



Benchmarking of Excavated Soil Reuse Management in Europe - Development of a French management framework

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A detailed geological map of the area around Monte Regina di Pozzo. The map shows various geological units color-coded: pink for 'C.A.' (Cretaceous), green for 'C.M.' (Cretaceous-Miocene), and blue for 'C.T.' (Cretaceous-Tertiary). Topographic features include 'Monte Regina di Pozzo' (1313m), 'di Felice' (1195m), and 'Cassa Marittima'. The map also shows a network of roads and a railway line. A scale bar indicates distances up to 1000 meters.



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Benchmarking of Excavated Soil Reuse Management in Europe

> EU Waste Framework Directive

- ☐ Defines the legal Framework at EU level
- ☐ Implementation at a National Level: different options, different tools

> Challenge with Excavated Soil Reuse in France

> Demand of French Ministry of Environment to develop a national management framework with benefit from some experienced countries.

Benchmarking of Excavated Soil Reuse Management in Europe

> The Netherlands

- ☐ Application of soil
 - ☐ 60 million tons/year primary (clean) sand
 - ☐ 20 million tons/year reuse of lightly contaminated soil
- ☐ Turnover 200 million euro/year

> Flanders ☐ Belgium

- ☐ 20 million tons excavated soil per year from the excavated re-used soil:
 - ☐ 75% re-used as soil
 - ☐ 5% treated before re-use
 - ☐ 20% used in construction material

> France???

Benchmarking of Excavated Soil Reuse Management in Europe

- > **Work based on the ICCL questionnaire (including USA/Canada)**
- > **Assessment of the legal framework of European countries / regions**

Switzerland, Belgium/Flanders & Wallonia, the Netherlands, Finland, Spain /Basque Country, Germany, Italy and the United Kingdom

- ☐ Status of Excavated Soils : waste, not waste, polluted, not polluted
- ☐ Specific legislation or not for excavated soils : soil legislation, waste legislation
- ☐ The consideration of the receptor site and soil qualities
- ☐ the basic principles of the national/regional approach (e.g. typology of acceptable / sustainable reuses, site specific or generic, cost-benefits analysis).



Benchmarking of Excavated Soil Reuse Management in Europe

> **With some additional constraints: the French management policy on excavated soils needs to be in agreement :**

- ☐ with the national policy on contaminated land management (site specific approach, risk ☐ based)
- ☐ with the Waste management policy (generic approach with guidelines values, hazardous substances contents ☐ source approach)

> **taking into consideration:**

- ☐ Local implementation
- ☐ Liability issues

Benchmarking of Excavated Soil Reuse Management in Europe

> Finally Focus on 2 countries:

- ☐ The Netherlands with a generic approach (Values, Values and Values)
- ☐ The United Kingdom with a specific approach (as the French legal framework for contaminated land & sites management)

