

The 17th European ALARA Network Workshop in collaboration with NERIS

ALARA in emergency situations

Welcome address to
European ALARA Network workshop

Dr. F.Vermeersch
Chairman EAN

15-17 May, Lisbon, Portugal

<http://www.eu-alara.net/>

17th European ALARA Network Workshop
ALARA in emergency situations

- 1996
 - cooperation of experts from various European organisations mediated by the European ALARA training course
 - European Support from 1996 to 2004
- 2005
 - Evolution to a self supporting network
 - EAN a legal entity, non-profit organisation under French law
 - Coordination CEPN, PHE and a group of European experts
- Evolution from 8 to 20 countries since 1996

- First
 - ALARA in industry and research
 - Industry → non NPP (ISOE for NPP)
- Later
 - ALARA in the medical field
 - ALARA in NORM-industry
- Currently
 - All exposure situations, planned, existing and emergency situations

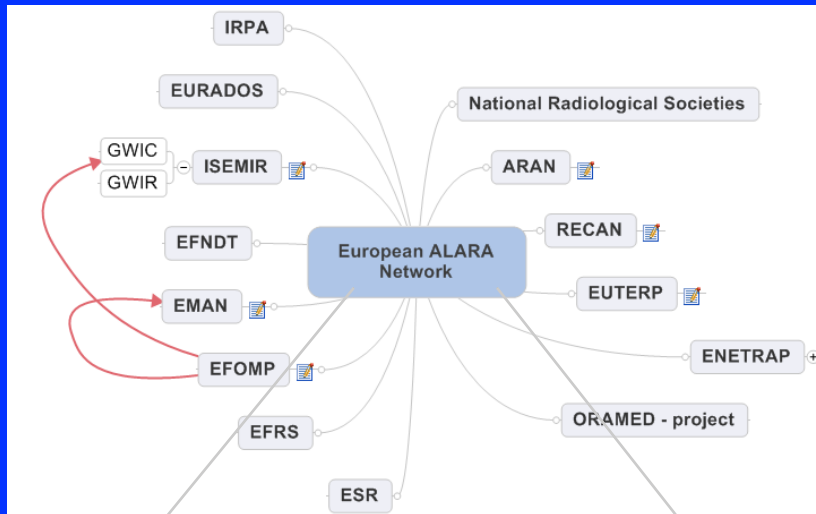
- Promote a wider and more uniform implementation of the ALARA principle for the management of worker, public and patient exposures in all exposure situations,
- Provide a focus and a mechanism for the exchange and dissemination of information from practical ALARA experiences
- Identify and investigate topical issues of common interest to further improve the practical implementation of ALARA

EUROPEAN

ALARA
NETWORK

How does the network work

**ACTIVITIES AND
ACHIEVEMENTS**



Medical field

EFOMP – European Federation of Organisations for Medical Physics
EFRS – the European Federation of Radiographer Societies

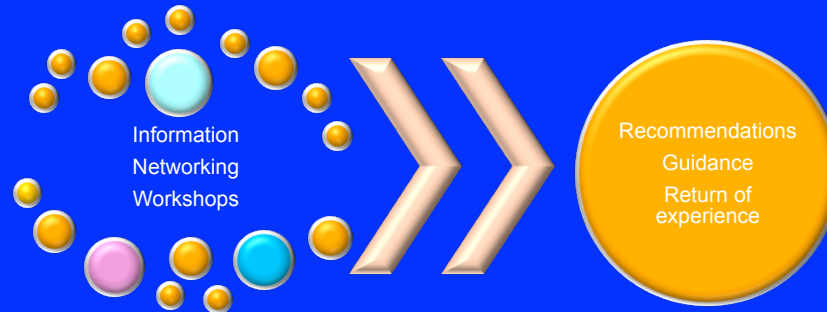
Industry

EFNDT – European Federation for Non-Destructive Testing

Special Liaison Organisation to ICRP committee 4 working group on NDT

NERIS

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



Input

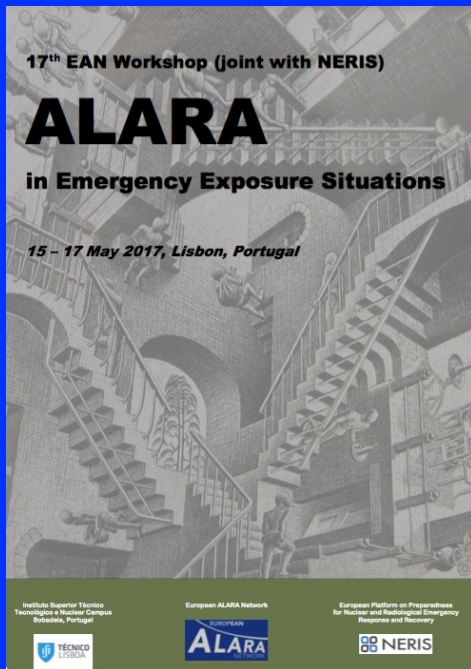
output

- EAN Workshops
- Support to European Surveys
- EAN working groups
- ALARA Newsletter
- EAN Website

