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BIOREFINE

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BioRefine – Conference about dredge spoil in Wallonia

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1 Participants

Around 100 stakeholders attended the conference on dredging spoil, amongst which Cédric Tarayre from Gembloux Agro-Bio Tech. The speakers were from the "Fédération du Dragage", the "Direction Générale Opérationnelle de la Mobilité et des Voies Hydrauliques de la Région Wallonne", the firm "ECOTERRES", the firm "ENVISAN" and the "Centre Terre et Pierre".

2 Main Points

This conference was attended because dredge spoil is a waste considered as industrial. This subject is included in the topics of the BioRefine Project.

The valorization of dredge spoil is influenced by the European and Walloon Rights. This waste got importance when water transportation has been found to be the least energy-consuming means of transport. The problematic of dredging is included in the official report about transport policies. The European transport network is composed of 9 main corridors across the European Union. Those corridors include different means of transport (motorways, waterways, railway...) following a same way. The Walloon Public Service has undertaken different projects focussed on waterways. This activity is due to the fact that about 80% of the European water transportation crosses Belgium. Today, dredging is absolutely necessary because the rivers have not been dredged on a period of 15 years. This is due to legislation. Before 1995, dredge spoil could be spread on soils without any control. Then, the Decree of the Walloon Government of the 30th of November 1995 started being applied, and dredging was prohibited in Wallonia because no treatment technique was available. In 2001, a storage plant was built. In 2006, an invitation to tender has been sent to find partners able to propose treatments. It has been established that about 1.200.000 m³ of dredge spoil will be extracted from the Walloon Rivers over the period 2010-2014. About 1/3 of the total volume has been estimated to belong to the class A against 2/3 belonging to the class B.

Dredge spoil contains nutrients, minerals, heavy metals, organic components, etc. The waste is considered as an industrial waste and be classified into 2 categories. The class A is composed of the waste considered as not polluted, while the class B is composed of the polluted fraction. In some cases, sludge can be considered as clean without any analysis, according to the Walloon Right. Class A – dredge spoil is normally stored before being put in landfills or valorized. Class B – dredge spoil must be processed through a pre-treatment prior to a treatment of remediation. After that cleaning step, a fraction is sent to landfills and another fraction is valorized. A dehydration step is always necessary to reduce the volume of waste to be transported.

Some problems have been highlighted in legislation. The DWG of the 10/07/1997 has set a Catalogue of Wastes. This document considers sludge and dredge spoil according to their dangerous effect and not their pollution. One more problem is that in some cases, dredge spoil is considered as not polluted automatically. The decree about soils of 2008 shows incoherence too. This decree proposes a classification without any analysis. A proposal of decree has been written to solve those problems. This proposal is based on one principle: the future use of the waste determines the legal document to be applied (Decree "Soils" of 2008 or Decree 27/6/1996).

At present, dredge spoil is usually used as an embankment. It can also be used in the building of sea walls. New techniques of valorization have been established: building of motorways, preparation of concrete, bricks, etc. In many cases, dredge spoil must be remediated before being used. Pollutants tend to accumulate on the finest particles. The Centre “Terre & Pierre” in Tournai has established a treatment technique of decontamination which consists of 20 steps. However, no technique of nutrient recovery has been found.

A final aspect to be taken into account is the transportation of wastes. This field depends on the European Directive 2008/98 and the Rule 1013/2006. The transportation of dredge spoil is excluded from the Directive except if the waste is not considered as dangerous. Both documents are applied to all wastes. They are very important as regards the BioRefine Project for Work Package 5.