



Development and Dissemination of ALARA Culture

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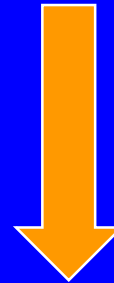



- ALARA culture
 - At the heart of radiation protection culture
- Need to further develop and disseminate ALARA culture
 - Increased risk awareness
 - New scientific knowledge regarding radiation effects
 - New exposure situations
 - Increase in the number of applications using ionising radiation



ALARA principle bases

- Linear dose-effect with no threshold (stochastic health effects)

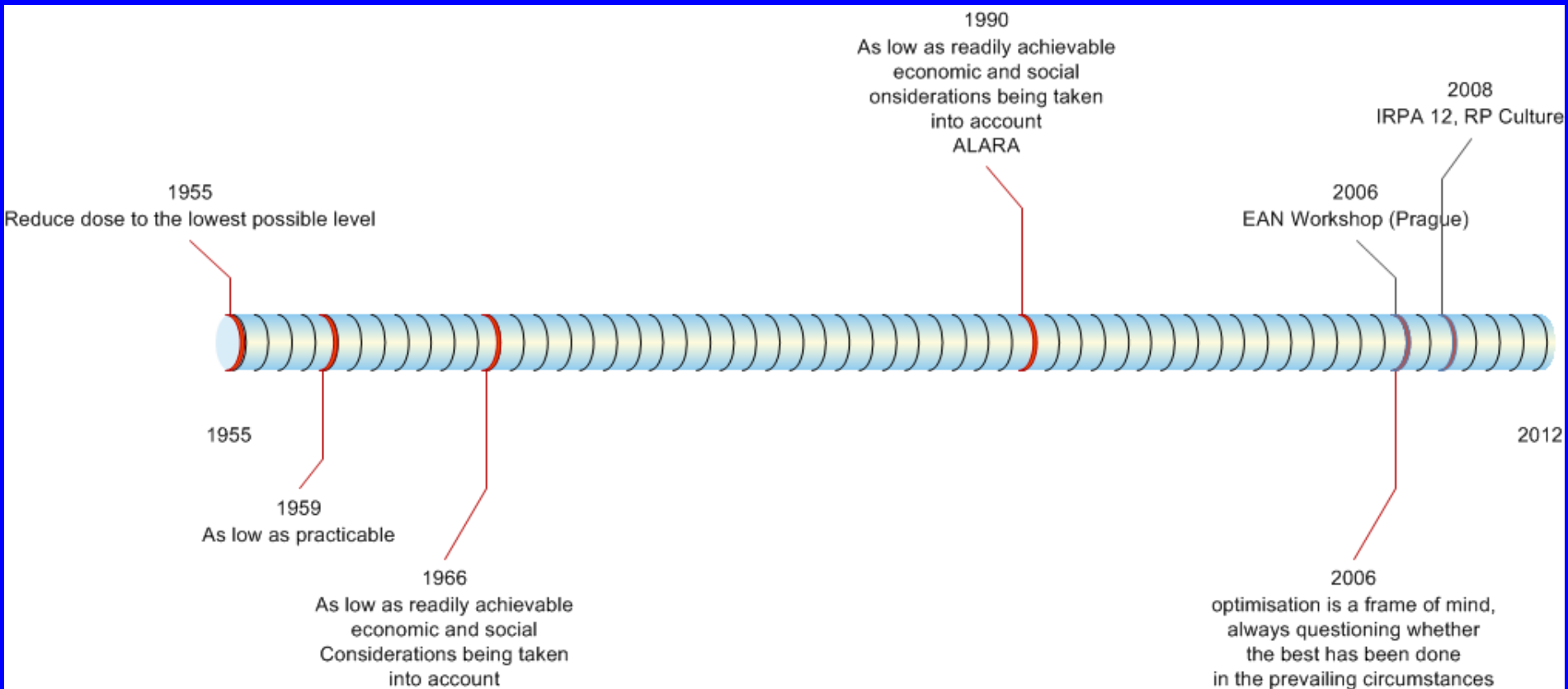


- Basic principles of radiation protection
 - Justification
 - Optimisation  ALARA
 - Dose limits



