

Embedding sustainability into decommissioning: participative systems mapping

There is growing interest in using systems thinking to address complex challenges. Managing the UK's nuclear legacy in a sustainable way presents a significant and complex challenge that requires assessment of socio-economic and environmental impacts in the management of risks and considerable lifetime costs. This brings significant challenges to decision-makers as they seek to identify long term solutions that reconcile competing interests.

The Environment Agency is collaborating with the Nuclear Decommissioning Authority and the Department for Energy Security and Net Zero on a project to demonstrate the value of systems thinking to stakeholders. The aim of the project is to develop an integrated systems map that will support decision making in decommissioning. The systems map is framed around the United Nations Sustainable Development Goals (SDGs).

The approach is designed to facilitate collaborative exploration of the whole decommissioning system, identify issues and how they interact. The nodes and connections on the system map model the decommissioning system and can be used to explore how decisions and changes may affect the system's contribution to the SDGs.