



European ALARA Network

STRATEGIC AGENDA 2015 – 2020

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PRESENTATION OF THE EUROPEAN ALARA NETWORK

At the end of the 1990's, the ALARA principle (As Low As Reasonably Achievable) was being implemented in European nuclear power plants as a routine practice as far as external exposure for workers is concerned. However its application in other aspects was far from universal. Therefore it appeared worthwhile to create a European ALARA Network (EAN) to promote further European research on topics dealing with optimisation of all types of occupational exposure, as well as to facilitate the dissemination of good ALARA practices within all sectors of European industry and research. A brief chronological summary of the evolution of EAN is given below:

1996 **EAN was created in 1996** following a joint initiative of the Nuclear Protection Evaluation Centre (CEPN, France) and the National Radiological Protection Board (now Public Health England, PHE, United Kingdom).

CEPN and NRPB took on the role of EAN coordinator. A Steering Committee Group composed of national contact points was constituted to run the network and to follow-up and disseminate in their respective countries the work performed within the project.

1996 - 2004 EAN was partly funded by the European Commission DG Research in its 4th (1996-1999) and 5th (2001-2004) European Framework Programmes for research and technological development. In the meantime (2000), EC DG Environment also provided funding during a one-year interim period.

2004 At the end of the 9 years spent within the scope of the programmes of the European Commission, all partners of EAN committed themselves to continue to work within **EAN in a self-sustainable manner**.

2005 In July 2005, a legal entity for managing the EAN coordination and financing the network was set-up as a **non-profitmaking association** under French Law for an initial period of 5 years. The operation of EAN is ensured by a Coordination Team composed of representatives from CEPN and PHE.

2009 Two other national organisations joined the network (making a total of **20 members**).

Extension of the EAN association and organisation of the 1st Seminar to elaborate the EAN Strategic Plan for 2010 – 2015.

2013 EAN become a Special Liaison Organisation of the International Commission on Radiation Protection (ICRP).

2014 Extension of the EAN association and 2nd Seminar to elaborate the EAN Strategic Plan 2015 – 2020.

EAN MEMBERSHIP

The main resources of EAN come from the fees currently paid by 14 of the 20 EAN Members, which comprise the Administrative Board. These resources are mainly used to finance the work of the Coordination Team. As of 1st January 2015, the following organisations are members of EAN:

- Steering Group Members, participating to the Administrative Board:

BfS – Federal Office for Radiation Protection, Germany

CEPN – Nuclear Protection Evaluation Centre, France

CSN – Nuclear Safety Council, Spain

EKOTEH Dosimetry Co., Croatia

GAEC – Greek Atomic Energy Commission, Greece

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

PHE – Public Health England, United Kingdom

NRPA – Norwegian Radiation Protection Authority, Norway

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

SCK•CEN* – Belgian Nuclear Research Centre, Belgium (EAN Chairmanship since 2010)

Seibersdorf Laboratories GmbH, Austria

SFOPH – Swiss Federal Office of Public Health, Switzerland

SSM – Swedish Radiation Safety Authority, Sweden

SUJB – State Office for Nuclear Safety, Czech Republic

* SCK•CEN represents in the EAN Steering Group several Belgian organisations that support together EAN: FANC, Belgoproces, Belgian Association for Radiation Protection and Belgonucléaire.

- Other Steering Group Members are:

ASN – Nuclear Safety Authority, France

GR – Icelandic Radiation Safety Authority, Iceland

CSN – Nuclear Safety Council, Spain

ISS – Italian Institute of Health, Italy

ITN – Nuclear and Technological Institute, Portugal

SIS – National Institute for Radiation Protection, Denmark

SRPA – Slovenian Radiation Protection Administration, Slovenia

STUK – Radiation and Nuclear Safety Authority, Finland

The European Commission (EC DG Energy) and the International Atomic Energy Agency (IAEA) also follow and encourage EAN activities as observers.

GENERAL OBJECTIVES OF EAN

- **Promote the implementation of the ALARA principle for the protection of worker, public and patient exposures in all situations.**
- **Engage stakeholders in ALARA and provide a focus and a mechanism for the exchange and dissemination of information, knowledge and practical experience.**
- **Identify and investigate topical issues of common interest to further improve the implementation of ALARA.**

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

EAN MEMBERS SHARED INTERESTS

PROMOTION OF A PRACTICAL IMPLEMENTATION OF ALARA

The need for, and significance of, applying the ALARA principle are stated in ICRP recommendations, as well as in European/International Basic Safety Standards, and in national regulations. It is the role of the radiation protection community to convert the ALARA principle into individual and collective policies, procedures, acts and behaviours. There is still room for improving the practical implementation of ALARA and for achieving better harmonisation in radiation protection policies and practices, at the European level.