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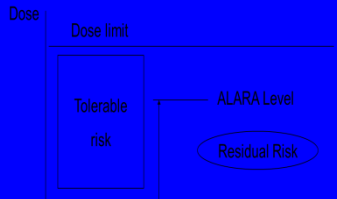
Optimization principle evolution timeline



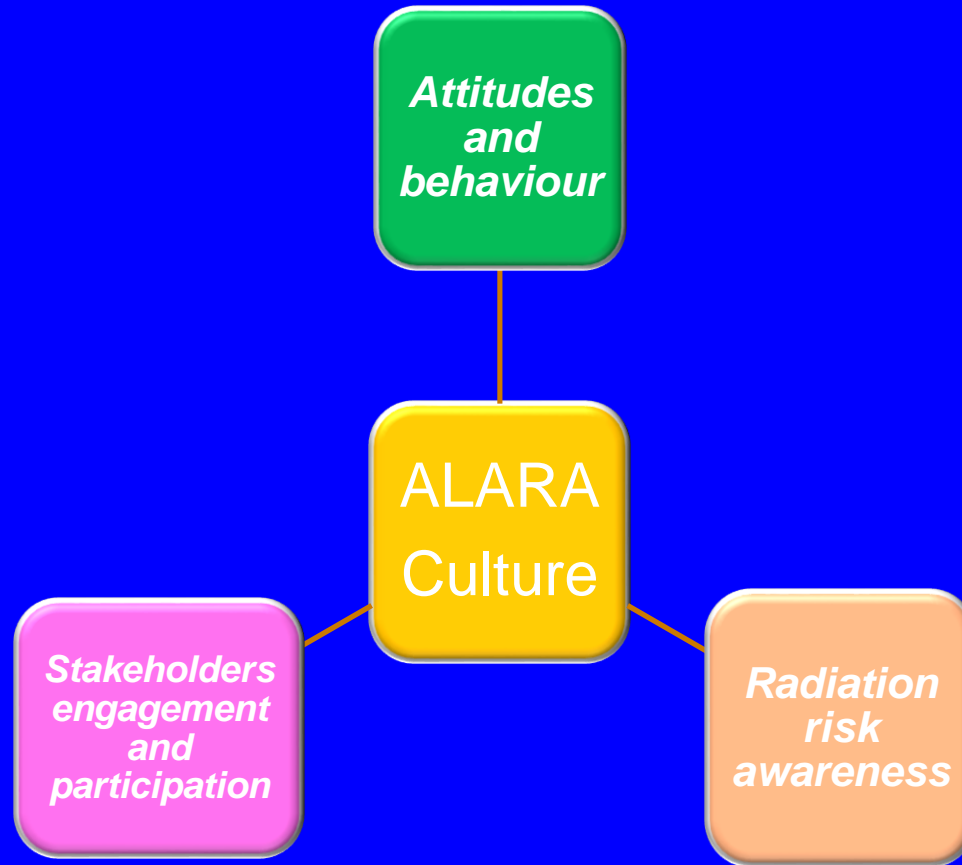


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ALARA is an obligation of means
and not an obligation of results

