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On some safety and technology perspectives for the new nuclear reactor types

Nuclear Power Plants (NPP) passed so far through various stages of evolution. For the Small Modular Reactors (SMR), which are part of this complex process valuable insights might be provided a triple facet perspective based on considering this type of NPP as a:
I. New phase in the safety principles evolution, as for instance safety concepts or Defence in Depth
II. Thermodynamic and cybernetic machine, characterized by concepts of probability, risk, entropy
III. Dominant technology of the reactor core as part of a set of concurring enveloping technologies in the context of industry 4.0 phase, but with consideration of lessons learnt from natural reactors
The triple facet evaluation is performed for three cases of SMR's:
A. Water cooled
B. Gas cooled
C. Molten sault
The insights could be of interest for guiding strategic research and objectives for SMR types of NPP's

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