

European ALARA Network

Experience with networking to
support optimisation in practice

From 1996 to 2020

Key milestones from 1996 to 2020

- 1996: EAN founded by the European Commission
 - cooperation of experts from various European organisations mediated by the European ALARA training course
 - European financial support from 1996 to 2004
- 1997: Organisation of first ALARA workshop
- 2005: Evolution to a self supporting network
 - EAN a legal entity, non-profit organisation under French law
 - Coordination: CEPN (Fr) , PHE (UK)
- 2009: Evolution from 8 to 20 Members
- 2014 -2020: Continuation of the EAN association
 - Publication of ALARA Book
 - Elaboration of EAN Strategic Agenda for 2021-2026

EAN objectives

- The objectives of the network are defined in the EAN “*Terms and Conditions*”, which were formally signed by all the Members



Promote a wider and more uniform implementation of the ALARA principle for the management of worker, public and patient exposures in all 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 implementation of ALARA

EAN organisation

- Three entities operate the network
 - **A Bureau:** Chair + Vicechair + Treasurer + Secretary;
 - Coordination of the network
 - Elected by the Administrative Board
 - **An Administrative Board (AB):** representatives from ~10 organisations (regulatory body, research centre, licence holder)
 - Meets 2 × a year
 - Financially supporting (fees) and managing the budget
 - Resources come from fees (generally ~ 7,000 €/year per organisation)
 - **A Steering Group (SG):** representatives from ~16 organizations
 - Define goals and work programs coherent with the objectives and provide the means and planning to achieve them

EAN organisation

Steering group Members, participating to the Administrative Board

SSM – Swedish Radiation Safety Authority, Sweden

BfS – Federal Office for Radiation Protection, Germany

CEPN – Nuclear Protection Evaluation Centre, France

CERN – European Organization for Nuclear Research, Switzerland

CSN – Nuclear Safety Council, Spain

INSTN/CEA – National Institute for Nuclear Science and Technology, France

EPA – Environmental Protection Agency, Office of Radiological Protection, Ireland

PHE – Public Health England, United Kingdom

SCK•CEN – Belgian Nuclear Research Centre, (represents FANC, Belgian Association for Radiation Protection and Belgonucléaire), Belgium

SFOPH – Swiss Federal Office of Public Health, Switzerland

Other Steering group Members

GAEC – Greek Atomic Energy Commission, Greece

GR – Icelandic Radiation Safety Authority, Iceland

ISS – Italian Institute of Health, Italy

Seibersdorf Laboratories GmbH, Austria

SIS – National Institute for Radiation Protection, Denmark

SRPA – Slovenian Radiation Protection Administration,

SUJB – State Office for Nuclear Safety, Czech Republic

STUK – Radiation and Nuclear Safety Authority, Finland

Modes in Networking

- **The EAN ALARA Newsletter**
- **The EAN workshops**
- **European surveys**
- **EAN website**
- **ALARA Book**
- **EAN sub-networks and working groups**
- **Formal cooperation with other European organisations and networks**

Modes in Networking

- **The EAN ALARA Newsletter**
 - 40 issues published (2 × year)
 - Technical and scientific papers, comparisons of regulations and practice, recommendations from workshops, ALARA news, FAQ ALARA
 - Largely distributed (> 2,000 openings)
 - Subscription: **free!**
 - Publication: **free!**



^A Electronic subscription: <http://eepurl.com/b-JZmD>

Editorial

You may have noticed this Newsletter has something new. What's the change?
The EAN logo!

We tried to choose something more modern in style but, of course, still illustrating the founding principle of the Network.
In the same vein, we have also changed the layout of the website: you can have a look and comment.

But what does not change is the spirit of the Network. The Newsletter, the website, the workshops, – and all the EAN Members behind them continue to be the core components of the EAN. We recently organised a workshop on the application of the ALARA principle in 'emergency exposures situations' and you will find down below some of its outcomes (pp. 2 - 16).

Surveys are also an effective way to share experience and you will find the results of a survey regarding radiation protection practices in dental radiography (p. 17).

The young generation is not forgotten; the Youth Club of the French Society for Radiation Protection and the Rising Generation Group of United Kingdom Society for Radiation Protection have drafted a survey intended for the young generation in radiation protection (p. 19).

Please share this survey to the young RP you know.






The EAN is not a closed network. If you are interested we cordially invite you to join.

The EAN Newsletter Editorial Board –
Sylvain Andreat, Julie Morgan, Pascal Crovati and
Fernand Vermeersch.