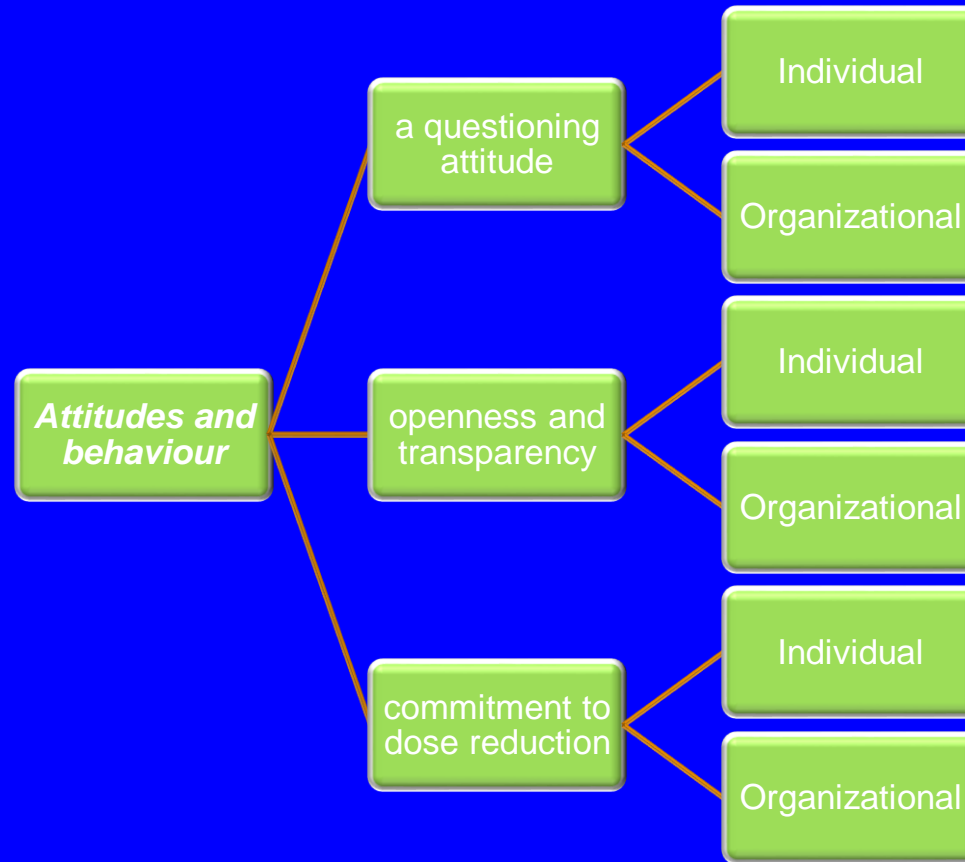


Synthesis of the main Elements of ALARA culture



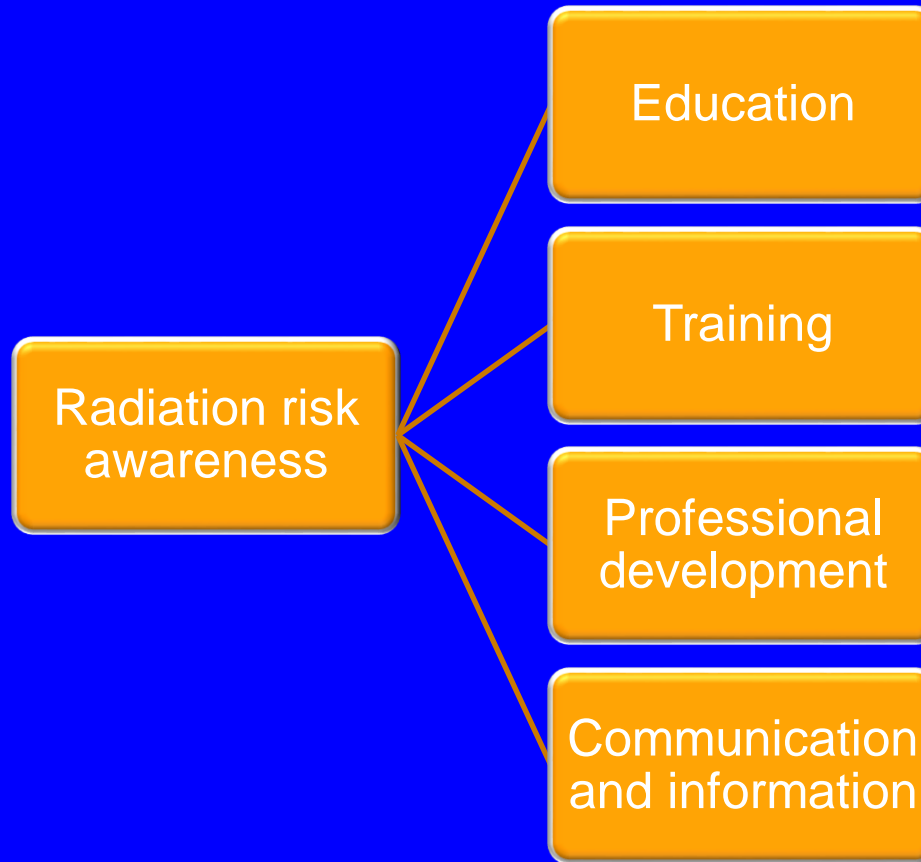