Workshops



Why a workshop on ALARA in emergency situations



- Why
 - ICRP and BSS emphasis to apply ALARA in emergency situation and post-accident situations
 - reexamine the challenges in applying the ALARA principle, taking the lessons learned from Fukushima into account
- Context
 - ICRP, discussion on acceptability of risk
 - IRPA discussion on reasonableness
 - Collaboration with NERIS

- **Definition**
 - Urgent action to limit or reduce the unwanted consequences (exposures)
- **Stakeholder**
 - Not a uniform knowledge base, different risk perception, specificity of "new exposed" workers (responders) usually, not trained in RP
- **Implementation**
 - Complicated
 - integrate protection strategies into the planning stage as well as during the implementation of the emergency response
- **Elements used in the ALARA process**
 - Scenario evaluations
 - Generic intervention levels for pre-defined actions
 - Sheltering, Evacuation, Iodine prophylactics,...
 - Predetermined emergency zones
 - Evolution towards Safety demonstrations for new installations to mitigate consequences (avoiding off-site emergency measures, protective measures limited in area or time)

17th European ALARA Network Workshop

ALARA in emergency situations

- How
 - Presentations → setting the scene, info for discussion
 - Working groups dealing with identified topics
 - Working group 1
 - Focus on the public
 - Working group 2
 - Focus on the individual
 - Working group 3
 - Prediction and reality

Working group 1

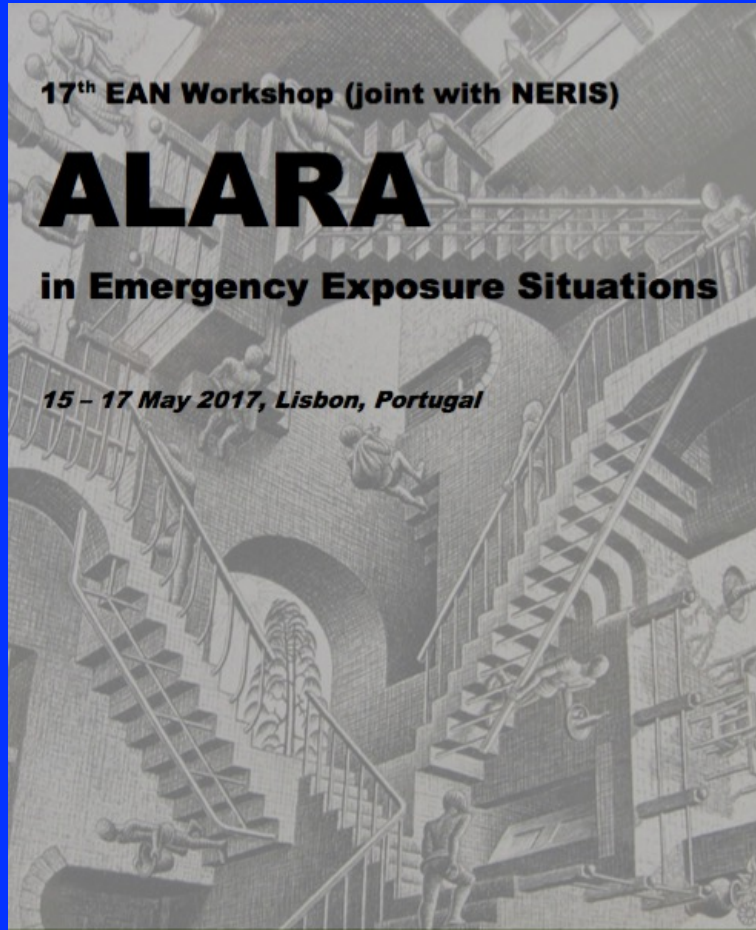
- Can the ALARA principle be fully applied in Emergency Exposure
- Situations for members of the public?
 - Are their steps of ALARA process that cannot apply? or should apply differently? How differently?
- When and how to evacuate?
- What about other protective actions?
- What does *Reasonable* mean anyway?

Working group 2

- Can the ALARA principle be fully apply in Emergency Exposure
- Situations for the occupational exposed individuals?
- Are their steps of ALARA that cannot apply? Or should apply differently? How differently?
- Low dose for many or high dose for a few?
- How do you know that doses are ALARA?
- Can innovative technologies be of use? Pros and cons?

Working Group 3a and 3b

- Predict the unpredictable. How to ensure the emergency plans are optimal from a radiation protection point of view?
- The challenges raised by ALARA in planning vs. ALARA in real situation (experience feedback of nuclear accidents).
- Acting in emergency
- How to react if the situation goes beyond the prediction?



17th EAN Workshop (joint with NERIS)

ALARA




in Emergency Exposure Situations

15 – 17 May 2017, Lisbon, Portugal

Instituto Superior Técnico
Tecnológico e Nuclear Campus
Bobadela, Portugal

European ALARA Network

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



WELCOME

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**Thank you and have a
Successful Workshop**