Within the Nuclear Research Centre SCK•CEN (Belgium), several units, expert groups and services can be called upon for the execution of the MIND project.

The **Microbiology Unit,** within the Molecular and Cellular Biology Expert Group, provides the necessary scientific and technical skills in the field of general microbiology (e.g. targeted and large scale cultivation, oedometers for space restriction tests), molecular biology (e.g. customized genomic DNA extraction for host rock samples, gene and recombinant DNA cloning, (RT-)PCR for geomicrobiology relevant genes, DGGE) and bioinformatics (e.g. whole-genome sequence assembly, annotation and analysis, metagenomics pipeline).

For these purposes, the laboratory is equipped with basic microbiology tools, including aerobic and anaerobic incubators with illumination capacities, a photo-bioreactor, various microscopes (light, epifluorescence and electron), analysis tools (flow cytometry, microplate photometer, microplate fluorometer. In addition, a full range of equipment is available for DNA and RNA extraction and analysis including spectrophotometers, beat-beating equipment, Agilent 2100 Bioanalyzer, Applied Biosystems 3100 Genetic Analyzer, multiple Applied Biosystems 9700 96 well-plate PCR machines, Applied Biosystems 7300 Real-Time PCR System, gel electrophoresis (basic, pulsed-field and gradient) and micro-array platforms (comprising a full system for analysis of Affymetrix chips and a full system for glass slides with spotting, automatic hybridization and scanning).

Recently, a custom-made microbiology anaerobic glove box has been taken in operation, which has all the necessary features to allow proper anoxic microbiological research, including electro-polished surface finish to eliminate bacterial attachment, gas filters on every in- and outlet and a built-in UV-lamp to obtain a sterile and controlled atmosphere, an airlock chamber that allows vacuum sensitive materials or microorganisms to be introduced with limited perturbation of the anoxic conditions.

The **Waste & Disposal Expert Group** has a dedicated infrastructure available for the further, abiotic study of the chemical stability of waste forms and of the geochemistry and migration behaviour of radionuclides in clay. The infrastructure and equipment are regularly updated or upgraded, as the scientific approaches change with time, and programmes evolve The relevant experimental facilities are water uptake and ageing (due to thermal or radiation effects) of bituminized waste, corrosion tests on carbon steel and stainless steel, solubility and migration tests on radionuclides and characterization of clay as a host rock.

Beneath the terrain of SCK•CEN, the **HADES URL** is available. HADES is the only underground research laboratory in Belgium for experimental research on geological disposal for high-level and/or long-lived radioactive waste, and is situated at a depth of 225 meter, in the core of the Boom Clay formation. Numerous on-site experiments are carried out in HADES to assess the safety of a geological repository in poorly indurated clay. HADES is a licensed nuclear research facility, which offers scientists the unique opportunity to use a wide range of radioactive tracers and sources for their experiments. Large scale demonstration tests are performed in HADES to confirm the safety and feasibility in realistic "repository" conditions.

SCK•CEN is also operating different **irradiation facilities**, with gamma dose rates ranging from 1 Gy/h up to 50 kGy/h. The gamma sources are Co-60 or spent fuel elements. The gamma facilities cover most of the application areas dealing with ionising radiation. For dose rates below 1 Gy/h the bunker type irradiation facility CAL is used. Furthermore, the Laboratory for Nuclear Calibrations (LNK) of SCK•CEN is the designated metrology laboratory in Belgium performing secondary standard calibrations and irradiations with ionizing radiations following the requirements of the ISO 17025 quality assurance standard. LNK performs irradiations of a wide range of samples and dosimetry equipment with relatively low dose rates up to few Sv/h (photons) and few mSv/h (neutrons).

Moreover, SCK•CEN harbors a strong **Society and Policy Support Expert Group,** which provides policy and decision-making support related to the development, the use and the consequences of nuclear technologies. One of the focus points of this group is the awareness of society about safe nuclear waste disposal, and the dissemination of scientific output to the public in a correct and ethical manner.

Finally, the SCK•CEN **Academy for Nuclear Science and Technology** manages education and training activities, thereby providing guidance for young researchers, organising academic courses and customised training for professionals, offering policy support with regard to education and training matters, and taking care of critical-intellectual capacities for society, on an international scale.