the evacuated population; decontamination strategies of the urban environment; criteria for assessment. Radiological control of areas and people during and after cleaning; management of radioactive waste generated.

Social aspects: recovery of disrupted social and economic activity after several months; mechanisms to be implemented and by which actors to get a limited socio-economic impact; accommodation and services out of the relocated-contaminated areas; organisation of transfer and return of population. Communication policies.

• Agricultural areas: optimal management alternatives; duration of food restrictions in large production areas; suitability of the available tools for the studied region with peculiarities (vineyards, fruit trees, rice...); monitoring of large food production systems; adequate communication channels with the consumers.

• Basins and hydraulic systems and their use: importance of reliable predictions on the long-term evolution; special impact evaluation needs on fish farms, rice cultivation, etc. Actors which should be aware and implicated in the preparedness.

#### **Outlook and future activities**

New exercises are under development in collaboration with CSN and the General Directorate of Civil Protection and Emergencies (GDCPE) of the Spanish Ministry of the Interior, like the CURIEX-2013 exercise (Cáceres Urgent Response International Exercise, *http://www.curiex.es/en/home*), organised also in cooperation with the European Commission.

Within the European research project PREPARE there are being additional activities involving interaction with stakeholders, with focus on food and goods contamination and on public communication.

The aim at the end of the research project NERIS-TP is to produce a proposal of guide for involvement of the local stakeholders in preparedness for the transition and rehabilitation phases. A final open workshop will be organised in the first quarter of 2104 to disseminate the conclusions and the proposal for the guide produced to the rest of nuclear areas of Spain.

The recovery phase is not currently included in the legal framework for Emergency Plans in Spain. Activities such as the exercises carried out and the working groups which are being created will serve to initiate the debate between administrations and stakeholders potentially affected on how to address and move forward in the preparation for the phase of transition or departure from the urgent phase, and how to plan the activities in the recovery phase.

Eduardo Gallego - UPM, Milagros Montero - CIEMAT

## News

#### The R&D Committee meeting in Brussels on 25 September 2013



### The NERIS Platform became an ICRP Liaison organisation

NERIS is now listed among the organisations in formal relations with ICRP: *http://www.icrp.org/icrp\_group.asp?id=80* 

#### NERIS Fourth General Assembly -Election of the new Management Board for a three years period

During the Fourth NERIS General Assembly which has been held on May 21 in Madrid, the members of the new Management Board have been elected for a period from May 2013 to May 2016 :

- Thierry Schneider (CEPN) President
- Florian Gering (BfS) Vice-President
- Frank Hardeman (SCK-CEN) Chair of the R&D Committee
- Deborah Oughton (UMB) Secretary
- Wolfgang Raskob (KIT) Treasurer
- Joël Bardelay (IRSN)
- Tatiana Duranova (VUJE)
- Eduardo Gallego (UPM)
- Gilles Hériard-Dubreuil (MUTADIS)
- Christophe Murith (FOPH)



### **R&D Committee**

In order to further improve the Strategic Research Agenda (SRA) of the NERIS Platform, it has been decided by the management board in its Madrid meeting to start a process for updating this SRA, and to progress in the elaboration of a deployment plan.

In order to achieve these goals, NERIS members have been invited to comment on the existing SRA; the feedback was grouped and discussed during the R&D committee meeting in Brussels on 25 September 2013.

The following issues were discussed:

An overall assessment of the completeness of the SRA, taking into account lessons learnt from Fukushima and a general framework for describing emergency management. This included a discussion on how to take into account technological and societal evolutions, and to make a more clear distinction between research, development and practical implementation issues;

A systematic analysis of the comment received per key topic;

A systematic analysis per research topic of its current status. Indeed, some research questions are being or have been addressed already within the European research projects NERIS-TP or PRE-PARE; some are dealt with by other organisations (IAEA-Modaria, ALLIANCE), and others have not started yet.

• An onset of priority setting for the research questions still awaiting an answer.

At present, the results of this meeting are being summarised, and some further clarification is requested prior to be capable to finalise the texts and priorities. A further iteration among the R&D committee members is foreseen.

The major outcome of this process will be an update of the SRA completed with a clear list of priorities that can be put on the table when further discussions about research programming in the broader field of radiation protection are starting (e.g. within the OPERRA project). On longer terms, a deployment plan over a longer time span will the final outcome of this process; this plan shall include a description of processes for updating the needs taking into account input from lessons learnt or from exchanges with stakeholders.

