

Outline of the Future of Radiological Protection Digital Workshop and beyond

Keeping the ICRP Recommendations Fit for
Purpose (Clement, et al.)

Journal of Radiological Protection

Areas of Research to Support the System of
Radiological Protection (Laurier, et al.)

Radiation and Environmental Biophysics

Basic information of the workshop

Dates:

- ICRP's first digital Workshop: 14 October to 3 November, 2021
- Live Sessions: 19 – 20 October, 2021
- On - demand presentations: 14 October to 3 November, 2021

• Participants:

- Numbers of registrations: 1466
- Numbers of countries: 99
- Numbers of viewers: 889
 - Session 1: 826; Session 2: 643; Session 3: 608; Session 4: 521;
 - On - Demand: 7294 (total of all 44 on - demand presentations)
 - The most watched on - demand video: TG 91: Radiation Risk Inference at Low - Dose and Low - Dose Rate Exposure for Radiological Protection Purposes (311 views)

- Website: <https://www.icrp.org/page.asp?id=510>

LIVE SESSIONS

• SESSION 1 The Big Picture

- Review & Revision of the System of RP
- Working Together on Development of International Guidance Documents in Radiation Safety
- IRPA Perspective on the Review of the System of Radiological Protection
- What Should be the Role of Higher Education in the Future of Radiological Protection?
- Keeping the ICRP Recommendations Fit For Purpose and the Need for a Global North - South Collaboration

• SESSION 2 Risk & Effects

- Revisiting Next Generation Effects of Ionizing Radiation
- Possible Improvements of Methodology for Calculating Radiation Detriment in the Future
- Reducing Uncertainties in Low Dose/Low Dose Rate Health Risks Requires International Networking in Research Implementation and Its Communication to Stakeholders
- A Proposal for the Application of Mathematical Models That Accurately Approximate Measured Data to Radiation Protection
- What is Needed to Keep ICRP Recommendations Fit for Future?

LIVE SESSIONS

- **SESSION 3 RP Concepts**

- Consistency and Complementarity of Ethical Values Across the System and Practice of Radiological Protection
- Summary of the Third SFRP/IRPA Workshop on the Application of the Concept of Tolerability
- The Need to Review Low - Dose Decision - Making in Radiation Protection
- Application of the Graded Approach for the Radiation Protection of Workers: Examples and Reflexions From European ALARA Networks
- Prospects on the ICRP Paradigm for Radiological Protection

- **SESSION 4 Application & Practice**

- Updating the ICRP'S Recommendations: A Practitioners Perspective
- The Need for Bridging the Gaps Between Theory and Practice: An Authority's Perspective in Some Identified Areas
- ICRP Publication 103 and Authorization and Inspection Processes
- Education and Training in Radiation Protection: Bridging the Gap to Keep ICRP Recommendations Fit For Purpose
- ICRP and a Century of Governance and Ethics for Radiation Protection in Medicine

ON - DEMAND PRESENTATIONS (1)

- TG 36: The Revision of Dose Coefficients in Diagnostic Nuclear Medicine
- TG 91: Radiation Risk Inference at Low -Dose and Low -Dose Rate Exposure for Radiological Protection Purposes
- TG 110: Protecting Animals Within a Revised Radiological Protection Framework
- TG 111: Factors Governing the Individual Response of Humans to Ionising Radiation
- TG 114: Reasonableness and Tolerability in the System of Radiological Protection : ICRP TG114 On -Going Reflections
- TG 114: The Three R's of Reasonable : Relationships, Rationale, and Resources
- TG 115: Risk and Dose Assessment for Radiological Protection of Astronauts
- TG 118: Building Upon ICRP92 on RBE, Radiation Weighting Factor and Q Factor
- TG 119: Effects of Ionising Radiation on Diseases of the Circulatory System and Their Consideration in the System of Radiological Protection

ON - DEMAND PRESENTATIONS (2)

