Education & Training

E&T activities build and maintain the high level of competence in radiation sciences and radiation protection in Europe. With a programme of workshops, seminars, summer schools, etc. that is integrated into the design and funding structure of all research a maximum impact and benefit from research, both sharing knowledge within the European low-dose research community and at the wider radiation protection field including radioecology, dosimetry, emergency response, and the medical use of radiation is obtained.

Priority areas are:
- Support for students and young scientists
- Promotion of E&T for dissemination
- Coordination and collaboration of E&T providers

Infrastructures

Ensuring the availability of key state-of-the-art research infrastructures required to support the research efforts of researchers in radiation health risk assessment is an essential basis for research activities. The priority is to promote the use of mature infrastructures and avoid unnecessary duplication. Furthermore, an effort is made to harmonise practices amongst multiple facilities. Finally, the sustainability of rare but necessary facilities needs to be guaranteed. This should include recommendations on the provision of the financial means to harmonise, sustain and access these facilities.

Priority areas are:
- Improvement of the access to infrastructures
- Re-use of archived materials using specific retro-spective approaches
- Enlargement and sustainability of RENEB including intercomparison exercises
- Favour open access to radiation research data within STORE

MELODI

The MELODI research platform is dedicated to low dose ionising radiation risk.

In April 2009, five national organisations, with the support of the EC, created the initial core of MELODI with a view to integrate the EU institutions with significant programmes in the field, while being open to other scientific organisations and stakeholders, and to develop an agreed strategic research agenda (SRA) and roadmap.

In 2010, MELODI was founded as a registered association with 15 members with responsibilities in radiation protection research. The research platform has grown steadily. As of August 2017, the association’s membership increased to 44.

Multidisciplinary
European
Low Dose Initiative

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MELODI (Multidisciplinary European Low Dose Initiative) is a European Platform dedicated to low dose ionising radiation risk research. Founded in 2010 as a registered association.
A major activity of MELODI is the establishment and updating of a long term (>20 years) Strategic Research Agenda (SRA) for research on low dose risk for radiation protection in Europe. The SRA is intended to guide the priorities for national and European research programmes and the preparation of competitive calls at the European level. The SRA is updated on a regular basis. The current SRA as well as former MELODI SRAs and MELODI statements are accessible via: http://www.melodi-online.eu/sra.html

A key priority for radiation protection research is to improve health risk estimates for exposures corresponding to the dose limits for occupational exposures and to reference levels for the exposure of the population in emergency situations.

The main uncertainties in radiation health risk evaluation are in the magnitude of cancer risk at low and protracted doses below 100 mSv, the magnitude of non-cancer effects below 500 mSv, and the variation in disease risk between individuals in the population.

Key research questions of the SRA:
- the dose and dose-rate relationship for cancer;
- non-cancer effects; and
- individual radiation sensitivity.

Research at low dose-rates or low doses presents significant challenges in the investigation of both radiation-related health effects and underlying biological mechanisms, because the magnitude of health risk and biological effects is expected to be low. A multidisciplinary approach is therefore essential. For this reason, each key question is sub-divided into three research lines priority and research areas, respectively.

Together the five platforms identify research priorities and contribute to the dissemination of knowledge; and provide an interface with international partners like WHO, UNSCEAR, ICRP and IAEA. The cross-platform cooperation enables a broad coverage of the whole field of radiation protection on the most important lines of research to be considered in the near future.

Building on and extending the highly successful MELODI workshops and in the light of greater integration of European research on Radiation Protection the established European platforms met for the first RPW2016.