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## **Excavated soil reuse Development of a French management framework Specific or generic approach ?**

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After the revision of the Waste Framework Directive and its transposition in the French legal framework, it was necessary to define rules and methods to guide the sustainable reuse of soil ensuring human health and environmental protection. One provision of the European Directive sets that excavated soils not reused on site should be classified as waste and managed as such under national policies. To clarify these rules and provide stakeholders a common operational framework, the French Ministry for Environment asked BRGM and INERIS to draft a methodological guidance document related to the off-site reuse of excavated soil (for road construction, or development projects) and develop the tools necessary for implementation at local / regional levels. After a review of European countries practices, these methodological tools have been developed with the support of working groups composed of a wide range of stakeholders (professional associations, environmental protection association, planners, lawyers ...). They are now public available on the French Portal for Contaminated land management (<http://www.developpement-durable.gouv.fr/Guide-de-reutilisation-hors-site.html>)

### At the crossing of two management policies

The French policy on contaminated land focuses on two main concepts:

- Risk analysis and management rather than consideration of an intrinsic level of pollution ;
- Management based on the use of the site.

The presentation focuses on the difficulty to initiate a French management policy on excavated soils in agreement with the French policy on contaminated land (site specific approach) and the Waste policy based on a generic approach with guidelines values.

### Excavated soil off-site reuse methodology

The presentation will focus on the main principles of the methodology, especially the conditions of reuse.

After characterization of soils to be reused, the methodology provides two types of reuse on a receiver site :

- For road construction,
- As part of a development project (for which a building permit or an EIS is issued)

and if the three following criteria are respected:

- Criterion 1: soil quality of the receiving site is maintained;
- Criterion 2: water resources and ecosystems are preserved beneath the receiver site,
- Criterion 3: Excavated soils are compatible with the future use of the receiver site (only in the context of development projects).

### Tools developed as part of the french soil management framework

After presenting shortly the French Soil management framework, its aims and the general scheme, this second part of the presentation will focus on tools developed to support the implementation program. Two main tools were developed in order to support the methodology.

The first tool, HydroTex, concerns groundwater risk assessment. It was developed to verify that the off-site reuse of excavated soil will not affect the groundwater resource quality. The Hydrotex spreadsheet provides a specific result for each off-site receiver site and for each substance of concern (on single substance basis). The tool proposes harmonized entrance parameters for the groundwater modeling model. This assessment determines the maximum soil concentration for the relevant substance to protect the groundwater resource at the target endpoint.

To keep track of excavated soil quality, an information traceability system is implemented through the TERRASS database, an interactive tool for excavated soil banking, available online. These traceability measures allow monitoring the excavated soil volumes from a producer site to a receiver site. This receiver site can be a transit hub / cluster, a treatment center or directly a receiver site (for a development project or road construction). The database will also provide functioning indicators.