- A Promising Concept for the Development of Means for the Prevention of Radiation Pathologies
- A Study for Dose Impact of MCR Operators in Nuclear Power Plants Under ICRP 30 and ICRP 60
- Advancing the Adverse Outcome Pathway (AOP) in Radiation Research: An International Horizon -Style Exercise
- Assessment of Non -Human Biota Dose at the El Amin University Proposed Site, Minna, Nigeria
- Attitudes of Staff Involved in Dental Radiological Procedures in Georgia Towards Radiation Protection and Safety: A Questionnaire -Based Study
- Calibration of a Dosimetric System in Hp (3) Using a Cylindrical Phantom
- Challenges in Radiation Protection for the Environment and Non -Human Biota
- Comments on the System of Radiological Protection
- Data Visualization and Gendered Questions in Radiation Protection

ON - DEMAND PRESENTATIONS (3)

- Developing the System of Radiological Protection to Enhance Its Contribution to the UN Sustainable Development Goals
- Does the System of Radiological Protection Require Science to the Nth Degree to be Fit For Purpose?
- HERCA Suggestions for ICRP Future Work Areas
- ICRP Recommendations May Be Fit - For - Purpose, But Without Adequate Human Resources, We Just Wont Get There
- ICRP: It is Time for a Change, Now!
- Impact of New Developments in the Commissioning of Operational Radiation Protección in Compact Proton Therapy Centers (CPTC)
- Influence of Different Operating Modes (High, Normal and Low) and FOV Sizes on Air Kerma Rate in Different Interventional Radiology Equipment
- InterDosi -Based Monte -Carlo Assessment of S -Values on a Voxel -Based Crab Phantom for Cs -137, Te -132 and Co -58

ON - DEMAND PRESENTATIONS (4)

- Issues Concerning the Carcinogenesis Risk and Implementation of the System of RP
- LNT Model is not an “ Assumption ”: Re -Analysis of Epidemiological Data Empirically Supports LNT
- Making ICRP Recommendations ‘Fit For Purpose’ for the Response to a Nuclear or Radiological Emergency
- Managing Ionising Radiation Risks : The Need for a Broader Context
- Modernising Optimisation in Decision Making
- Optimzation of Dose for Adult Chest Computed Tomography Examinations : A Phantom Study
- Personal Online Dosimetry Using Computational Methods: The PODIUM Project and the Future of Active Dosimetry
- Quantitative Assessment of Risk Perception for Low Dose Risk
- Radiation Detriment Calculation Methodology : Review of Current Non -Radiation - Related Parameters and Perspectives

ON - DEMAND PRESENTATIONS (5)

- Radiation Protection Culture , Communication and Context
- Radiation Protection Perspective to Recurrent Medical Radiological Imaging
- Radiation -Induced Stem Cell Competition and Dose -Rate Effect
- Radiological Risk in the Global Burden of Disease
- Scientific Improvement on Social Understanding of Tritium , Ten Years After the Fukushima Nuclear Accident
- Self -Assessed Radiation Safety Culture Across Sectors
- Strategies to Implement Dose Reference Level in Tomography in Brazil : Preliminary Analysis
- Unified Understanding of Biological Effects Caused by Radiation: Overcoming LQM Difficulties

The current status of the Workshop

- **ICRP Main Commission are making a summary of the Workshop**
 - Notes from Main Commission members
 - e.g. Classification of effects; Clarity and consistency; etc.
 - Notes from Session Moderators
 - e.g. RP of patients, especially with new radiation technologies and techniques; Quantification of radiation risks among offspring of exposed individuals, and integration into the RP system; etc.
 - Notes from Presenters
 - e.g. Tolerability and reasonableness have complementarities but they should not be confused. The existence of a band of flexibility between “acceptable” and “unacceptable” is useful; etc.
- **The summary will be submitted to a Journal**

