Landfill mining: What is the potential in Suisse Romande?

**Introduction**

Landfill mining is the concept of seeing the current landfills not as final destinations for untreated materials but as a valuable source of materials. This brings the following possibilities:

- Add a new value to materials that had already lost it, and save on raw extraction.
- Sanitize old polluted places and thus reduce the hazard of water pollution.
- Old waste deposits might be a critical way to add an extra resource stream to meet the future needs.

We have chosen the DCB of Chatillon (FR) for a detailed study of potential. The site is in operation since 1970 and is a typical example of a historical landfill site with a large proportion of虻ageable slag piles of the BEF (BEF) of Fribourg. This compartment has, a different proportion of bottom ash, plastics, metals and other residual materials than the DCB Chatillon, (bottom right) the current operational border of the landfill.

For the purposes of this study we focus on the following 3 types of landfills:

- **Bioactive controlled landfills (DCB):** These landfills contain the ashes from incineration, as well as other hazardous materials, including asbestos, and highly polluted soils.
- **Inert material controlled landfills (DCM):** This landfills contain the non-recycled fraction of construction waste, including asbestos.
- **Polluted Sites (PS):** These sites are defined in law as any site that has the possibility to pollute the environment, which can be old landfills, industrial sites and accidents sites. In this study we conpore on polluted sites which are old landfills of municipal solid wastes and other materials.

There are also the Stabilized Material Controlled Landfills (ISDS) these are not within the scope of this project.

**Types of landfills in Switzerland**

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**Conclusion**

For landfilling in Romande we can reach the following general conclusions:

- For a large portion of polluted sites, the current market prices of construction aggregates are not in line with the current market prices of non-hazardous, non-polluted aggregates. This market gap creates an opportunity to recover valuable materials from these sites.
- For the majority of DCB and DCM landfills, there is a significant potential for economic recovery of materials. The recovery of metals and other valuable materials from these sites can significantly reduce the environmental impact of landfilling.
- For PS, the economic potential is lower due to the lower value of materials and the higher costs of recovering these materials. However, there is still some potential for economic recovery of materials from PS.

**References cited in this poster**