



# Communicating the Risks of NORM

NORM X 2022

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On behalf of the  
IRPA NORM Task Group

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# Content

- Provide some background
- Overview of IRPA Task Group on NORM
- Describe a recent workshop on communicating risks of NORM
- Provide an overview of results
- Summary



# Overview of Task Group

- Group of practitioners, currently 18 members from all continents with different professional background
  - 6 Researchers
  - 6 Regulators, Authority
  - 6 Consultants
  - 1 Experts from industry
- (Small) network of practitioners that helps each other
- From all over the world



# Aims of TG

- Increase awareness of issues related to NORM in industry and to develop a common understanding of requirements, good practice and challenges faced by industry practitioners and regulatory bodies
- Development and promotion of a library of good practice documents
- Influencing policy makers, regulators and industry to ensure that controls for NORM are commensurate with the actual radiological risk
- Identify gaps at a global scale related to ethical foundations of radiation protection in working with NORM and stimulate open discussion of such issues
- Engage with industry and collaborate and co-ordinate with other groups of similar interests in this field, including IAEA and ENA
- Promote practical solutions which apply the graded approach to regulation by editing position papers and website information
- Organise workshops, webinars and similar events for the dissemination of experience and good radiation protection practice

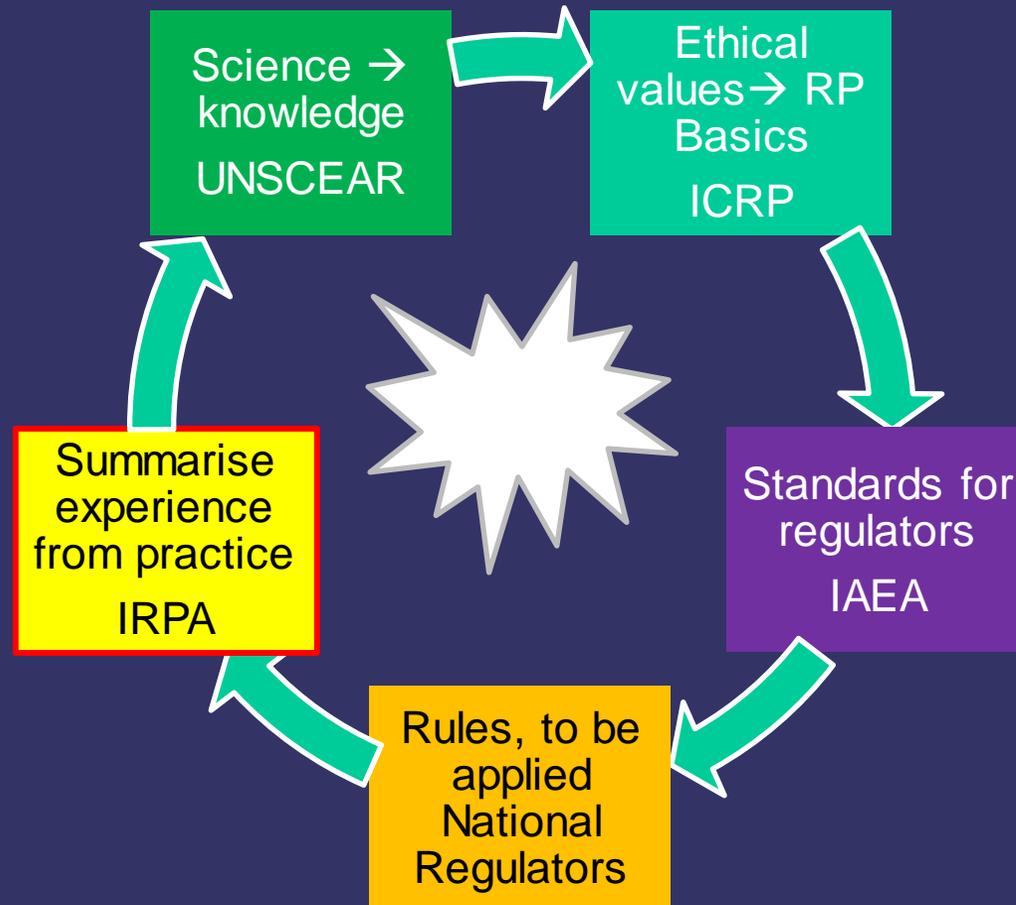


# Task Group Members

<b>Name</b>	<b>Organisation</b>	<b>Country</b>
Cameron Jefferies (IRPA Mentor)	IRPA	Australia
Jaekook Lee	KARP	South Korea
Oskar van Dongen	NVS	Netherlands
Christian Kunze	FS	Germany
Stephane Pepin	BVS	Belgium
Analía Canoba	SAR	Argentina
Kazuki Iwaoka	JHPS	Japan
Gregory Onomakere Awiri	NSRP	Nigeria
Nick Chambers	SRP	UK
Rosabianca Trevisi	AIRP	Italy
Katerina Rovenska	CSRP	Czech Rep
Fidel Grandia	SEPR	Spain
Francis Otoo	GARP	Ghana
Helene Caplin	SFRP	France
Phil Egidi	Technical Adviser	USA
Boguslaw Michalik		Poland
Rainer Gellermann	FS (& ENA)	Germany
Jim Hondros	ARPS	Australia



