Experience of the European ALARA Network

C.Lefaure - EAN chairman

Dresden . Novembre 2007

11 Years Old

- **1996** : **EAN** Founded and sponsored by EC (DG Research / DG Environment)
- Self-sustainable since **2005**
- **2007** : 9 ➠ **21 countries** are represented by at least one institution in SG.
  (13 in the Administrative Board)

  Coordination :
  CEPN (France) - HPA (UK)

EAN Objectives

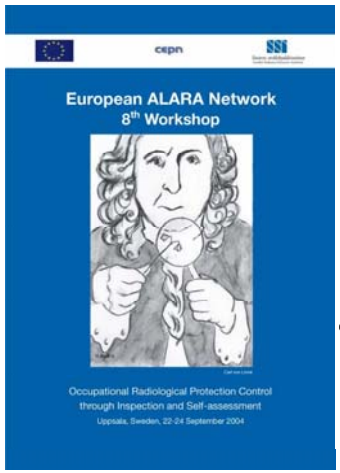
- **To** maintain and develop competences **in radiation protection, with special emphasis on ALARA for** all types of exposures **in routine operations and emergency situations**

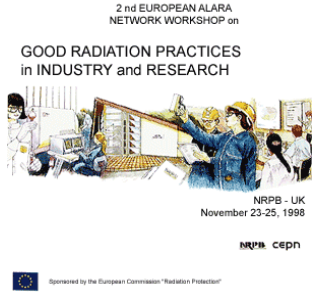
- **To contribute to harmonisation of radiation protection** policies and practices**, particularly concerning ALARA, at regulatory and operational levels**

- **To cover** all types of practices **within the different sectors**

- **To cover radiation protection themes relevant to all sectors, as well as themes specific to one or more sector(s).**

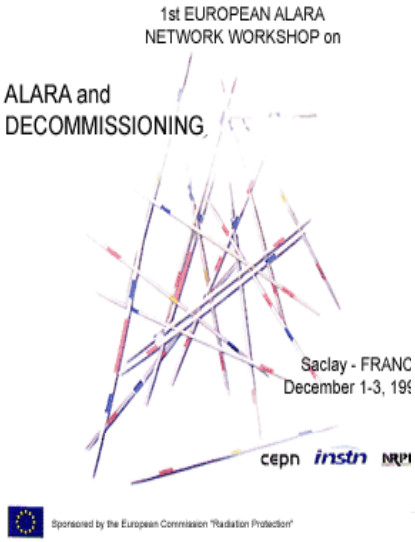
EAN Activities 1996-2006 (1)

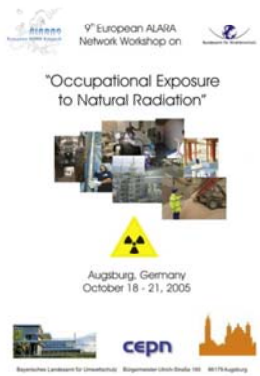


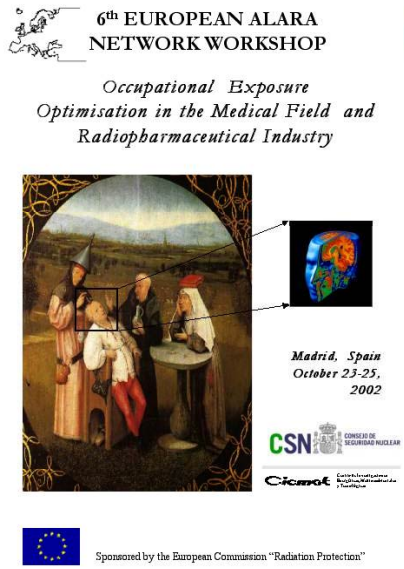


- **10 Workshops** (700 participants)

(decommissioning, internal exposures, risks management, industrial radioagraphy, medical sector and radiopharmaceuticals, site rehabilitation, inspection & control), **NORM industry**,





