



**IAEA International Conference on Radiation Safety:
Improving Radiation Protection in Practice
(Virtual Event)
9-20 November 2020**



**Radiation safety in the next decade:
Key areas**

- Ethics are likely to play a more important role in decision-making in the future.
- Application of two of the fundamental principles of radiation protection – justification and optimization – needs to be improved.
- Decisions on optimization of protection and safety focus too much on dose reduction; a more holistic approach that balances all benefits and risks is necessary.
- Regulatory bodies need to strengthen their application of the graded approach.
- The concepts of exemption and clearance are part of the graded approach. Clearance, which allows the recycling and reuse of materials, is consistent with many national policies to reduce the production and associated costs of waste. Both concepts need better and wider application.
- The international approach to managing radiation exposures in the so-called NORM industries is currently inconsistent and unnecessarily complex.
- The challenge of managing existing exposure situations is really a challenge in how to apply the principles of justification and optimization, as well as the graded approach, to natural radiation sources that are already present throughout our environment.
- The Linear Non-Threshold hypothesis and precautionary principle are important components of the System of Radiological Protection. Both are conservative in nature. Additional conservatism in modelling and decision-making may be counterproductive.
- Non-Medical Human Imaging has many well-established and diverse applications worldwide. Justification needs to be considered on a case-by-case basis and, if deemed justified, these uses need to be regulated.
- Radiation protection professionals should not try to persuade or coerce the public. Instead, they should provide the necessary scientific and technical information to encourage informed decision-making by the public. Ultimately the public will decide what it considers safe.