

Panel: Protection of workers, public and environment in a circular economy

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Challenges with NORM is a circular economy

- Reuse and recycling of residues
- Management of waste

Room for an integrated and graded approach

- Often **multi-hazards** and radiological risk **rarely dominant**
- **No real prospect of emergency** leading to tissue reaction or immediate danger of life
- Exposure can be **anticipated** but its level cannot without a **characterisation**
- There are **limited options** for management of residues and waste
- Potentially **high cost of regulation** in relation to reduction of exposure

RP Principles

- **Justification** of the protective actions
- **Optimisation of the protection**
 - Prevailing circumstances (options may be more limited)
 - Integration of RP in conventional health & safety standards
 - Stakeholder involvement, accountability, transparency, inclusiveness
- **Dose criteria**
 - Occupational dose limit: often too high
 - Public dose limit: what if exceeded?
 - Reference level: to be selected according to the characteristics of the ES

Implementation

- **Integrated** approach: all hazards, all impacts, 1 regulatory framework
- Involvement of **stakeholders** in the decision making processes
- Relevant and useful **information**
 - Characterisation at the beginning of the process
 - Realistic assessments
 - Provide expertise as necessary
 - Traceability of the information along the processes and the life of products
- Let people make **informed decisions**
 - Using indicators (e.g. index) or flexible criteria (RL)
 - Radon exposure treated as such (separately)
 - Provide support as needed