



## Monitoring the Environmental Reference State

**Expected roduct : define a common baseline on the requirements for a reference state of the environment**

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- ❖ The goal of this topic is to get a reference state of the environment before the beginning the construction works for the geological repository.
- ❖ The reference state will also be useful for further monitoring during operations and even after, thus keeping a memory of the original environmental state.
- ❖ Depending on the sensitivities, different types and levels of requirements can be requested from a place to another.
- ❖ In order to avoid huge discrepancies and successive requests by comparing the situations among the countries, a common baseline of what is needed will be defined.
- ❖ It will then be the basis for further recommendations

- ❖ Since it is a new area of work, a detailed discussion is needed among the parties to define precisely the scope of the project, the way of doing it, and the detailed products.
- ❖ At first, a roadmap will be issued defining all of this. The idea would be to launch a technical project in 2014 to produce a reference book and relevant guidelines.
- ❖ Further technical and/or scientific developments to answer specific requirements may also be envisaged.

- ❖ The area to be observed and monitored
- ❖ The compartments of the biosphere that should be monitored
- ❖ The choice of the markers: biomarkers, biodiversity, quality of the environment...
- ❖ The way the selection of the monitoring systems for the repository environment will be made (scientific, and technical criteria, social requirements)
- ❖ The definition of actions that should be adopted in order to contribute to the preservation of the environment
- ❖ The evaluation of the perturbations that could be induced during the exploitation phase
- ❖ The links of the repository environment monitoring system with other environment observatories
- ❖ The necessity (or not) to have a reference area

- ❖ The involvement of the local associations (for example « preservation of the environment », fishing and hunting associations, farmers unions...)
- ❖ The level of information and consultation
- ❖ The commitment of the WMO in more general aspects of environmental monitoring and preservation
- ❖ The interfaces with other environmental scientific programs (national, international) e.g. local vs. global changes
- ❖ The potential conservation of samples from the biological and physical compartments of the environment
- ❖ Involvement of the WMO in health surveys, questionnaires (eating habits...), cancer registries, establishment of cohorts.

- ❖ Establish a representative **INITIAL STATE** of the site and its environment before Cigeo construction
- ❖ Establish environmental and socioeconomic criteria in order to facilitate the selection of the zones on which the surface facilities will be installed
- ❖ Contribute to the definition of the potential **ENVIRONMENTAL COMPENSATORY MEASURES**
- ❖ Prepare the future **ENVIRONMENTAL MONITORING PROGRAM** of the industrial site
- ❖ Identify and explain the origin of any disturbance of the environment or the presence of pollutants from the beginning of the construction