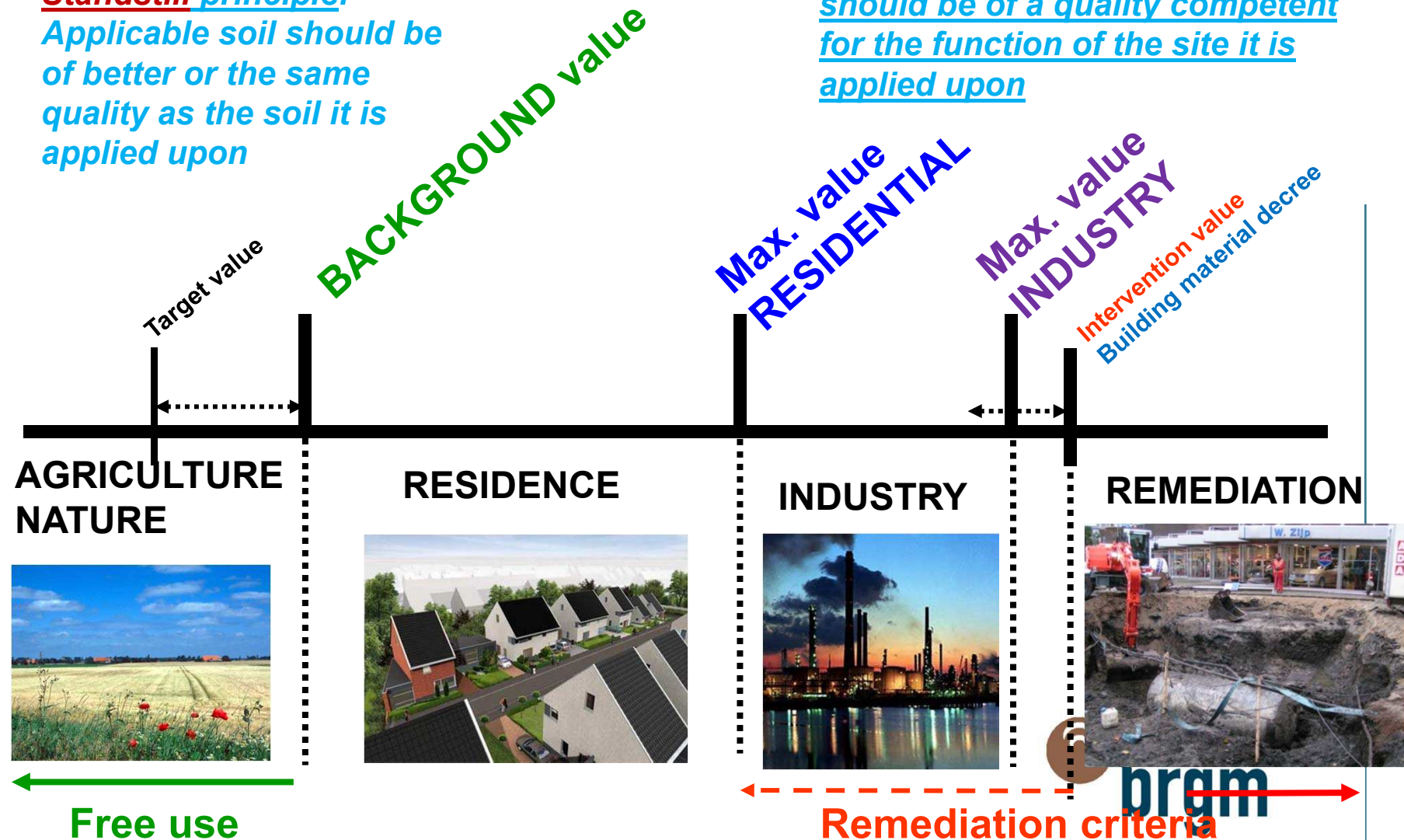


The Netherlands : a generic approach

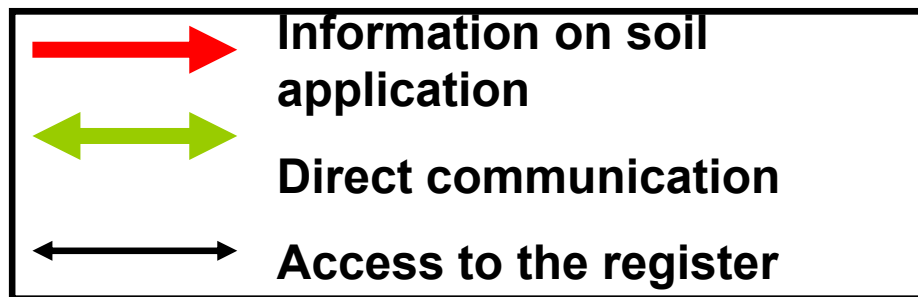
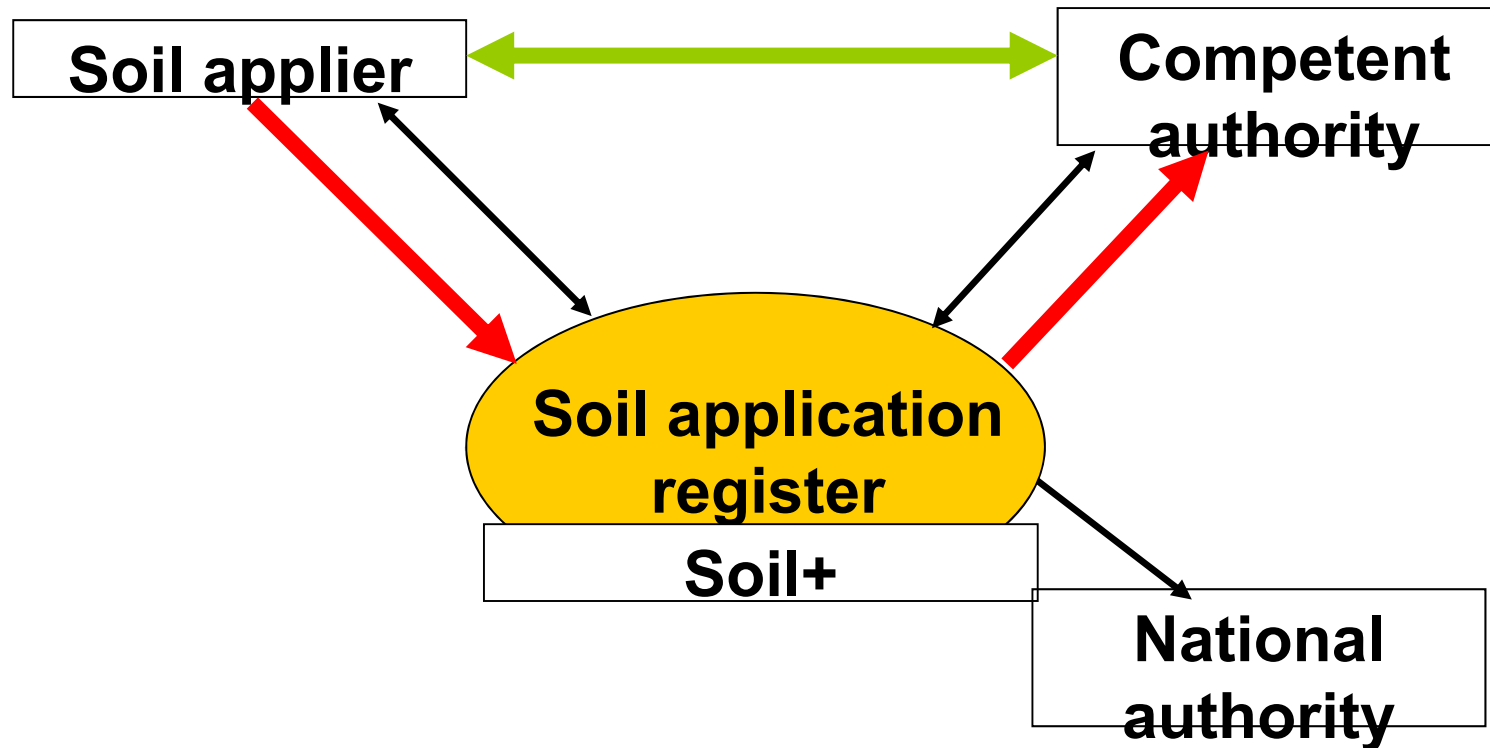
Standstill principle:

Applicable soil should be of better or the same quality as the soil it is applied upon

Fit for use principle: Applicable soil should be of a quality competent for the function of the site it is applied upon



The Netherlands : traceability



D3E / DG

The United Kingdom : a specific approach

> **Different methodologies (cf CoP v2):**

- ☐ Use on the site of Origin
- ☐ Direct transfer
- ☐ Cluster/Hub site (if any pre-treatment/ treatment needed)