Attitudes and behaviours



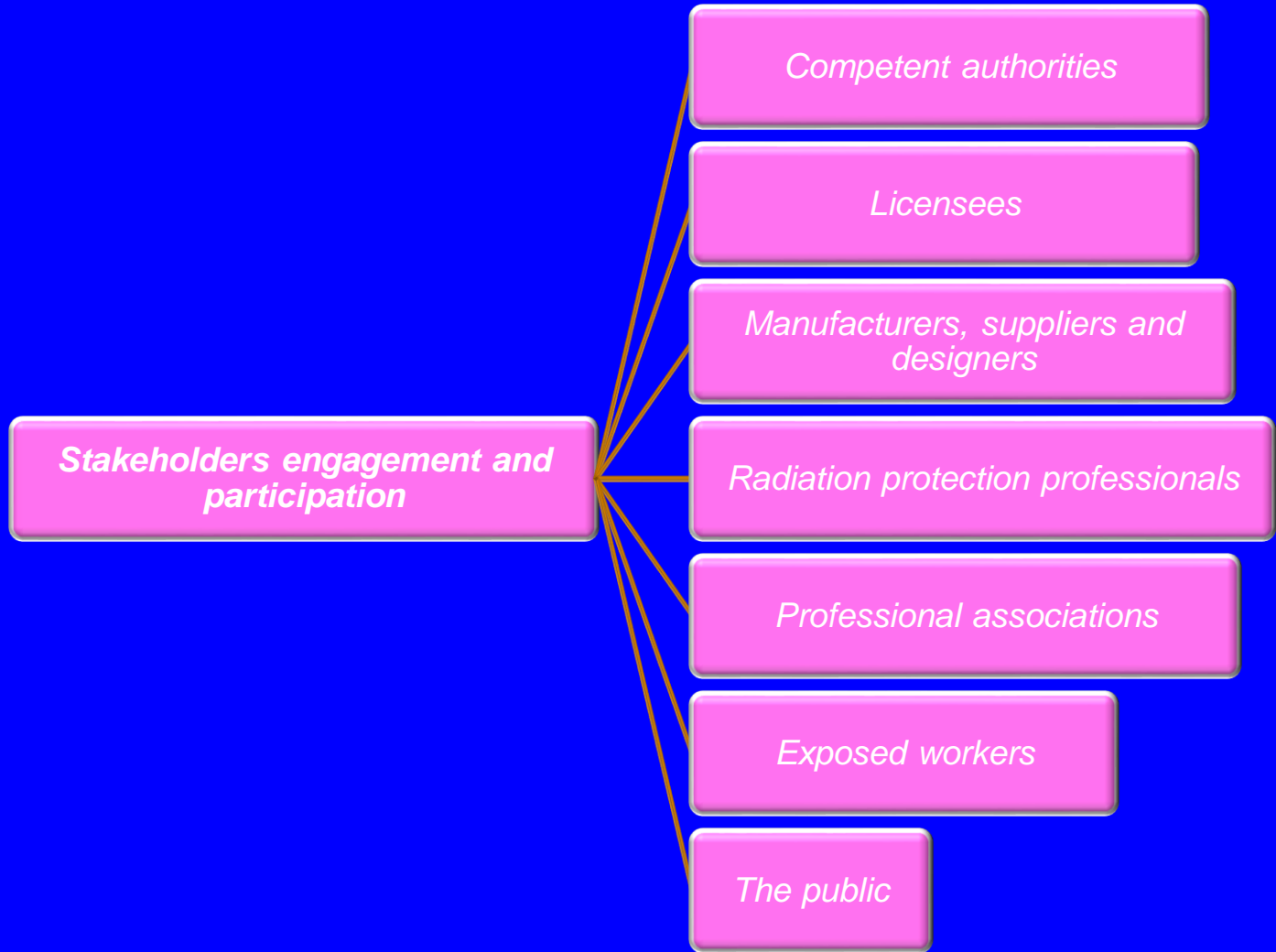


Radiation risk awareness



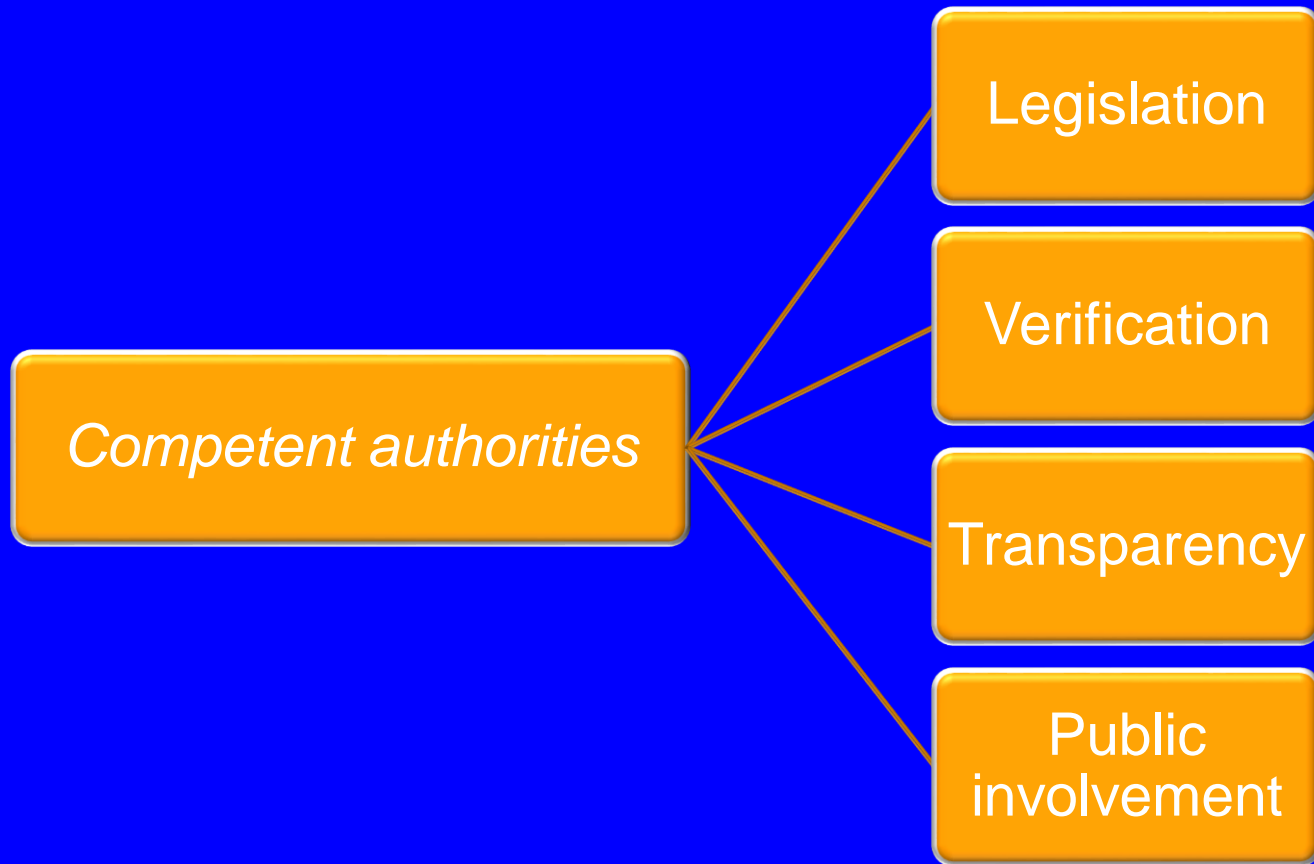


