



## AMARCRETE

### RECYCLING SHIP MOORING LINES FOR USE IN THE CONCRETE INDUSTRY

The aim of the AMARCRETE project is to develop the economic potential of scrapped mooring lines, which are currently not recycled, for use in the concrete industry. Mooring or dock lines are used by ships and ports to secure vessels at a quayside or fixed point. They comprise a woven sheath around a core made up of several strands of noble materials, such as Kevlar®, hence the interest in recycling them.

The port authority of the Grand Port Maritime (GPM) of Nantes Saint-Nazaire noted that a significant quantity of mooring lines was being scrapped.

The research involves determining whether fibres from recycled mooring lines could feasibly be incorporated into concrete by removing existing constraints, such as identifying sources, industrialising the line-cutting process and developing fibre-reinforced concrete. The effects of these fibres on different types of concrete both liquid and set will be studied. The AMARCRETE project will thus establish the types of concrete and the potential applications for which the fibres represent a significant mechanical advantage over traditional, polymer fibres. The mooring line fibres re-used in concrete will then be tested on an industrial scale for one of the applications identified.

At the end of the project, a technical and economic impact assessment of this industrial solution will be produced for the launch of a new mooring line reprocessing industry and a new commercial product.

#### Partners

##### Companies

Chryso, Sermaises, Malestroit [[Project Developer](#)]  
BEXCO, Hamme, Belgique  
Cedre, Brest  
CERIB, Centre d'Études et de Recherches de l'Industrie du Béton, Epéron  
Les Recycleurs Bretons, Guipavas

##### Other partner

Port Nantes Saint-Nazaire, Donges/Saint Nazaire

#### Funder

Ademe

#### Labelisation

01/06/2018

#### Overall budget

194 k€