Frank Hardeman - Chair of the R&D Committee

### ANNOUNCEMENTS

SECOND ANNOUNCEMENT: "NERIS-TP dissemination workshop" Thon Hotel Bristol - Kristian IV's gate 7 Oslo, Norway 22 - 24 January 2014



#### Background

The Euratom NERIS-TP research project on "Preparedness for Nuclear and Radiological Emergency Response and Recovery" started in 2011. The objectives of the project were firstly to

solve urgent research needs such as the implementation of the new ICRP recommendations in the simulation models, the coupling of decision support systems such as ARGOS and RODOS to early notification systems and to carry out research activities to improve emergency management on the local and the national level, and secondly to support the operation of the NERIS Platform in order to make it sustainable in the long term.

#### **Objectives and structure of the Workshop**

The NERIS-TP dissemination workshop will allow to present the results of the NERIS-TP project and to bring together best practice, knowledge and technology to enhance the preparedness for Europe's response to any radiation emergency and recovery situation.

The first day will be focused on stakeholder engagement in Europe and Japan.

• The second day will be dedicated to the presentation of the methodological developments of tools and experiences on using tools in demonstration exercises.

• The third day will be aimed at discussing the way forward for building national and European resilience.

#### **Target Audience**

The target audience of this workshop are actors in emergency and recovery preparedness and management from all levels and sectors.

#### **Venue and Accommodation**

The workshop will be held at the following hotel: Thon Hotel Bristol Kristian IV's gate 7 0164 Oslo - Norway www.thonhotels.com/hotels/countrys/norway/oslo/thon-hotel-bristol1/

For further information about Oslo: www.visitoslo.no/en/

#### Fee

There is no registration fee, however, participants are expected to cover their own travel and subsistence costs. If you need financial support for your travel and accommodation expenses, please contact the NERIS Secretariat (*sec@eu-neris.net*).

#### **Working language**

The working language of the workshop will be English with simultaneous translations into French, Spanish and Russian.

#### **Registration and further information**

While there is no registration fee, participants should register online directly at the following link: *http://tinyurl.com/neris-tp-oslo-2014-01* or through the NERIS web page: *http://www.eu-neris. net/* by 21 December 2013

For further information please contact the Local Coordinator (Anne Marie Frøvig – anne.marie.frovig@nrpa.no) or the NERIS Secretary (Sandra Biguenet - sec@eu-neris.net).

You can also visit the NERIS web page http://www.eu-neris.net/.

#### **Important dates**

Registration deadline: 21 December 2013

#### PROGRAMME

#### **FIRST DAY** 22 January: Stakeholder engagement in Europe and Japan

#### 09:00 - 09:10 Welcome address

(Astrid Liland, NRPA and Wolfgang Raskob, KIT) 09:10 - 09:25 Presentation by Michel Hugon (EC project officer)

09:25 - 09:35 Local-national cooperation in emergency preparedness

(Astrid Liland, NRPA)

09:35 - 09:50 Description and evaluation of national-local processes (Gilles Heriard-Dubreuil, MUTADIS) 09:50 - 10:35 The Spanish experience with local-national fora Edurado Gallego, UPM Local representative National representative

#### 10:35 - 10:55 Coffee

10:55 - 11:40 The French experience with local-national fora *Gilles Heriard-Dubreuil, MUTADIS Local representative National representative* 

#### 11:40 - 12:40 Lunch

12:40 - 13:10 The Norwegian experience with local-national fora Inger Margrethe Eikelmann, NRPA Local/regional representative 13:10 - 13:55 The Slovak experience with local-national fora Tatiana Duranova, VUJE Local representative

National representative

13:55 - 14:40 The Belarus experience with post-accident management and stakeholder involvement Viktor Averin, RIR Regional representative Local representative 14:40 - 15:00 Coffee

#### 14:40 - 15:00 Collee

15:00 - 15:50 Japanese experience in stakeholder involvement FAIRDO project (*Prof. Suzuki, Fukushima Univ. and Yoshiaki Totoki, IGES*) ICRP dialogues seminars (Prof. Nobuhiko Ban, Faculty of Nursing at Higashigaoka - Tokyo Healthcare University)

15:50 - 16:05 NERIS Working Group on processes and tools for community level (*Deborah Oughton, UMB*)

16:05 - 16:25 The value of exchange visits (*Tatiana Duranova*, *VUJE*)

16:25 - 16:40 Transversal analysis of national-local processes (Stéphane Baudé, MUTADIS)

16:40 - 18:00 Discussion sessions in smaller groups on the experience gained and the views on the way forward (to be reported on Day 3). Introduction by Gilles Heriard-Dubreuil, MUTADIS

### ANNOUNCEMENTS

SECOND ANNOUNCEMENT: "NERIS-TP dissemination workshop" Thon Hotel Bristol - Kristian IV's gate 7 Oslo, Norway 22 - 24 January 2014

#### SECOND DAY 23 January: Improved Tools, Demonstration exercise

09:00 - 10:00 The decision support system JRodos: Overview and new features and products (*Wolfgang Raskob, KIT*)

10:00 - 12:30 System demonstration and simulation capabilities: series of demonstrations and presentations:

