

Project: Ecosystem assessments – developing the international framework
Client: Environment Agency and European Union (EU)

The Challenge

The client organisations need to have robust methodologies in place for assessing the impact of radionuclides on 'non-human' species. There is a requirement for these to be developed within an accepted international framework in order to improve the nation states' capabilities for protection of the environment.



European Union (EU)



International Atomic Energy Agency (IAEA)



International Commission on Radiological Protection (ICRP)

The Solution

On behalf of the clients, WSC is participating in three international collaborative research programmes:

- EU ERICA - Environmental Risk from Ionising Contaminants: Assessment and Management. Aims at providing an integrated approach to scientific, managerial and societal issues concerned with the impact of ionising radiation on biota and ecosystems. An integrated risk assessment and management software tool is being produced.
- EMRAS - Environmental Modelling for Radiation Safety programme. This is a follow-up to work from previous international programmes in the field of radioecological modelling. The activities of the EMRAS Biota Working Group (BWG) focus on comparing and validating Member States' models for biota dose assessment that have been developed for the purposes of regulatory licensing and compliance monitoring.
- ICRP Task Group 69 – Dosimetry for reference animals and plants (RAPs). Aims at developing dose per unit concentration factors for use in assessments, following specification of reference geometries and life cycle stages by ICRP Committee 5. Comparison of current modelling approaches will lead to the selection of a preferred approach.

The Benefits

To current clients:

- Delivery of a robust methodology validated by international inter-comparison.
- Network of expertise developed at both EU and global levels, through formal membership of ICRP Task Group 69 as UK Corresponding Member.
- Advancing knowledge through the production of peer-reviewed scientific publications in the field of radioecological modelling.

To future clients:

- Because of our proven track record in this field, we are well placed to provide robust and cost-effective solutions to clients faced with determining the environmental impact of their radiological discharges.



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