## Kids 1 RP Science

We know a lot and any future research requires strategic planning and networking

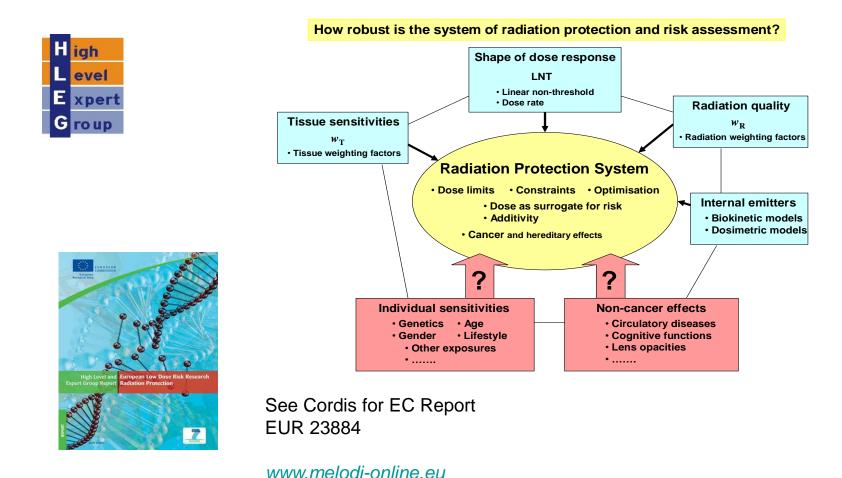
> A European perspective Wolfgang Weiss



Verantwortung für Mensch und Umwelt

IRPA 13, 15 May 2012

## 1. Low dose effects and risk

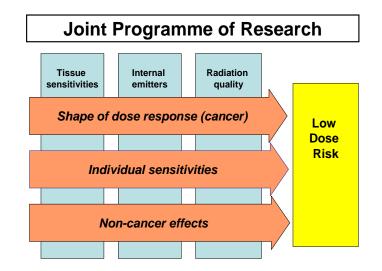




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**MELODI** has developed a long-term Strategic Research Agenda for the quantification of cancer and non-cancer risk at low doses and low dose rates (*www.melodi-online.eu*)

Health effects to be addressed: Cancer – including secondary cancers; Cardiovascular and neurological effects as well as effects on the central nervous system (CNS); Lens opacity.



Specific Questions: Protection of children, risk of external vs. internal exposures

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## **2.** Radioecology: Behavior of Radionuclides in the Environment and their Pathways to Humans.

- Transport/behavior of long-lived radionuclides (C-14, CI-36, I-129 and the other long-lived anionic radionuclides, Pb-210, Ra-226, Th-232, Uranium- & Plutonium-Isotopes, Am-241) relevant for the assessment of
  - Iong-term safety of waste depositories;
  - legacies of uranium mining and milling.
- Radioecology of aqueous ecosystems: marine, sweet water and surface near groundwater.
- Interaction of pedo- and hydrosphere with respect to exposure pathways and transport processes.
- > Natural analogues of radioactive waste in geological formations.
- Transport and availability of actinides in the Chernobyl exclusion zone.
- Bookkeeping of long-lived man-made radionuclides as measures of sustainability of human actions.

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