Modes in Networking



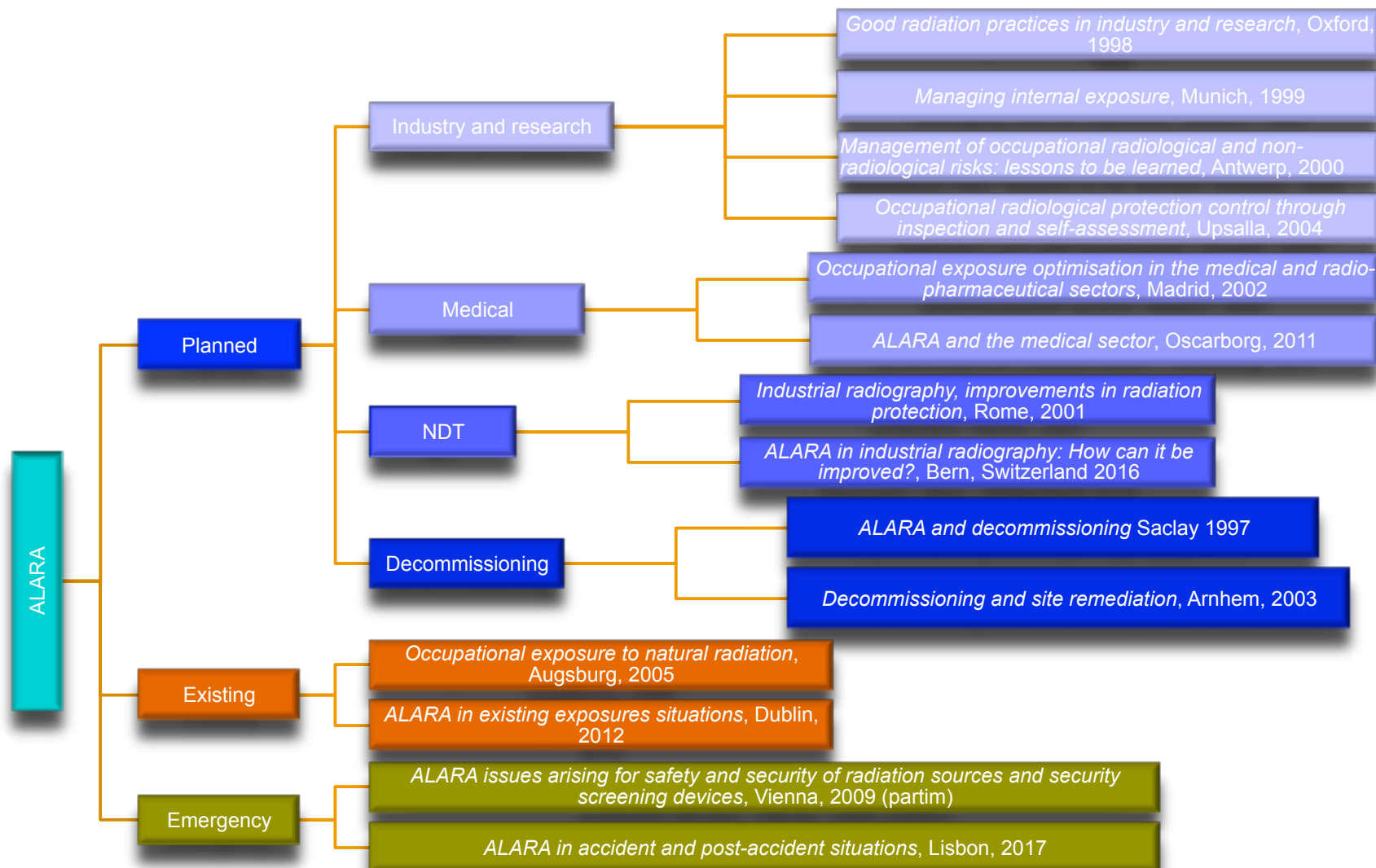
Top locations by opens

	United Kingdom	374	31.1%
	Spain	151	12.6%
	Austria	128	10.6%
	Germany	82	6.8%
	France	72	6.0%

Modes in Networking

- **The EAN workshops**
 - **19 have been organised**; on relevant and various topics
 - **More than 1,200 participants**; between 50 to 80 at each workshop, from 10 to 20 countries
 - Bringing together authorities, manufacturers, trainers, experts, researchers etc.
 - Plenary presentations + working groups
 - **Conclusions and Recommendations** produced and disseminated
 - EU, ICRP, IAEA, national authorities, radiation protection professionals and research, operators, education & training organism etc.
 - Common themes from Conclusions and Recommendations
 - Improve safety culture/RP/ALARA culture;
 - Harmonize and develop good training standards;
 - Involvement in risk management;
 - Set up adequate system for feedback from incidents
 - Last conclusions published in the *Journal of Radiological Protection*

