

## **Joint Note on the Meeting on the International Systems of Radiation Protection: Bringing together Protection against Ionizing and Non-Ionizing Radiation**

The two international organizations responsible for developing the systems of radiation protection worldwide are the International Commission on Radiological Protection (ICRP), and the International Commission on Non-Ionizing Radiation Protection (ICNIRP). Both aim to protect people and the environment from potentially harmful effects of exposure to radiation, while recognizing the benefits that may be associated with some of these exposures.

Building on past interactions, ICRP and ICNIRP held a joint meeting in Munich, Germany, organized by the World Health Organization (WHO), hosted by the German Federal Office for Radiation Protection (BfS), and in cooperation with the International Labour Organization (ILO) and the International Radiation Protection Association (IRPA). The objectives of this meeting were to: increase mutual understanding of the approaches to protection; reach a common understanding of the state of the systems of protection; and explore possibilities for continued collaboration.

Over three days, November 8-10, 2017, the organizations exchanged information and views on the scientific basis, ethical basis, and basic principles of protection.

There are many commonalities between the systems of protection used for ionizing and non-ionizing radiation. There are also differences, most stemming from different biological effects. Ionizing radiation can cause stochastic and deterministic effects, while most effects due to exposure from non-ionizing radiation appear to be deterministic. However, stochastic effects have been demonstrated due to exposure to ultraviolet radiation, which bridges the ionizing and non-ionizing parts of the electromagnetic spectrum. For ionizing radiation there is a greater emphasis on optimization of protection even at low levels of exposure, whereas for non-ionizing radiation there is a greater emphasis on keeping exposures below thresholds for observed effects.

ICRP and ICNIRP share significant common ground, and have reached an agreement in principle to strengthen communication and collaboration between them and with other organizations with similar interests.