Stakeholders engagement and participation





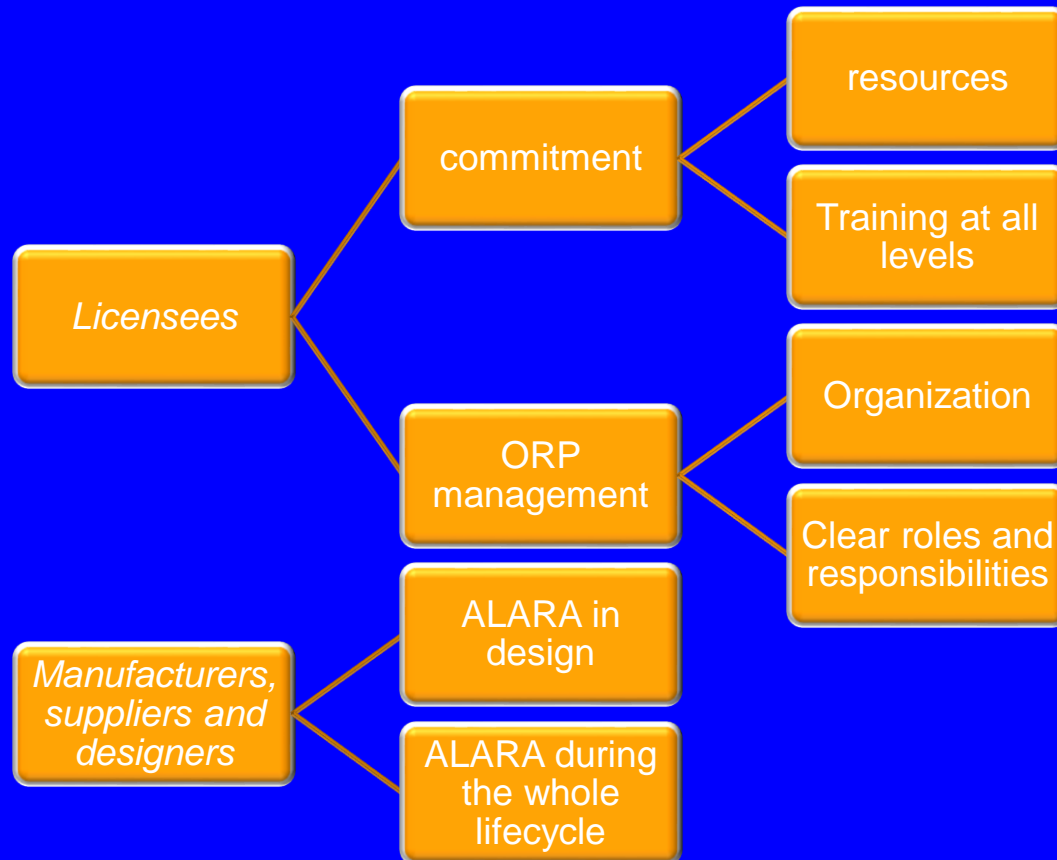
Competent authorities