Modes in Networking



Modes in Networking

- **European surveys**
 - **8 surveys organized**; on request
 - Disseminated with the help of the Members
 - Synthesis is distributed to the participants and later published on the website
1. *Delineation and access to regulated areas*
 2. *Dose constraint*
 3. *The implementation of the European Directives 92/29 and 97/43 in national regulation (2006)*
 4. *The management of radioactively contaminated soils (2006)*
 5. *Potential exposure in nuclear installations (2007)*
 6. *The Diagnosis Reference Levels (DRLs) in Europe (2007)*
 7. *Radon exposure management (2010)*
 8. *Radiation protection of aircraft crew (2011 and 2018)*
 9. *Use of Thyroid shielding in the dental radiography (2016-2017)*

Modes in Networking

- **EAN website :** www.eu-alara.net
- Important media for diffusing information – publication of all the work
- Between 150 to 300 visitors/month

The screenshot displays the European ALARA Network website. The header features the ALARA Network logo and a navigation menu with links: Home, Activities, About EAN, Supports, Contact us, and Links. A search bar is also present.

The main content area highlights "Issue 40 - November 2017" of the newsletter, published on 06 November 2017. It lists several articles, including "The Conclusions and Recommendations from EAN workshop 17 on the application of ALARA in emergency exposure situations" by S. Andresz (CEPN, France), J. Morgan (PHE, United Kingdom), F. Vermeersch (SCK-CEN, Belgium), and P. Crouail (CEPN, France). Other articles include "Justification, Optimisation and Dose Limitation following Nuclear Accident - an ICRP Perspective" by A. Nobet (PHE, United Kingdom), "Optimisation and Robustness of Intervention Strategy in Emergency Exposure Situations" by S. Nestorowska Madjumarova, C. Robinson (IAEA), "On the Use of Thyroid Shielding in Dental Radiography- Result of a Survey" by S. Andresz (CEPN, France), J. Holroyd (PHE, United Kingdom), "A Survey for the Young Generation in Radiation Protection", and "As usual: ALARA News and FAQ ALARA (Quiz)".

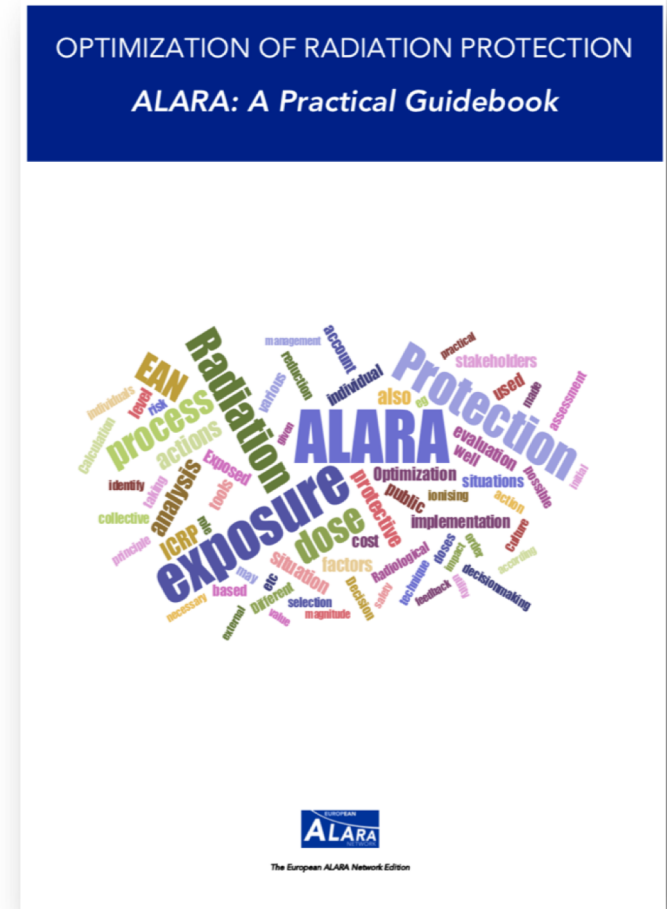
Below the newsletter section, there is an announcement for the "17th European ALARA Network workshop on 'ALARA in emergency exposure situations'", published on 24 May 2017. The workshop was organized in collaboration with NERIS, Lisbon, Portugal, from 15 to 17 May 2017. The aims and objectives of the workshop are detailed, focusing on emergency exposure situations and the need for quick response and sustainable countermeasures.

