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The DIRECT-MAT web database – A source of knowledge in road recycling

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Abstract

This paper describes the DIRECT-MAT web database which gathers European knowledge and practices about the demolition and road-recycling or safe disposal of old road materials. This database has been developed within a three-year coordination and support action under the EC 7th Framework program "Sustainable Surface Transport" for the purpose of supporting the daily work of practitioners, researchers and standardization bodies working in the field of road infrastructures.

The database addresses unbound, hydraulically bound and asphalt road materials. It also addresses other materials related to road use but not commonly recycled into road construction. These include tire shreds, sediment from ditches, road reinforcement materials and industrial by-products as long as they come from the demolition of a road into which they were recycled a first time. The database provides on-line access to Best Practice Guides, practical application case studies and international literature reviews elaborated from the review of national documents.

There are three different ways for searching the database: 1) Via specific documents – Literature reviews, Case study reports and Best Practice Guides – for each material type; 2) Via quick or advanced search for specific terms; 3) Via a map where case studies are geo-tagged.

The DIRECT-MAT database has been developed by some fifty experts from fifteen European countries. This means that national documents, working sites data and research results have now become easily available to road authorities, CEN technical committees and researchers from other countries. This share of national knowledge and practices is expected to boost recycling, thus DIRECT-MAT will contribute to reducing waste disposal associated with roads. Furthermore, the DIRECT-MAT web database is expected to serve as a reference tool for recording and sharing working site data on the demolition and recycling of road materials throughout Europe.

Keywords: recycling ; road ; demolition ; maintenance ; database ; unbound ; hydraulically bound ; asphalt ; tyre sheds ; by-products ……

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