Abstract ICRER 2022 – “Geostatistical mapping of two nuclear sites in Norway”

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Institutt for Energiteknikk (IFE) operated the two research nuclear reactors of Norway (located in Halden and Kjeller – Oslo region) until 2018 and 2019, when the decision was taken to close down the two facilities. Before starting decommissioning activities, it is important to document current levels of potential contaminants in the ground (both background levels with regard to radiation and all possible contaminated areas) that exist in IFE's two facility areas, including radioactive and non-radioactive substances according to Norwegian laws.

The methodology used for mapping both sites, as well as preliminary results will be presented. After desktop analyzes to identify expected contaminated areas (based on existing radiological data, historical records, aerial views at different dates, interviews of former employees…), several campaigns have been launched (advantageously combining in-situ measurements and sample collections) that include different types of analysis and sampling. The overall sampling strategy will be discussed, and the results will be presented in a user-friendly way using the software Kartotrak for geostatistical analyses.

Marie Bourgeaux-Goget started working in 2015 at IFE as a radiochemist. In addition to being project leader for mapping both Halden and Kjeller sites, she is in charge of developing research activities at the Environmental safety and radiation protection department.