WORKING GROUP 2
CONSIDERATIONS IN CHOOSING DOSE REFERENCE LEVELS
Q1: What are the most important factors to consider when trying to determine what levels to set?

– Health risk (detriment)
– Practicality/realism
– Potential for improvement
– Cost
– Distribution of exposures/equity
– Variation of the natural background
– Social and individual benefits
– Prevention versus mitigation
– Graded approach
Q2: Should reference levels always be set in terms of annual (committed) effective dose? What about potential or probabilistic exposures?

• RL should be primarily set in terms of effective dose (actual or expected)
• RL can also be set in terms of derived quantitates such as concentration, radiation field etc linked to the dose
• RL may be set in terms of risk for potential exposures but limited practical use.
Q3: What would be considered to be suitable dose reference levels? For example, for a legacy NORM site, for a post-nuclear emergency scenario, for air crew?

- For legacy site: 1 mSv/a
- For radon: 10 mSv/a i.e. ~ 300 Bq/m3
  Some members of the group consider that 10 mSv is too high for both public and workers (non occupationally exposed)
- Post-nuclear emergency scenario: 1-20 mSv/a
  - Lower ends of the 1 to 20 mSv/a range as intermediate
  - Long term: 1 mSv/a
- Air-crew:
  - Between 5 and 10 mSv /a
  - For pregnant workers 1 mSv/a
Q:4 To encourage optimisation, do we need to establish a “lower dose reference level” ie, to indicate the opposite end of the “optimisation zone”?

• No, because this is contrary to the optimisation principle
• Possibility to lower the reference level to accompany the progress of optimisation (for example in post-emergency situation)
Any other important thoughts?

• Sharing experience between experts but also between stakeholders
• Development of a narrative about success stories to raise awareness in the affected population
• Involvement of communication experts to engage stakeholders
• Characterization is a long and resources demanding process
• Importance of raising the competence of professionals specially teachers and doctors