# Our Role in the Wider RP system

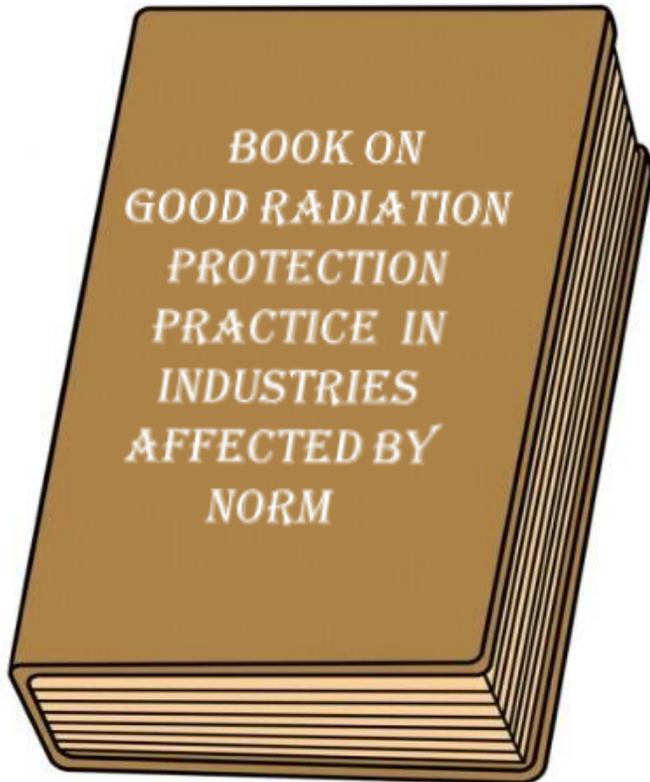


- Science (UNSCEAR; creates knowledge)
- Ethical evaluation (ICRP; creates basics for RP)
- Standards for regulators (IAEA).
- Rules and legal framework to be applied (National regulators)

The practitioners apply the system if RP in daily life and collect (create) experiences.

**We “close the loop” by collecting and communication our experience from the application of the system developed by the other ones and help to improve it on this way.**

# Our Big Plan



*myloviewr*

- To be finalized by the IRPA Conference in Orlando in 2024
- To be simple and practical
- Be different from existing publications
- Think about countries new to NORM or with limited resources using this document (and maybe also members of the public)



# Communication and Experience

- **Communication needs experience – experience needs communication.**
  - Between experts and experts
  - Between experts and managers, workers and other laypersons
  - Between experts and the public
- **Collecting experience needs communication about communication.**
  - What communication was successful?
  - What lessons have been learned?
  - How RP can be improved?



# Collecting Experience

- In 2020, the IAEA held a conference on NORM
- The IRPA NORM Task Group was invited to chair a workshop on communicating the risks of NORM
- The workshop consisted of talks followed by questions and discussions
- The speakers and their presentations were
  - Analia Canoba - Communication between regulators and companies
  - Riaan van der Westhuizen - Communication within companies with NORM
  - Teng Iyu Lin - Communication with customers or the public
  - Nick Chambers - Communication between RP experts.
- The following slides provide an overview of the talks and discussion



# Ensuring an Understanding of the Facts and Knowledge

- Effective communication depends upon a clear understanding of scientific basics and risks of NORM
- Assessment / characterisation of NORM materials is the most important first step
- This ensures that radiation protection professionals speak from a position of competency
- This also provides the basis for keeping hazards in perspective



# Maintaining Hazards in Perspective

- All speakers noted that when communicating NORM risks, it was important to ensure that the radiological hazards are considered with other hazards
- This means that there is a need to understanding the other hazards that might exist
- It was noted that the controls in place for other hazards usually act to control radiation (for example dust controls)
- The speakers gave some practical examples of risks in perspective – for example, risk tables for a mine with NORM were shown



# Relationships

- All speakers noted that the basis of communication is trust, openness and honesty
- However, it was noted that there is a need to have specific skills and specific knowledge for communicating with the public
- Since there are many different perspectives (workers, public, regulators for example), it was important that practitioners understand the perspectives of other people and groups
- Education should also commence at the beginning, for example, having natural background radiation as part of the school curriculum.



# Practical Examples

- The speakers provided some practical examples of how they undertake radiation risk communication in their own areas
- It was noted that there is no “one size fits all” and that communication depends upon the deliverer and the audience.
- There were requests from the audience for more practical examples. This shows that there is a need for practical advice
- This request was taken on board by the Task Group and will be an important part of our handbook.



# Some Practical Examples

- Providing the community with monitoring equipment
- Allowing the community to undertake its own monitoring
- Conducting radiation monitoring experiments in schools (in one example a real time radon monitor placed in a classroom provides a practical radiation experiment and the data is useful for STEM)
- Using comparisons of radiation levels and of “risks from other hazards”
- Providing education for community leaders
- Listening to concerns of the community and community leaders
- Working to simplify (or clearly present) the system of protection



# Summary of Workshop

- A need for a database of practical community communication best practices.
- Work to continue harmonisation of international standards
- Development of tools, recommendations, methods for comparing radiological risks with other risks occurring in NORM industry, particularly chemically toxic substances.
- NORM Task Group to continue the development of its handbook



# Summary

- Collection and dissemination of experience is a key element for improving the RP system.
- Communication about experiences of practitioners is part of the activities of the IRPA TG on RP in NORM affected industries.
- In the context of an IAEA workshop, the TG discussed the topic of communication on NORM risks.
- In line with IRPA approach, the TG will continue to promote a “graded approach to regulation” through understanding the actual risks and putting these risks in the right perspective
- Continue to communicate on practical and realistic radiation protection in industries affected by NORM



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**THANK YOU FOR YOUR ATTENTION!**