Reuse of sediments – Policy framework in Flanders

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Introduction: The OVAM ("Public Waste Agency of Flanders") is one of the partners in the Interreg project Sullied Sediments. An objective of this European project is to develop knowledge and tools to support water managers in their decision-making on the management of contaminated sediments.
The Flemish Region has harmonised the legal framework with regard to the reuse of sediments by integrating the reuse of sediments into the existing legal framework for the reuse of soil. The Flemish approach is described.
Methods: The evaluation of an intended reuse of sediment requires an assessment of its chemical and physical qualities.
The chemical assessment needs to be based on representative sampling and analysis results. Key to a representative analysis result is the determination of a sampling and analysis strategy. Both sample locations and the substances that need to be analysed can be determined on a statistical basis and/or can be based on historical research. Both identifying potential (historical) sources of sediment pollution and determining their potential contamination profile is a complex process. Problematic factors can be the availability of data with regard to potential sources (permits, aerial photography, environmental reporting, …), the (often poorly documented) knowledge with regard to historical production processes, the unpredictable behaviour of contaminants in the historical (potentially modified) flow and course of the waterway and external factors such as flooding, historical dredging, covering of (parts of) waterways and other physical interventions in waterways. The bulk of this data will be available with and will need to be disclosed by public authorities. This disclosure can take the form of or can be part of a knowledge supporting system (public database).

Physical assessment leaves less margin for harmonisation as it will need to be based on the intended use of the sediment. The need for physical treatment (dewatering, stabilisation, …) will therefore still be determined on a case by case basis. Since this assessment is a pure engineering matter, this should not have an impact on the legal security of the approach or the policy framework.

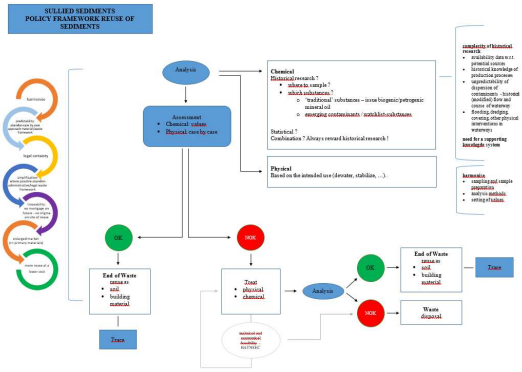

Fig. 1: Policy framework for reuse of sediments.

Additionally the Flemish legislation foresees an economical evaluation as well. The treatment and the valorization aspects are evaluated in accordance with a code of good practice .The potential for valorization is assessed on the basis of the successive aspects as given below. Subsequently, the cost of using this potential is compared with the cost of using other materials as a basis.

1. Theoretical potential: maximum amount of sediment that can be reused based on chemical quality;
2. Technical potential: part of the theoretical potential that can be reused within technical and chemical criteria;
3. Economical potential: part of the technical potential that can be reused in an economical viable way;
4. Implementation potential: part of the economical potential that can be reused under specific social and political conditions;
5. Sustainable implementation potential: part of the implementation potential that can be developed within the preconditions of sustainable development.

Discussion: The integration of sediment reuse in the soil legislation resulted in a harmonisation of the evaluation of the intended reuse of sediment and soils. This end-of waste framework has led to a higher predictability for the sector and an increased legal certainty.
By abandoning the framework of the waste legislation, reuse has also been simplified from an administrative point of view.
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