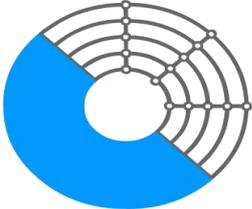


<p>H2020 – NMP PILOT 02</p> <p>Integration of novel nano materials into existing production lines</p>	
<p>Title: Processing and control of novel nanomaterials in packaging, automotive and solar panel processing lines</p> <p>Acronym: OptiNanoPro</p> <p>Grant Agreement No: 686116</p> <div style="text-align: center;">   </div>	
Deliverable 1.2	Survey of commercial nanoparticles and strategy for further functionalisation needed
Associated WP	WP1
Associated Task(s)	Task 1.2 Survey and selection of nanoparticles
Due Date	01/02/2016
Date Delivered	29/02/2016
Prepared by (Lead Partner)	MBN
Partners involved	EURECAT, ITENE, FRAUNHOFER, HPX, IRIS and IOM
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Dissemination Level	CO

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1 Publishable Executive Summary

This deliverable, *D1.2 Survey of commercial nanoparticles and strategy for further functionalisation needed*, is part of the work carried out in WP1, *Industry specifications*, of the EU- funded NMP Pilot project OptiNanoPro, *Processing and control of novel nanomaterials in packaging, automotive and solar panel processing lines*. The project aims at introducing nanotechnology in industrial product lines and validates the nano-enabled products through 4 types of demonstrators: a self-cleaning solar panel (OPV), a barrier injected packaging, easy-emptying and/or barrier laminated tubes, a light weight car door panel. The gathering of industrial specifications for the development of nanocomposites requires to define the combination of matrices, fillers and processes to be utilized in Optinopro to bring innovation in industrial pilot lines. Within the related task 1.2 *Survey and selection of nanoparticles*, this deliverable resumes the activities of initial selection of the nanomaterials and fillers of interest in the project, evidencing their sources and availability

Objectives of the deliverable:

- To Support the selection of nanoparticles for each case study and processing technology
- To Benchmark products commercially available
- To evidence lacks on the market that need to be recovered looking for research-grade nanoparticles (NPs)

Eleven nanomaterial are reported for the three main targeted properties, gas barrier properties, easy emptying and light weight. They will be investigated and combined with the different matrices to evaluate the systems that will be up-scaled for their industrial demonstration. A direct link with the project has been already established with some of the manufacturers, who are member of the Optinopro's advisory board.