> **Suitability for use Approach / reused soil quality**

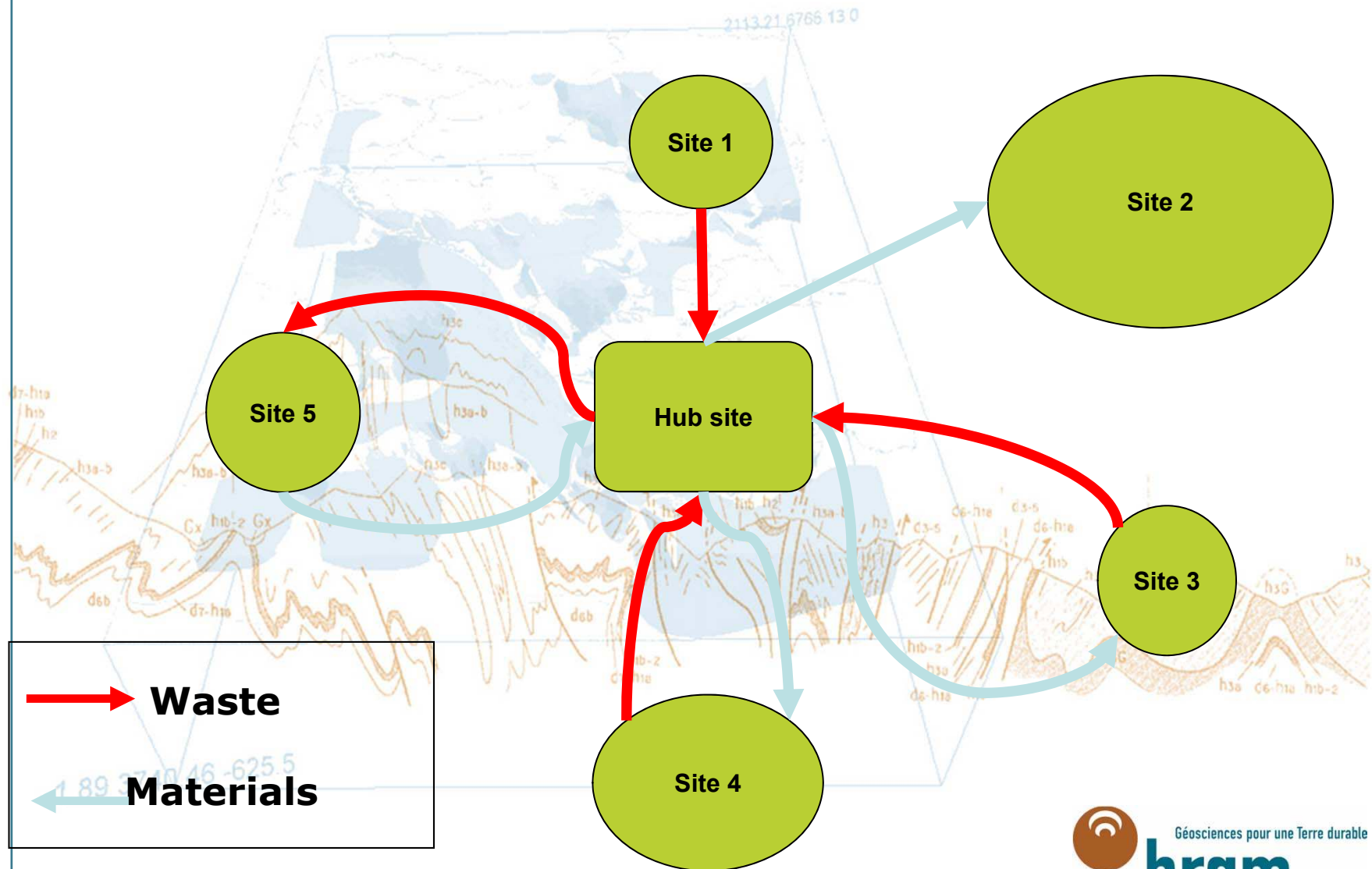
- ☐ Prescreening values (CLEA)
- ☐ Specific risk assesment if no guideline values or overtaking CLEA values
- ☐ Remedial Target Methodology :hydrogeological risk assesment for land contamination