On the right side of the page, there is a "NEXT EVENTS" section listing upcoming workshops and steering group meetings, all marked as "not yet known". Below this is a "Login Form" with fields for Username and Password, a "Remember Me" checkbox, and a "Log in" button. Links for "Forgot your username?" and "Forgot your password?" are also provided.

At the bottom of the page, the URL <http://www.eu-alara.net/> is displayed.

Modes in Networking

- In 2019, the EAN Working Group on ALARA Culture published *Optimization of Radiological Protection - ALARA: A Practical Guidebook*
- Provides an extensive description of the ALARA principle and a clear and practical picture on how to apply it
- Develops on the specificities of ALARA for the different exposure situations
- Illustrated by more than 40 examples of application in different exposure situations: nuclear installation, medical facilities, 'natural' exposure, emergency exposure situations etc. coming from the field



Modes in Networking

- **EAN sub-networks and working groups**
- When a topic/sector should be discussed deeper
 - 2002: **EASN** – European ALARA Sub-Network on Research Reactors (closed in 2009)
 - 2003 : European ALARA Network on **NDT** (Non-Destructive Testing)
 - 2005 : **ERPAN** – European Radiation Protection Authorities Network (continues to meet 1 year)
 - 2007 : **EAN_{NORM}** : European ALARA Network for Naturally Occurring Radioactive Material (merged in 2017 with EU NORM to create European NORM Association)
 - 2009 : **EMAN** : European Medical ALARA Network (terminated in 2012)

Modes in Networking

- Working groups on
 - **ALARA Training** (*no longer active*)
 - **ALARA Tools** (*no longer active*)
 - **ALARA Culture** (2009): Elaboration of a book: ***ALARA: A practical Guidebook***
- **Establishment by IAEA of ALARA networks based on EAN organisation**
 - **RECAN** – European and Central Asia
 - **ARAN** – Asia and Pacific
 - **+ 2 African ALARA Networks (2018)**

Modes in Networking

- **Formal cooperation** with other European organisations and networks have been established
- Observer, participation in EU projects; organisation of joint workshop etc.
 - **EFNDT**: European Federation for NDT
 - **EFRS**: European Federation of Radiographer Societies
 - **ESR**: European Society of Radiology
 - **EFOMP**: European Federation of Organisations for Medical Physics
 - **NERIS**: The European platform on preparedness for nuclear and radiological emergency response and recovery
 - **EUTERP**: European Platform on Training and Education in Radiation Protection
 - **ENETRAP**: European Network on Education and Training in Radiological Protection
 - **EURADOS**: European Radiation Dosimetry Group

Examples of impacts

- **Conceptual framework of RP** : influence on ICRP (ex. RP06 paragraph 133 (dose coefficients and low radon emanation from W9))
- EAN is now a Specific Liaison Organization of ICRP
- **Regulatory body activities** : Modification of regulatory requirements and/or radiation protection regulations and practices (ex. national plan in Norway)
- **EU research**: participation of EAN in
 - the SMOPIE project (internal exposure from Industrial Natural Sources (W1&3));
 - EURAIDE (European Accident and Incident Data Exchange)
 - TRASNUSAFE (Training Scheme on Nuclear Safety Culture)
- **Devices**: development of an alarm device called “sentinelle” for advising when the NDT source is not back in the container (W5)
- Establishment of **database** on radiation protection incidents: RELIR/OTHEA:
<http://relir.cepn.asso.fr/index.php/en.html>
- **In 2021, a working group is aiming to evaluate the outputs and the impacts of EAN workshops in the different fields of radiation protection in Europe**

Challenges

- **EAN Strategic Agenda 2021-2025**
- **Some topics to be tackled:**
 - Focusing on key ALARA themes, with topical workshops and working groups
 - Building on collaboration and partnership, developing new relations
 - Communication with existing media and improving visibility
 - Running the network: workflow, next generation and sustainability
- **Facing an erosion in Members / Resources**
- Improving the EAN visibility and openness
- Encouraging the participation of new members, of new stakeholders

Efficiency demonstrated

- EAN is ...
- **a forum for discussions** between stakeholders who otherwise would have little or no opportunity to interact.
- **a media of information** with regard to ALARA
- actively **sharing and disseminating practices and experience** to help raise standards
- **a time-saving search tool** providing a rapid means of getting answer to question, through a contact list of experts or by the use of surveys
- **an alerting mechanism**: information on incidents can be disseminated quickly; new RP issues can be identified and disseminated
- **EAN is entirely based on the sharing of common objectives in the improvement of radiation protection communication and on the motivation and enthusiasm of its Members**