PROJECT PROFILE

Title | Durable Transport Infrastructure in the Atlantic Area (DURATINET)

Contractor | TCD

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Start date | Jan-09
End date | Dec-13

Status | On-going

Type of project | EC project

Cost | € 2.48million: funded under the Atlantic Area Programme

Project reference | Project No 2008-1/049

Description | Much of the transport infrastructure along the Atlantic coast is more than 30 years old and is rapidly deteriorating due to the extreme aggressiveness of the marine environment. The accelerating deterioration of the infrastructure is most relevant to coastal infrastructure (ports and other structures directly associated with marine transportation) where direct contact with seawater exists. However, the use of de-icing salts for winter maintenance is also a contributory factor particularly for highway bridges. The costs involved with subsequent repairs consume a very high proportion of the annual maintenance budgets and, hence, owners, managers, and authorities require the use of maintenance methodologies for prioritisation of repairs. The main goal of the project is to create the network of excellence called DURATI-NET to facilitate an efficient exchange and transfer of knowledge, to promote the durability, safety, and sustainability of transport infrastructure in the Atlantic Area, making these regions more attractive to live in, to work and for competitive business. The 15 partners in the project are from Spain, France, Ireland, Portugal, and UK.

Objectives | The objectives of the project are as follows:
1. To produce guidelines on the optimisation of the maintenance of reinforced concrete and steel infrastructure and repair of materials.
2. To create new competences at the level of infrastructure maintenance
3. To identify new expertise on applied research concerning quality control needs
4. To develop a web platform with areas open to the technical and scientific community to improve the expertise and knowledge about service life prediction of material performance and the ageing of repair materials.
5. To promote the development and use of “green and smart” structural materials and repair products.

Benefits | The project provides the opportunity to be involved in a network of excellence dealing with the durability of transport infrastructure. This involvement will ensure that the deliverables produced by the duratinet project are directly relevant and useful to the NRA.

Outputs | Series of information leaflets providing details of deterioration mechanisms, defects and repair options for concrete structures; series of procedures on the application of different repair and rehabilitation methods; web-based tool for the selection of appropriate repair methods; guidelines on the optimisation of the maintenance of reinforced concrete and steel infrastructure and repair of materials: