

# Working Group 3

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The holistic approach:

*How to be ALARA  
in the context of  
other risks?*



# Holistic Approach

Multi-risks situations: deconstruction +  
remediation, radioactivity + chemical

Taking into account sustainability as well



# Challenges

- How to evaluate the risks and put them into balance to identify priorities? (and given the uncertainties)
- Can one risk overwhelm the others? Can the management of one risk be in contradiction with the management of others?
- What are the key points to implement a successful holistic strategy?



# Evaluate the risks and put them into balance to identify priorities

- “Everyone wants to go home safely” (decom process) – “Everyone wants to stay in a safe home for now and in the future” (site)
- integrated (risk) approach from the perspective of the operator, regulator, public

Hazard Identification (HAZID) – Rank hazards (risk matrix) – Graded approach to mitigate the main risk

# Evaluate the risks and put them into balance to identify priorities

**Q: How to evaluate (quantify) risks and compare to other risks?**

- Stochastic versus deterministic effects (prevent deterministic effect, keep stochastic effects as low as reasonably achievable, both in RP as in Industrial Safety)
- Workers versus public

Hazard Identification (HAZID) – Rank hazards (risk matrix) – Graded approach to mitigate the main risk

# Can one risk overwhelm the others?

- See previous – HAZID and ranking
  - Can the management of one risk be in contradiction with the management of others?  
YES, e.g. asbestos
  - Accept the extra 10 microSv if working on the scaffolding is performed safer”
  - “Extra 10 microSv is not justified for a less relevant check”
- apply optimisation principle



# Key points

Optimisation (ALARA) is a case-by-case process

# CONCLUSIONS

- STATEMENTS:
- “Everyone wants to go home safely” (decom process) – “Everyone wants to stay in a safe home for now and in the future” (site)
- Requires integrated (risk) approach from the perspective of the operator, regulator and public
- Regulator determines legal boundary conditions
- Team work with all stakeholders is needed to have an overview of / to assess the hazards and risks
- Adjust your process (dynamic way to the ‘fixed end state’) along the way as new insights pop up – e.g. PDCA cycle / STAR-principle (Plan – Do – Check – Adjust and Stop – Think – Act – Review)
- Hazard Identification (HAZID) – Rank hazards (risk matrix) – Graded approach to mitigate the main risk