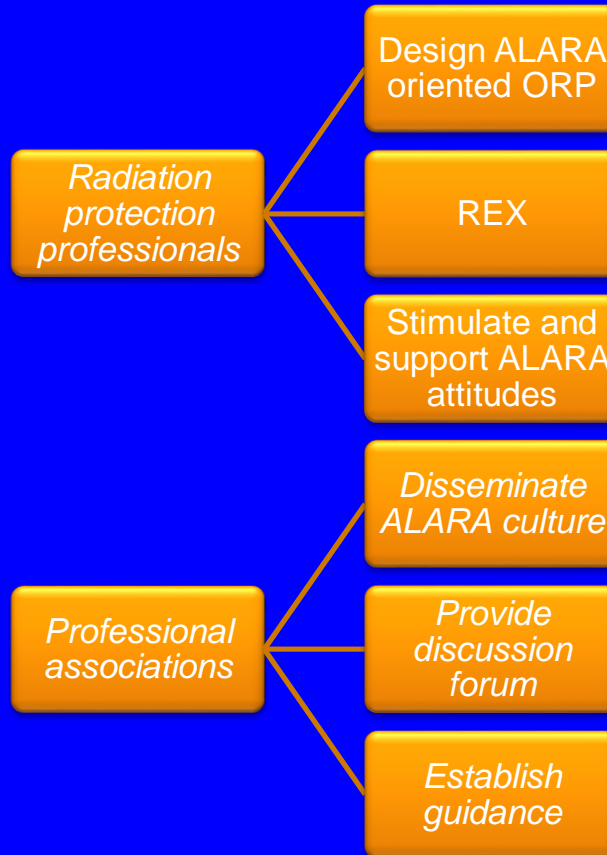
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Licensees and Manufacturers





