

# POLISH PROJECT OF RESEARCH HIGH TEMPERATURE GAS-COOLED REACTOR

*Tuesday, 14 November 2023 13:50 (20 minutes)*

Through a series of projects (HTR-PL, Gemini+, GOSPOSTRATEG-HTR) the National Centre for Nuclear Research (NCBJ), Świerk, Poland, got involved into the small-scale High Temperature Gas-cooled Reactor (HTGR) technology. The objective is to replace the existing fossil fueled plants working for chemical and petrochemical industry by the nuclear reactors in order to reduce CO2 emission in Poland.

The task of this talk will be first short introduction into the HTGR technology – its inherent safety properties, the basic construction components, and an ability of high temperature process heat production. Then, some presentation of the current stage of the work on the concept of the 30 MWth research reactor to be build at the NCBJ site which would also serve a demonstrator of HTGR-SMR technology for Polish industry will be given. The reactor's main technical specifications, its mission, its research, experimental, and utility objectives will be presented. Important steps of the reactor's basic design and preliminary safety report preparation performed in collaboration with Japan Atomic Energy Agency (an HTTR operator) will also be briefly presented. A breakthrough of such a project would be a new boost to the nuclear in Poland after the only Polish working research reactor "Maria" constructed nearly 50 years ago.

## Speaker Bio

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