

## **Molten Salt Reactor Research Programme Begins In Europe**

*Research & Development*

7 Sep (NucNet): A consortium of research institutes and universities working under the European Commission have begun a four-year research programme designed to demonstrate the safety benefits of molten salt reactors, MIT Technology Review reported. Called 'Safety Assessment of the Molten Salt Fast Reactor,' or Samofar, the effort could lead to the building of a prototype reactor in the early 2020s, the publication said. The organisations involved include the Technology University of Delft (TU Delft) in the Netherlands, France's National Centre for Scientific Research, and the Commission's Joint Research Centre in Brussels. Molten salt reactors are powered by a liquid fuel rather than solid fuel rods. They produce zero carbon and use a radioactive solution that blends nuclear fuel with a liquid salt, MIT Technology Review said. They can run on uranium, but are also ideally suited for thorium, an alternative nuclear fuel that is cleaner, safer, and more abundant than uranium. Molten salt reactors also offer inherent safety advantages. "Essentially, molten salt reactors could solve the two problems that have bedeviled the nuclear power industry: safety and waste," MIT Technology Review said. TU Delft said one of the key challenges of the Samofar project is to understand the heat transfer in molten salt reactors during a range of conditions, both nominal and accidental.