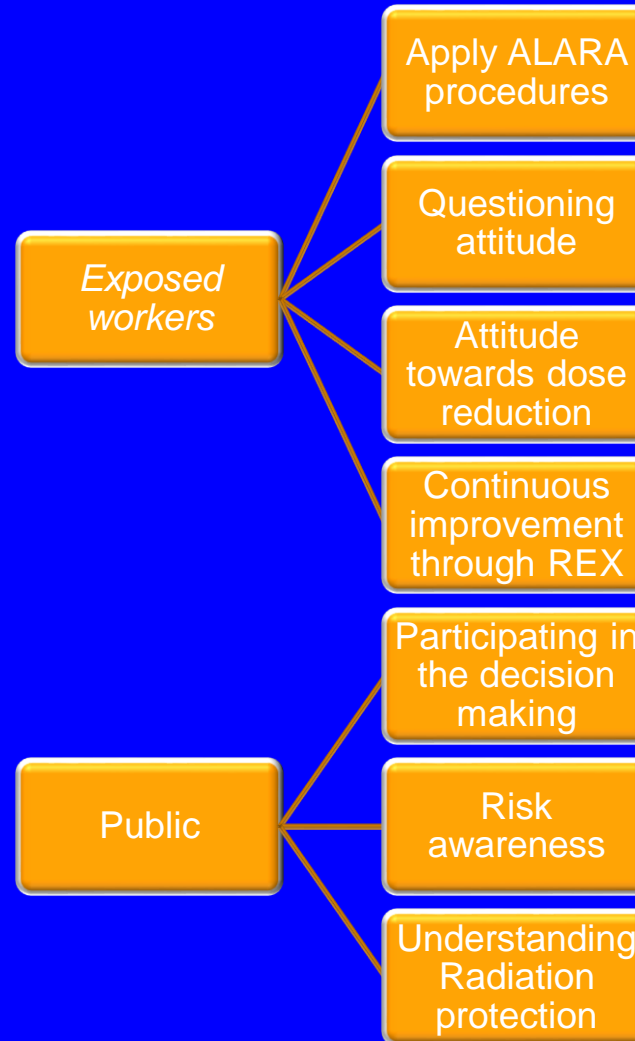
Radiation protection professionals





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Exposed workers Public



Challenges related to ALARA culture



- *nuclear industry*
 - Successful implementation
 - Ageing of the installations
 - Loss of experience
 - New builds, new technologies
- *NORM industry*
 - Increased risk awareness
 - New regulations IAEA and EURATOM
- *medical sector*
 - Increasing awareness
 - Efforts are still needed
 - Increase in uses of ionising radiation in medical field



- *existing exposure situations*
 - radon in dwellings
 - phosphogypsum landfills
 - Complex
 - → involvement of new stakeholders
 - → risk awareness
- *emergency exposure situations*
 - Complexity of emergency situations
 - optimisation in the planning stage of the response and protection strategies