- Automated assessment of doses and potential consequences initiated by a message from the USIE (Dmytro Trybushnyi, KIT)
- World-wide applicability of JRodos (Dmytro Trybushnyi, KIT)
- Assessment of doses based on freely available meteorological data – operation of the Weather Research and Forecasting (WRF) modelling system (Spyros Andronopoulos, NCSRD)
- ICRP 103 Screening Tool (Claudia Landman, KIT)

#### 12:30 - 13:30 Lunch

13:30 - 14:45 System demonstration and simulation capabilities: series of demonstrations and presentations:

- ERMIN Urban Area Countermeasure Program (Tom Charnok, PHE; Claudia Landman, KIT)
- AgriCP Agricultural Countermeasure Program (Florian Gering, BFS)

14:45 - 15:15 Use of simulation capabilities of the ERMIN by Japanese after Fukushima (to be confirmed)

#### 15:15 - 15:40 Coffee

15:40 - 16:25 Stakeholders engagement and involvement in nuclear emergency preparedness:

 Slovak Republic experience in RODOS tools driven workshops (Adriana Sokolikova, UJD SR; Tatiana Duranova, VUJE)

• Spanish experience on using ERMIN in an exercise (Eduardo Gallego, UPM)

PROGRAMME

• French experience from the Montbéliard community on using tools in risk management and preparation of local emergency plans (Isabelle Méraux Netillard, PMA, Sandra Biguenet, CEPN)

16:25 - 16:50 Use of JRODOS as scenario preparation tool for exercises - guided JRODOS user training (Claudia Landman, Dmytro Trybushnyi, KIT)

16:50 - 17:30 Round table and discussion on use of JRodos in the process of national-local preparedness (to be reported on Day 3)

#### THIRD DAY 24 January: Way forward for building national resilience

08:30 - 10:00 Panel discussion with international organisations HERCA EC DG Research IAEA NEA Nuclear Transparency Watch GMF (Group of European municipalities with nuclear facilities)

Open discussion

#### 10:00 - 10:30 Coffee

10:30 - 11:00 Feedback from discussion groups on day 1

11:00 - 11:30 Feedback from discussions on day 2

11:30 - 12:15 Plenary discussion session on way forward

#### 12:15 - 13:15 Lunch

13:15 - 13:45 Public uptake of Science (to be confirmed)

13:45 - 14:05 NERIS platform (Thierry Schneider, CEPN)

14:05 - 14:20 NERIS Strategic Research Agenda (Frank Hardeman, SCK)

14:20 - 14:40 PREPARE (Wolfgang Raskob, KIT)

14:40 - 15:00 Concluding remarks (Astrid Liland, NRPA and Wolfgang Raskob, KIT)

### ANNOUNCEMENTS



Training Course on Preparedness and Response for Nuclear and Radiological Emergencies March 17-21, 2014 Mol - Belgium

#### Introduction

In the context of FP7 project PREPARE («Innovative integrative tools and platforms to be prepared for radiological emergencies and post-accident response in Europe»), two basic courses will be organised addressing the training needs of key players along the entire cycle of nuclear/radiological emergency management.

The course on «Preparedness and response for nuclear and radiological emergencies» will focus on the early to intermediate phases after a nuclear/radiological accident.

This course will address the state of the art in nuclear and radiological emergency management including the latest international recommendations, the lessons learned from the Fukushima accident and remaining challenges.

The course is organised by the Belgian Nuclear Research Centre SCK•CEN, in collaboration with the main European emergency management actors, the European platform NERIS (Preparedness for Nuclear and Radiological Emergency Response and Recovery, *www.eu-neris.net*) and with support from the SCK•CEN Academy for Nuclear Science and Technology.

#### **Course content**

The course will give a **comprehensive overview of nuclear and radiological emergency management in Europe.** This includes, but is not limited to, principles of intervention; radiological evaluations; decision-support tools; different aspects of planning and organisation in off-site emergency response; economic, social and psychological impact. The European and international dimension is addressed through lectures on Community legislation and international data and information exchange. The Fukushima accident will be addressed throughout the entire course and in dedicated lectures.

To ensure a good balance between theoretical and practical aspects, lectures will alternate with demonstrations, group exercises and discussions. A table-top exercise will require the participants to work out an effective emergency response in a simulated nuclear accident scenario, based on the information provided in the course.

#### Venue

The course will take place during the week of 17-21 March, 2014 in the Auditorium of the SCK•CEN Club-House, Boeretang 201, B-2400 Mol, Belgium.

#### **More information**

The website of the course and the on-line registration will be available shortly.

For the course programme or other information, please contact: **Catrinel Turcanu** (cturcanu@sckcen.be) **or Johan Camps** (jcamps@sckcen.be)

Training Course on "Late Phase Nuclear Accident Preparedness and Management" - 16-18 September 2014