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## Multinational disposal solutions require alignment of policies, strategies and legislation and regulations

A key challenge that is often ignored in new nuclear planning is ensuring that there are credible safe, secure and sustainable paths towards implementation of final disposal facilities for the spent fuel and high-level waste produced. Especially for small or new nuclear power programmes, multinational repositories (MNR) can be a way forward. But national policies, strategies, legislation and regulations must be sufficiently aligned in the partner nations sharing a common disposal facility to allow for successful implementation. Currently, the situation in each of these areas vary significantly between countries. At the uppermost policy and legislation levels, some countries are specifically opposed to MNRs solutions, leading them to have total bans on import or export of radioactive wastes. Several European countries have regulations or legislation banning import of radioactive wastes but are silent on the issue of export. However, many countries are on record as being interested in pursuing a “dual track” approach which keeps open the options of a national disposal facility or participation in an MNR. Clearly, all such countries should ensure that their national policies and regulations would allow the latter.

But progress towards implementation of an MNR requires more than only declaration of policies. A national strategy and programme including specific activities devoted to furthering MNR initiatives is also required. Moreover, with the emergence of implementable MNR projects, alignments of national legislation and regulation will increase in importance. An MNR used by several countries should obviously have to satisfy the safety goals and regulations of the individual countries and these are currently not totally aligned. National nuclear regulatory bodies must clearly demonstrate their independence and hence are often resistant to acknowledging any overarching authority so that the harmonisation of regulations and legislation can prove challenging. Encouragingly, the increasing support of nuclear power, which could lead to many SMRs being deployed worldwide, has recently led to increased cooperation between national regulators harmonising reactor licensing. At the back end, however, the harmonisation of radioactive waste management regulations and legislation has been less emphasised.

For a multinational repository to function safely and securely, the user nations will ultimately also have to align numerous operational processes and engineering issues e.g., agreeing site selection criteria, unifying waste acceptance criteria, coordinating logistics and timing of transports, finding consensus on facility inspection, agreeing arrangements for transfer or sharing of future liabilities. To pursue the goal of high-level alignment of policies and strategies, ERDO aims to facilitate multinational discussions between government officials responsible for back-end policy and regulations in their home nations.

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