Round Table Debate for "HTGR - Small and Safe Nuclear Reactors"

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Abstract

The brief presentation is an overview of the history & past evolution and future prospects for High Temperature Gas Reactors (HTGR's). It show's the Roadmap and Mileposts of international HTGR technology development over the last six decades.

The period covered is from the initial research beginning in 1943 to the present day technological developments, predominantly in the U.K., France, Japan, U.S., Germany, Russia and more recently in China, South Africa and the Netherlands. Designs included different sizes, reactor and fuel types and plant configurations and and a variety of unique design features.

The driving reasons for the continuing interest worldwide in modular HTGR's are reviewed next, with a brief discussion on the key passive safety and operational features that offer a lot of promise for the future rejuvenation of nuclear power

The discussion then shifts to what are some of the key challenges facing the future development of HTGR's. The concluding section is an exploration of some of the key enablers that have to be acted upon by stakeholders to realize the full potential of HTGR's as part of the global energy mix to rising energy needs around the world.