Review & Refinement of the System of Radiological Protection

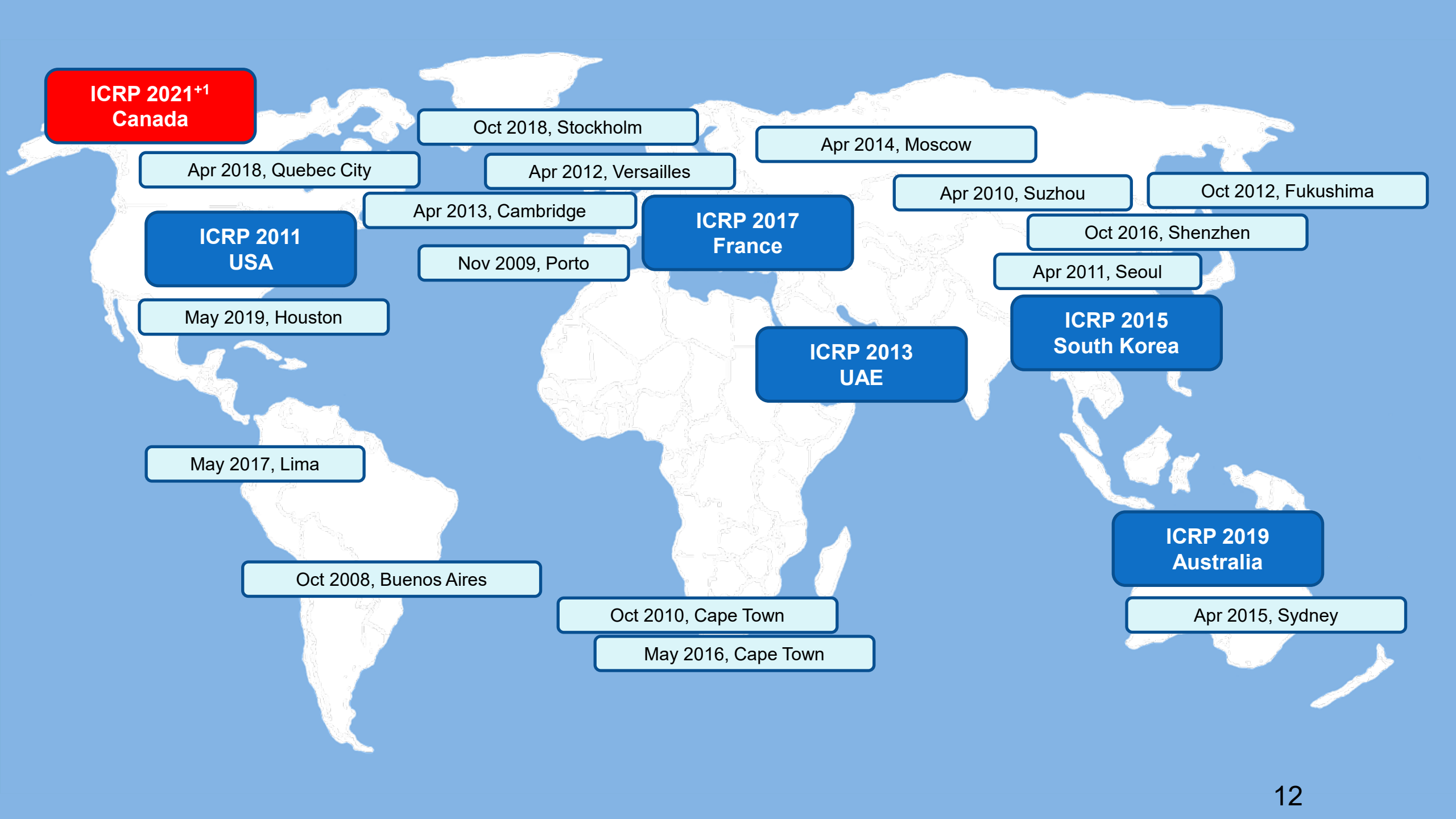
Workshop;
Webinar;
Consultation;
etc.

Identify areas
that need
attention

Develop specific areas
through wide and deep
engagement

Draft and consult on new
fundamental
recommendations

about a decade



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