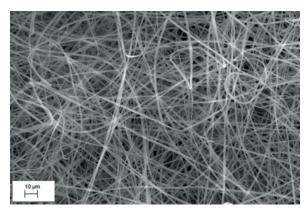
## FUNCTIONAL FABRICS BASED ON NANOFIBERS PRODUCED FOR ELECTROSPINNING

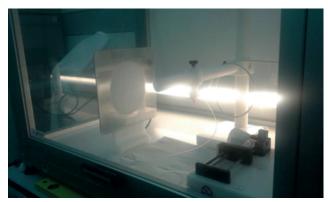
**Innovations and Benefits** - Production of fabrics made up of eco- and bio-sustainable nanoscale fibers based on bio-based polymers; transfer of functional properties to fabrics by the insertion of nanocharges that can make them antibacterial, hydro / oil repellent, soundproofing, thermally insulating, electrically conductive; use of low-cost and easily scalable technology.

**Use** - Functionalized fabrics for vehicles interiors, materials with specific functional properties for the textile and furniture sectors, nanocontacts, membranes for air filtration, reinforcing material for composites and laminates.

**Applications and ongoing Activities** - Creation of prototypes as components of technical clothing (MAIND Project); realization of proton conduction membranes for PEMFC (Fuel cells with proton exchange membrane, SEB Project).



1) SEM image of nanofibers obtained for electrospinning



2) Elettrospinning Plant

	RESEARCH TO PROVE FEASIBILITY			TECHNOLOGY DEMONSTRATION			SYSTEM TEST, LAUNCH & OPERATIONS		
BASIC TECHNOLOGY RESEARCH		TECHNOLOGY DEVELOPME		PMENT	SYSTEM/SUBSYSTEM DEV		ELOPMENT		
TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9	
	TECHNOLOGY READINESS LEVEL								



Italian National agency for new technologies, Energy and sustainable economic development www.enea.it Department for sustainability

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