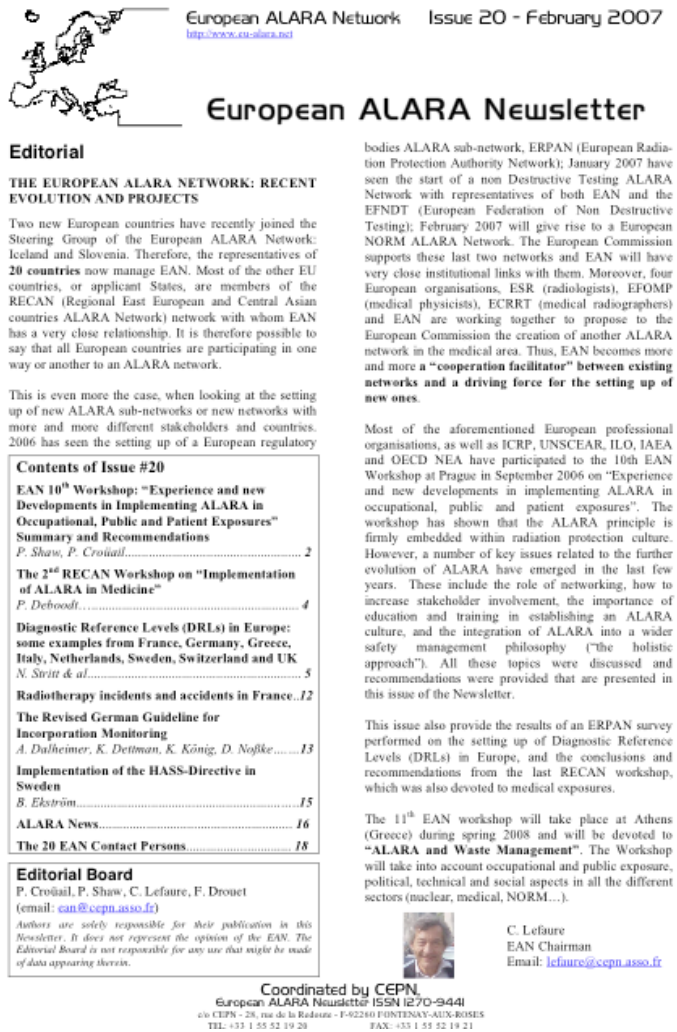


Dresden : Novembr

EAN Activities 1996-2006 (2)

- 10 **Workshops**
  - ➠ ~ 100 topical **recommendations** to: EU, ICRP, IAEA, National Authorities, Operators, Workers trainers, etc.
- 21 **ALARA Newsletters** (2 issues/year)
  - ➠ 1,000s **addressees**
- 1 **Website** & its **Forum** / http://www.eu-alara.net
  - ➠ 10,000s/y **downloads**
- Several **sub-networks or brother network**

  RR; NDT; …NORM; EMAN



European ALARA Network Issue 20 - February 2007
http://www.eu-alara.net

European ALARA Newsletter

Editorial

THE EUROPEAN ALARA NETWORK: RECENT EVOLUTION AND PROJECTS

Two new European countries have recently joined the Steering Group of the European ALARA Network: Iceland and Slovenia. Therefore, the representatives of **20 countries** now manage EAN. Most of the other EU countries, or applicant States, are members of the RECAN (Regional East European and Central Asian countries ALARA Network) network with whom EAN has a very close relationship. It is therefore possible to say that all European countries are participating in one way or another to an ALARA network.

This is even more the case, when looking at the setting up of new ALARA sub-networks or new networks with more and more different stakeholders and countries. 2006 has seen the setting up of a European regulatory bodies ALARA sub-network, ERPAN (European Radiation Protection Authority Network); January 2007 have seen the start of a non Destructive Testing ALARA Network with representatives of both EAN and the EFNDT (European Federation of Non Destructive Testing); February 2007 will give rise to a European NORM ALARA Network. The European Commission supports these last two networks and EAN will have very close institutional links with them. Moreover, four European organisations, ESR (radiologists), EFOMP (medical physicists), ECRRT (medical radiographers) and EAN are working together to propose to the European Commission the creation of another ALARA network in the medical area. Thus, EAN becomes more and more **a "cooperation facilitator" between existing networks and a driving force for the setting up of new ones**.

