



Project WOOLRES

Wool Recycle Eco System

Coordinator

Tecnomeccanica Biellese Srl

Partners

Erxa Srl
Politecnico di Torino

Project objectives

Development of an innovative process which uses low value greasy wools for absorbing oil and other hydrocarbons accidentally spilled at sea.

Abstract

Thanks to the great oil adsorbing power of the wool fibers and water repellence due to the lanolin grease, it is possible to reduce the damage caused by oil spills at sea and onto surface water (seas, lakes, rivers). Wool can absorb up to 10 times its weight of oil and can be re-used several times. The process is very fast and the plant can be installed on already existing ships.

10 tons of greasy wool can absorb up to 950 tons of oil (6,350 barrels).

Economic benefits:

- the recovered oil can be reused and refined
- the exhausted wool can be used as a fuel waste-to-energy plants

Ecological benefit:

- recovering oil from the sea without using chemicals

The process was patented. A first pre-industrial prototype was built, tested and patented.



Intesa del progetto «Anno europeo dello Sviluppo 2015» di rete media-lungo periodo. Il progetto è stato realizzato nella Rete Italiana dei Centri di Occupazione Europea (CIO) con il contributo della Rappresentanza in Italia della Commissione Europea.

Project for the development of cooperative innovation

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PROTECTOR 2015-2019



REGIONE PIEMONTE



Ministero dell'Economia e delle Finanze

Progetto cofinanziato dall'Unione Europea, dal Ministero dell'Economia e delle Finanze e dalla Regione Piemonte