Why a Unified Effort is Essential

Lorenzo Nicola Mazzoni

lorenzonicola.mazzoni@uslcentro.toscana.it

AUSL Toscana Centro, Medical Physics Unit Prato-Pistoia

EFOMP liaison at ICRP

What is happening...

Increasing number of medical exposures and novel practices following technological and medical evolutions (more than 4 billions medical exposures per year, UNSCEAR)

About 65 reactors are under construction across the world. About 90 further reactors are planned (WNA website, 2025)

Several industrial and agricultural (food) applications

Need for preparedness and response to nuclear and radiological accidents

Space travels

. . .

There is a need to use ionizing radiation for different purposes through reasonable choices and transparent and shared decisions, to promote well-being of people and societies' development in a safe and effective way

What is going wrong...

PHYSICS TODAY

LATEST

CURRENTISSUE

COLLECTIONS V

WEBINAR

Volume 76, Issue 10

1 October 2023



Alarm sounded over declining US radiation professional

workforce FREE

As retirements surge, shortages threaten to slow ac improved understanding of the physiological impact

David Kramer

Bulletin
of the
Atomic
Scientists

Doomsday Clock | Nuclear Risk | Climate Change | Disruptive Technologies | Biosecurity | Support Our Work

Q

f '

IT IS 89 TO

The authoritative guide to ensuring science and technology make life on Earth better, not worse.

Strategies for engaging with future radiation protection professionals: a public outreach case study

Nuclear safety staffing in the United States: a crisis with no easy fix

By David Gillum, Itty Abraham, Kathleen M. Vogel | July 14, 2023

P Cole^{1,16}, B T Gornall², M D Wood³, R Whitcher⁴, A Bannon⁵,

Abstract

It is evident that there is a nuclear skills shortage within the UK,



National Crisis: Where are the Radiation Professionals? (WARP)

2024 Italy - 18% residency pos. in RadOnc were assigned!

Vancouver Call for Action

2023-05-0



"A shortage of investment in training, education, research, and infrastructure seen in many sectors and countries may compromise society's ability to properly manage radiation risks, leading to unjustified exposure to or unwarranted fear of radiation, impacting the physical, mental, and social well-being of our peoples. This could unduly limit the potential for research and development in new radiation technologies for beneficial purposes"

There is a need to use ionizing radiation for different purposes through reasonable choices and transparent and shared decisions, to promote well-being of people and societies' development in a safe and effective way

But

without resources (professionals, etc.) the risk is that any recommendation, any good idea, will remain just ink on paper

Why?

The resource limitations ... may be related to a variety of factors, including national policies ...,

a mistaken perception that everything is under control and no work is needed, or due to the underestimation or lack of knowledge of the role that the beneficial use of ionising radiation plays in many sectors of science and society today.

ICRP's Vancouver call for action (2023)

Several regional and international organisations, shared the danger posed by a decline in interest in radiological protection, embraced the Vancouver call and agreed to further support ICRP's initiative to strengthen expertise in radiological protection.

CRCPD, EURAMET, EANM, EFOMP, ENISS, EURADOS, EUTERP, HERCA, ISOE, IAEA, ICNIRP, ICRU, IOMP, IRPA, MELODI, NCRP, SHARE, UNSCEAR, WNA

"Strengthening the expertise in radiological protection is a collective priority for our community"



Contents lists available at ScienceDirect

Physica Medica

journal homepage: www.elsevier.com/locate/ejmp



EFOMP's corner

Support for the "Vancouver call for action to strengthen expertise in radiological protection worldwide": the position of organisations in formal relations with the International Commission on Radiological Protection (ICRP)

Lorenzo Nicola Mazzoni ^{a,*}, John Damilakis ^b, Bernard Le Guen ^c, Siamak Haghdoost ^d, Annette Röttger ^e, Teemu Siiskonen ^f, Ruth McBurney ^g, Miroslav Pinak ^h, Rodney Croft ⁱ, Gunde Ziegelberger ^j, Meritxell Martell ^k, Sama Bilbao y Leon ^l, Marcel Lips ^m, Kathryn A. Higley ⁿ, Efi Koutsouveli ^o, Paddy Gilligan ^p, Borislava Batandjieva-Metcalf ^q, Jing Chen ^r, Michael Lassmann ^s, Jens Kurth ^t, Søren Holm ^u, Michel Koole ^v, Filip Vanhavere ^w, Oliver Hupe ^x, Jean-Luc Lachaume ^y, Joanne Stewart ^z, Julie Lucey ^z, Vincent Gregoire ^{aa}, Thomas Rockwell Mackie ^{ab}, Laura J. Atwell ^{ac}, Chuan Wang ^{ad}, Fieke Dekkers ^{ae}, Bernd Lorenz ^{af}, Tapani Eurajoki ^{ag}, Susan Molyneux-Hodgson ^{ah}

What is needed... ICRP's call – big picture

National governments ... strengthening resources for radiological protection research ...

... institutions launching and sustaining long-term research programmes.

Universities developing undergraduate and graduate university programmes and making students aware of job opportunities in radiation-related fields.

Using plain language when interacting with the public ...

Fostering general awareness of proper uses of radiation ...

What is needed... my small personal picture

Reinforce (somewhere also rebuild?) a system of competences, skills, etc.

High level education and training

Making radiological science and related professions more appealing

Political actions at national, regional and international level (IAEA, WHO, etc.)

A community (ICRP-SLO?)

Encourage dialog and communication

Enthusiastic People

Money



Air your views!!

Lorenzo Nicola Mazzoni

lorenzonicola.mazzoni@uslcentro.toscana.it