Most of the aforementioned European professional organisations, as well as ICRP, UNSCEAR, ILO, IAEA and OECD NEA have participated to the 10th EAN Workshop at Prague in September 2006 on "Experience and new developments in implementing ALARA in occupational, public and patient exposures". The workshop has shown that the ALARA principle is firmly embedded within radiation protection culture. However, a number of key issues related to the further evolution of ALARA have emerged in the last few years. These include the role of networking, how to increase stakeholder involvement, the importance of education and training in establishing an ALARA culture, and the integration of ALARA into a wider safety management philosophy ("the holistic approach"). All these topics were discussed and recommendations were provided that are presented in this issue of the Newsletter.

This issue also provide the results of an ERPAN survey performed on the setting up of Diagnostic Reference Levels (DRLs) in Europe, and the conclusions and recommendations from the last RECAN workshop, which was also devoted to medical exposures.

The 11th EAN workshop will take place at Athens (Greece) during spring 2008 and will be devoted to **"ALARA and Waste Management"**. The Workshop will take into account occupational and public exposure, political, technical and social aspects in all the different sectors (nuclear, medical, NORM…).

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Lessons learned from EAN: a success story

EAN has been and is still successful, and growing

number of countries participating, (last Romania in 2007)

number of topics addressed, (EMAN in 2008…)

number of recommendations implemented,

- new international European projects
- modifications of national regulations and/or regulatory procedures,
- organisation of specific working groups between regulatory bodies and other stakeholders,
- development of specific monitoring devices,

What are the reasons of that success?

Lessons learned from EAN

Personal links and Communication

- **Opportunities for communication between individuals, not institutions**
- **Many "bypasses",**

Enthusiasm

- **A real keyword**
- **To put forward for discussion the real problems**
- **To try to find together solutions**
- **Through actions favouring a bottom-up approach**

Lessons learned from EAN

Flexibility

- Much more than any other type of organisation between institutions
- No permission has to be requested
- No formal rules have to be followed.
- Initiatives are easily taken

Collective efficiency

- Differences lead to solutions more generic
- Solutions with more chance of sustainability

Lessons learned from EAN

Favouring Team work

A very efficient way of producing recommendations that are discussed in plenary sessions is the work in small groups

Making use of the existing network

An efficient network is a good support for European Surveys, studies and seminars (outside workers…)

Much more easy to be done when relying on ad hoc Partners, participating to the same network.

Focussing on EAN and NORM

The 2d EAN workshop first addressed a few topics dealing with NORM in particular mineral sands and the monitoring of internal exposure.

The 3rd workshop was therefore devoted to internal exposure… and NORM were present… this has led to the SMOPIE project

BUT mainly it was

The 9th EAN workshop which has been devoted to NORM.

so let talk a little about it

"OCCUPATIONAL EXPOSURE TO NATURAL RADIATION"
EAN 9th Workshop Summary

» The theme of the workshop: control of exposures received by workers from natural radiation sources. Specifically, workplace exposures from NORM and from radon were considered.

» A harmonised approach to the control of occupational exposures from NORM has been mostly lacking.

» NORM is widespread, and not all work activities can or should be subject to regulatory control.

» Application of a dose criterion should be based on realistic assessments of the doses that are likely to be received.

» Although many NORM industries know little about radiation protection, they are often familiar with worker protection from a wider industrial hygiene perspective.

"OCCUPATIONAL EXPOSURE TO NATURAL RADIATION"
EAN 9th Workshop Summary

- Despite these developments, the workshop identified a number of areas where further progress was needed. In particular:`
  - There remain significant uncertainties around the dose coefficients used to calculate doses from intakes of NORM. In many cases, the radionuclides are contained within inert particles, the bio kinetics of which are not well defined.
  - Air sampler design is driven by industrial hygiene considerations, which do not always match the needs of radiation protection.
  - There is still reluctance in some NORM industries to acknowledge the radiation protection issues, often because they see no benefit in doing so.

"OCCUPATIONAL EXPOSURE TO NATURAL RADIATION"
EAN 9th Workshop Summary

» Despite worker protection being one of the main themes of the Workshop, there was actually very **little information** presented on this subject. **It was hoped that a future NORM network**, sponsored by EC, would be able to provide this type of information.