DISSEMINATION OF ALARA CULTURE

EAN must contribute to the definition, contextualisation, evolution and dissemination of ALARA culture by promoting the practical implementation of the ALARA principle in every sector of activity that implies a radiological risk for the workers or the public, in all exposure situations (planned, existing and emergency).

SHARING EXPERIENCE

EAN is a non-institutional platform of radiation protection specialists, who consider that the feedback exchange through networking and co-operation as one of the most effective and efficient ways of improving the practical implementation of ALARA, in all sectors of activity.

THE ACTIVITIES OF THE NETWORK

EAN regularly organises **Workshops** on specific topics related to the optimisation of radiological protection. The subject is selected to cover areas where the Steering Group believes that significant improvements in terms of ALARA implementation could be found. During the Workshops, contributions from EAN Members and other participants are sought, and discussions in small working groups of stakeholders are arranged with the aim of identifying recommendations to improve the practical implementation of ALARA at the European level. Since 1997, the Network has organised 15 Workshops, as follows:

EAN WORKSHOPS

- "ALARA and Decommissioning", Saclay, France, December 1997
- "Good Radiation Practices in Industry and Research", Chilton, UK, November 1998
- "Managing Internal Exposure", Neuherberg, Germany, November 1999
- "Management of Occupational Radiological and Non-radiological Risks: Lessons to be Learned", Antwerp, Belgium, November 2000
- "Industrial Radiography: Improvements in Radiation Protection", Rome, Italy, October 2001
- "Occupational Exposure Optimisation in the Medical and the Radiopharmaceutical Sectors", Madrid, Spain, October 2002
- "Decommissioning of Installations and Site Remediation", Arnhem, The Netherlands, October 2003
- "Occupational Radiological Protection Control through Inspection and Self-assessment", Uppsala, Sweden, September 2004
- "Occupational Exposure to Natural Radiation", Augsburg, Germany, October 2005
- "Experience and new Developments in Implementing ALARA in Occupational, Patient and Public Exposures", Prague, Czech Republic, September 2006
- "ALARA in Radioactive Waste Management", Athens, Greece, April 2008
- "ALARA issues arising for Safety and Security of Radiation Sources and Security Screening Devices", Vienna, Austria, October 2009
- "ALARA and the Medical Sector", Oscarborg Fortress, Norway, June 2011
- "ALARA in Existing Exposure Situations", Dublin Castle, Ireland, September 2012
- "Improving ALARA Culture through Education and Training", Rovinj, Croatia, May 2014

The **European ALARA Newsletter** is published every 6 months. It includes ALARA-related articles (evolution of regulations, results of research, feedback experience from ALARA operations, lessons-learned from incidents, etc.) as well as experts' viewpoints and ALARA information. Since 1996, 36 issues of the Newsletter have been published and distributed to thousands of stakeholders through the national contact persons.

By 2000, it was decided to make use of EAN as a vehicle to support European **surveys on topics of interest in radiological protection**. The first survey dealt with the implementation of the European BSS. Since then, many other surveys have been performed; the results are put online* and generally published in the EAN Newsletter.

EAN SURVEYS

The Implementation of the European Directive 96/29 and 97/43, October 2001

The Management of Radioactively Contaminated Soils, November 2006

Potential Exposure in Nuclear Installations, January 2007

The Diagnostic Reference Levels (DRLs) in Europe, February 2007

Radon Exposure Management, January 2010

Dose Constraints, November 2011

Radiation Protection of Aircraft Crew, February 2012

Delineation and Access to Regulated Areas, November 2013

* The report of the surveys can be found on the EAN website (in the "Survey" menu).

EAN also supports the **setting-up of sub-networks on specific topics**. For instance, the European Radiation Protection Authorities Network (ERPAN) was created by EAN members in 2006, following a recommendation of the 8th EAN Workshop. This sub-network deals with operational exchanges on regulation and control activities such as specific inspections and transcription of European Commission (EC) Directives into national regulations. In 2009, a working group on ALARA Culture was also set up.

Newsletters, results of the surveys, information and news related to the network and sub-networks and their activities are published on the **EAN website**.

NEW CHALLENGES AND OBJECTIVES FOR 2015 – 2020

THE CONTEXT OF RADIOLOGICAL PROTECTION

The context of radiological protection worldwide reveals several priority areas and confirms there are still many challenges in the ALARA field. The management of existing exposure situations will be one of the most important radiation protection challenges in the forthcoming years, notably in the field of radon and NORM. Furthermore, the feedback from the Fukushima accident has shown that the optimisation of exposures in emergency and post-accident situations is challenging.

