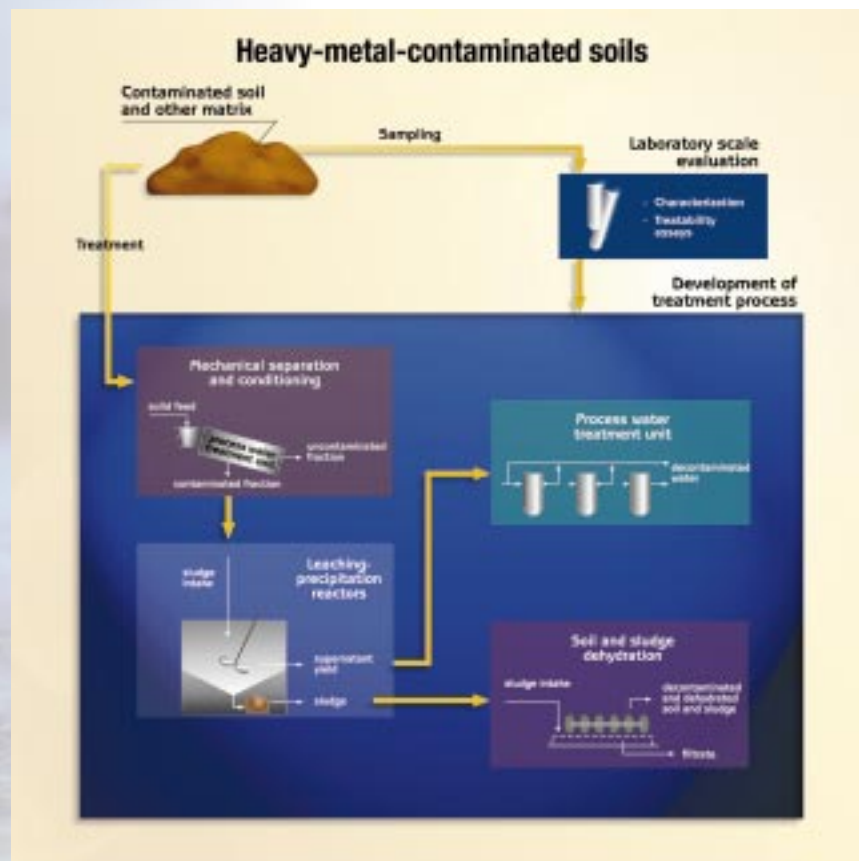


# Pilot Unit Technological Demonstration for Processing Materials Contaminated with Heavy Metals

The development by CRIQ of a pilot unit for processing materials contaminated with heavy metals meets a growing need for effective technologies to allow soil recovery and decontamination of a range of substances. The target is to reduce contamination of treated soils to a level compatible with the criteria set out in government soil protection and land recovery policies (Politique de protection des sols et de réhabilitation des terrains contaminés). With regard to hazardous, leachable materials, this newly developed processing technology will permit their reclassification as special waste.

The processing procedure is currently at the demonstration stage and will be optimized through the work being carried out in the pilot unit. Before being accepted for processing, all contaminated materials must undergo treatability tests. Following successful completion of such tests, processing and disposal of the materials can be undertaken.



**A solution for:**

- Soils that have been contaminated with heavy metals, such as lead, zinc, cadmium, copper, chrome (backfill, storage yards, sediments)
- Leachable hazardous materials (foundry sand, blasting sand, waste lime and incinerator ash, sludge, dust extraction waste).

**Pilot unit characteristics:**

- Total concrete surface: 1000 sq m
- Wet screening chain with trommel screen, two twin-tray vibrating screens and a hydrocyclone
- Storage bins for contaminated materials (40 tonnes)
- Decontaminated materials shipping area (200 sq m)
- Heated building (200 sq m)
- Four 8 cu m multipurpose reactors (extraction, settling, precipitation)
- Three underground liquid storage and transfer tanks (10 cu m each)
- Metallic sludge and material dehydrating unit
- Pre-disposal waste water polishing unit
- Processing capacity: up to 40 tonnes daily of contaminated soils and 20 tonnes daily of leachable, hazardous materials



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