» The introduction of controls on NORM has also had a large impact in terms of how the by-products, residues and wastes are viewed. In a number of cases, previously unregulated materials are now firmly categorised as radioactive waste. Some of these materials are produced in huge quantities, and **the use/disposal of residues is a major issue for a number of NORM industries**.

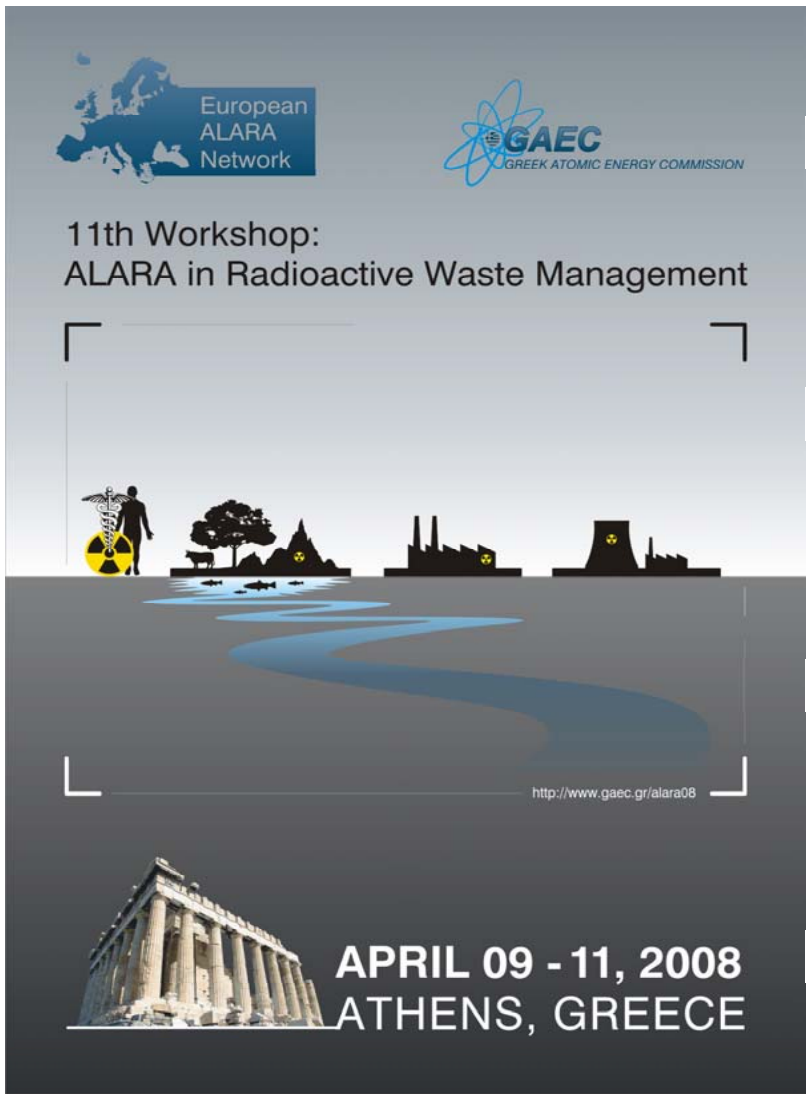
"OCCUPATIONAL EXPOSURE TO NATURAL RADIATION"
EAN 9th Workshop Recommendations

» **Recommendations will be described in the SMOPIE presentation this afternoon**

But one:

» **it has been recommended to the EC to set up a European ALARA NORM Network**

- 11th Workshop



ALARA in Waste Management:

Focus on the **implementation of the ALARA principle** with regard to occupational and public exposures arising from the **management of radioactive waste.**

This includes waste from the nuclear, medical, **NORM,** industrial, education and research sectors.

Challenges for EAN, EAN NORM and other Networks

To involve more and more stakeholders (authorities, operators, workers, NGO, Trade Unions,...) dealing with radiological protection (prevention, precaution, vigilance)

To become increasingly places where divergences between stakeholders can be discussed and compromises can be worked out

To become active and recognised interlocutors in risk management decision processes by sharing experiences, promoting good practices, influencing international rules and regulations.

To help in launching other networks in other world regions... and collaborate with them afterwards.