There is still a need for the establishment and improvement of ALARA practices in the medical sector to keep pace with the development of new imaging techniques. The number of exposed individuals (both patients and practitioners) and the magnitude of the doses received (individual and collective) indicate that there is much more scope for ALARA.

The industrial radiography sector cannot be forgotten as it still shows high individual doses compare to other sectors and regularly feeds the news with incidents. Optimisation, for example through the setting and use of dose constraints, and justification with respect to the choice of inspection technique, both need to be considered.

EAN can play a role in these sectors by influencing and evaluating the practical implementation of ALARA and helping with the diffusion of radiological protection culture. The Strategic Agenda should take these topics into account as well as favouring partnerships and collaborations with other concerned organisations.

EAN was a “first-of-its-kind network” and its structure and management has since inspired several other networks. The Strategic Agenda is an opportunity to revisit the EAN model, the position, role and activities of the Network and to increase its visibility. Stakeholder involvement should be a constant theme, as well as the participation of the younger generation in the Network.

STRATEGIC OBJECTIVES

Objective I: Focus the work of EAN on key ALARA issues

- Encouraging relationships and partnerships with other organisations on the challenging issues
- Organisation of topical Workshops and production of recommendations and other relevant documents
- Elaboration of feedback documents from the Workshops and follow-up of recommendations
- Establishment of working groups on challenging issues, by the initiative of EAN Members or other organisations

👉 **Objective 2: Increase stakeholder involvement**

- Targeted invitations to the Workshop and encouraging the participation of stakeholders to all EAN activities
- Promote the involvement of new, or poorly represented, stakeholders such as manufacturers, employers, employees and representatives of the public.

👉 **Objective 3: Involvement of the younger generation in the Network**

- Set up a mentoring scheme for new members
- Promotion of Workshop participation for possible new members
- Participation of possible new members through EAN activities

👉 **Objective 4: Communication and visibility**

- Publication in scientific journals (nuclear, medical and safety-related journals)
- Promotion of the Network through social media (Facebook, Twitter, LinkedIn ...)
- EAN attendance and presentations at national and international conferences and other events.

EAN 2015 – 2020 WORK PROGRAMME

	AIM TO FULFIL ...			
	Objective 1	Objective 2	Objective 3	Objective 4
GENERAL WORK ACTIVITIES				
➤ Organize Workshops and surveys on the issues at stake				
➤ Draft and collect articles on the issues at stake (to be published on the EAN Newsletter/website)				
➤ Act as a platform by collecting feedback for: <ul style="list-style-type: none"> • HERCA (implementation of the regulation), • ICRP (implementation of the Commission's recommendations), • European Commission (implementation of the new BSS). <p>Collection of feedback will be more fruitful with the help of the sub-networks like ERPAN or EAN_{NORM}</p>				
➤ Present EAN activities through oral presentations and posters: <ul style="list-style-type: none"> • Directly to other organisations (ICRP, HERCA, ERPAN), • At radiation protection conference (IAEA, ...) 				
➤ Contact and invitation to topical meetings: <ul style="list-style-type: none"> • Organisations: EFNDT, EMAN, EFOMP, EFRS, ESR, EUTERP, EURADOS • And radiation protection companies 				
➤ Advertise good example of ALARA practices (in the Newsletter and the website) and lessons-learned from incidents (on OTHEA website)				
➤ Diffusion of the Workshop recommendations, position papers and EAN articles in scientific journals				
➤ Promotion of EAN activities through social media				
➤ Favour the participation of Central and Eastern Europe countries in EAN				
SPECIFIC WORK ACTIVITIES				
Existing exposure situations				
➤ Favour collaboration with ICRP: participation to Task Group on Ethics in Radiological Protection or NORM				
➤ Further collaboration with ICRP through the collection of the feedback on the implementation of ICRP recommendations				
ALARA Culture				
➤ Publication of the "ALARA Book" by the EAN Working Group "ALARA Culture"				
➤ The European Training and Education in Radiation Protection Foundation (EUTERP) collaborates with the EAN and attend the Steering Committee as Observer				
Medical sector				
➤ The European Federation of Organisations in Medical Physics (EFOMP) collaborate with the EAN and attend the Steering Committee as Observer				
➤ Reactivate contact and initiate specific practical collaboration with EMAN, EFRS and ESR. Specific focus on the new generations				
Industrial Radiography				
➤ In collaboration of EFNDT: organisation of the 16 th Workshop on "Industrial Radiography and Non-Destructive Testing" (Spring 2016)				
➤ Search for collaboration with ICRP Task Groups				
Nuclear Industry				
➤ Contact and explore cooperation with ISOE – especially in the field of decommissioning activities				