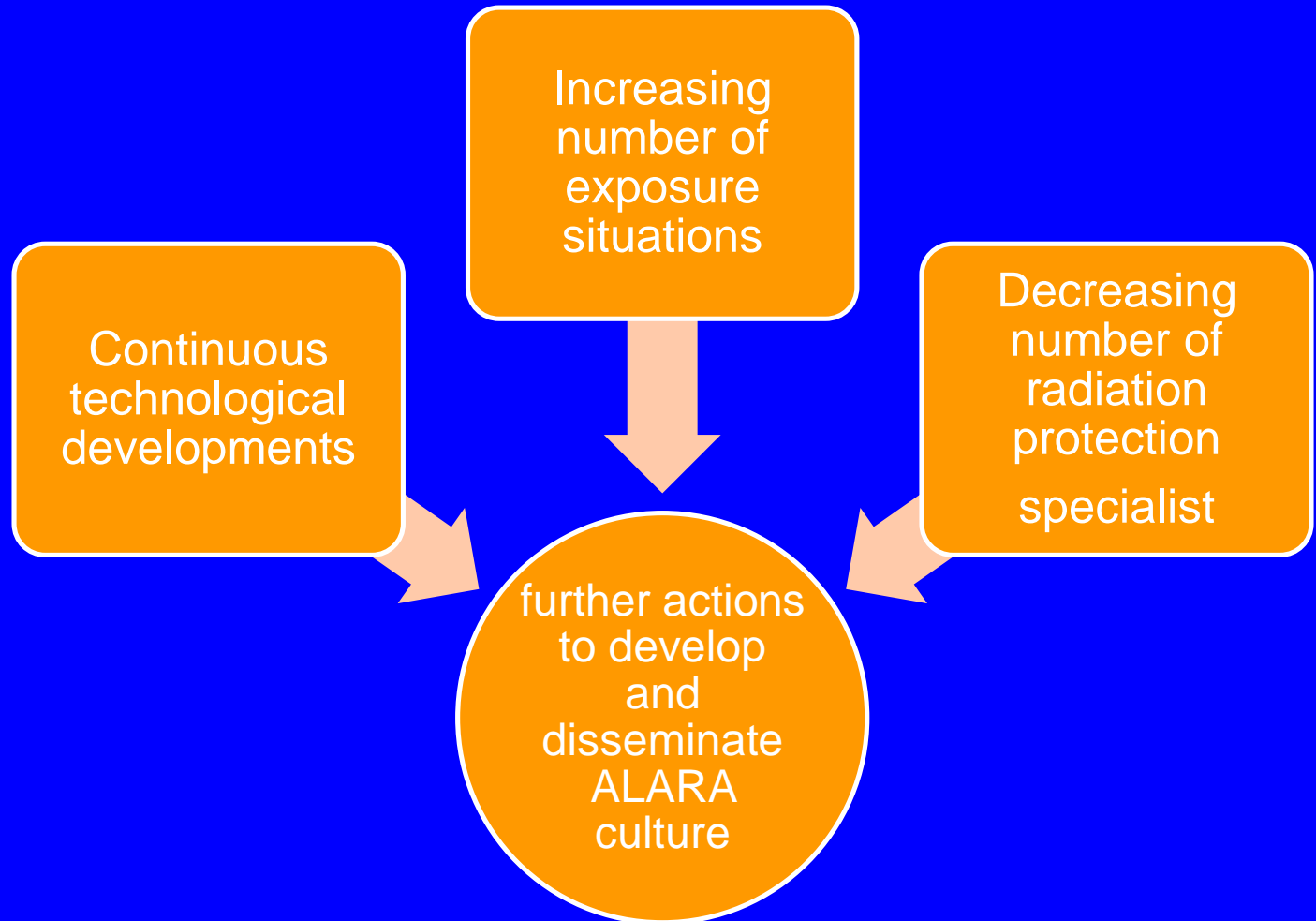
Role of the networks in the dissemination of ALARA culture



- ALARA networks
 - platform to exchange views and experience and to create relationships.
 - Contribution to the creation of knowledge
 - education and training
 - identifying and harmonising good practices.
- European ALARA Network (EAN)
- related ALARA networks,
 - European Medical ALARA Network (EMAN)
 - EAN NORM

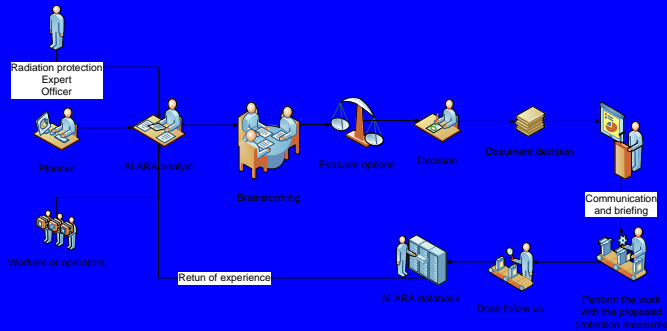


Conclusion





ALARA culture working group



TARGET AUDIENCE

- Competent authorities
- Professional associations
- Manufacturers, suppliers and designers
- Exposed workers
- Licensees
- Public
- Radiation protection professionals
- Patients

Basic concepts of radiation protection and their origins

Examples of ALARA implementation in practice

“Optimisation of radiation protection (ALARA): a practical guidebook

ALARA process
ALARA procedure

Elements supporting the approach

Actors and their responsibilities



**Thank you for your
Attention
Questions ?**