> **Area approach / materials management plan (report)**

> **Linkage with land planning / land development (building permit)**

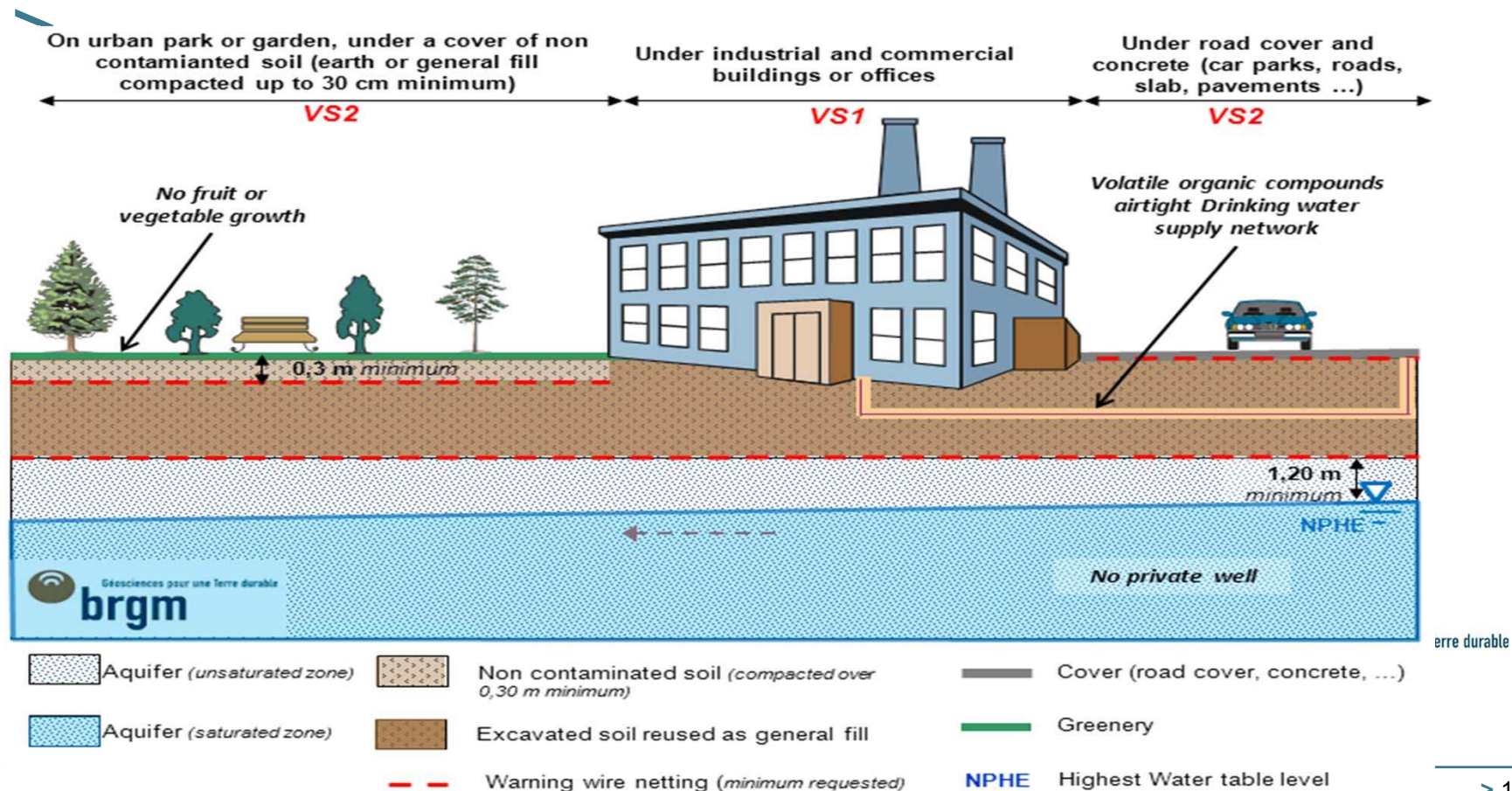


Version 1: Cluster sites



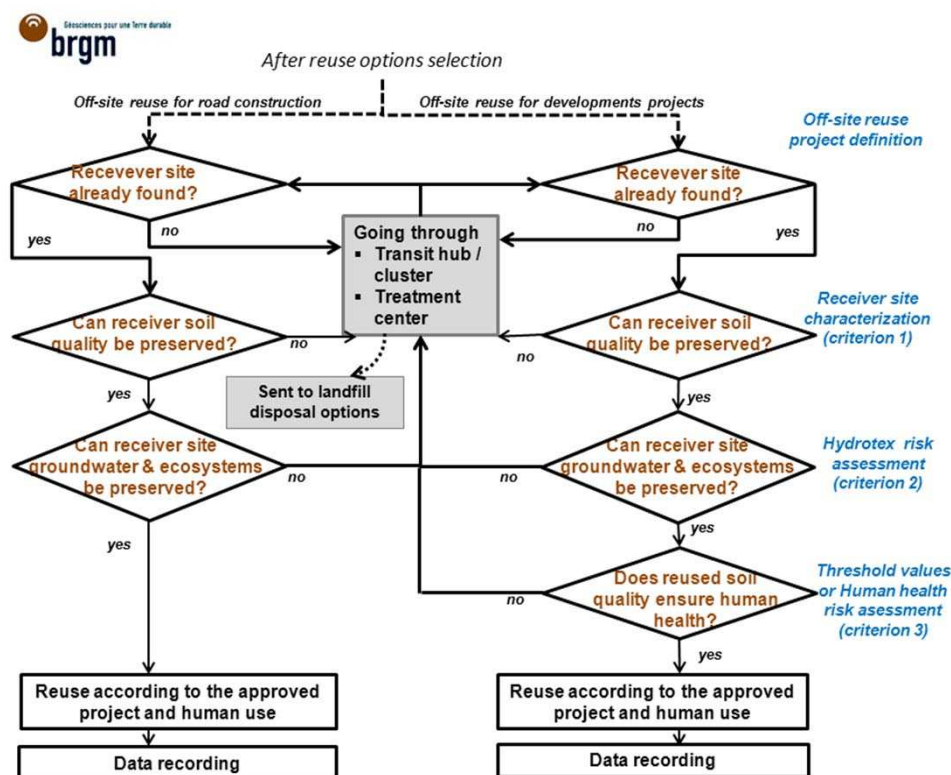
French management Framework (2012)

- > Excavated soils can be reused on a receiver sites:
 - ☐ For road construction,
 - ☐ As part of a development project (for which a building permit or an EIS is issued and under conditions)



French management Framework

> Reuse if the three following criteria are respected:



- ☐ Criterion 1: **STAND STILL PRINCIPLE** (soil quality of the receiving site is maintained)
- ☐ Criterion 2: water resources and ecosystems are preserved beneath the receiver site, **SPECIFIC hydrogeological risk assessment : HYDROTEX**
- ☐ Criterion 3: Excavated soils are compatible with the future use of the receiver site (only in the context of development projects): **Threshold values for the most common pollutant otherwise SPECIFIC RISK ASSESSMENT**

French management Framework

> **Guidance for the reuse of excavated soils in off-site locations (March 2012) - testing for one year**

- ☐ Semi-generic Values for assessing potential risks of reuse
- ☐ For Groundwater resources (if needed) and Soil

> **Development of an information traceability system (TERRASS) in order to :**

- ☐ Ensure materials traceability from the excavation site to the receiver site,
- ☐ Bring information on the status, location and quality of stocks,
- ☐ Connect soil producers / site owners and users of excavated soil,
- ☐ Enable the competent authorities to make their regulatory controls
- ☐ Produce useful indicators for monitoring the implementation.

> **Further developments**

- ☐ Methodology for construction materials reuse
- ☐ Regulatory obligations



> **Guidance on the French Environment Ministry web site :**
<http://www.developpement-durable.gouv.fr/Guide-de-reutilisation-hors-site.html>

> **HydroTex**
http://www.developpement-durable.gouv.fr/IMG/pdf/Guide_hydotex.pdf

> **TERRASS**
<http://terrass.brgm.fr>

Thank you for your attention

