



MASTRO

Wednesday

7th of July
2021

9am CET

**MASTRO- Developing Intelligent bulk Materials
for Smart Transport Industries**

[Register here:](#)



MASTRO

SCOPE/OBJECTIVES

The MASTRO project is developing intelligent nano enabled bulk incorporating several self-responsiveness properties for the transportation sector. The aim is to increase consumer safety, component life-span and performance while reducing maintenance and manufacturing costs as well as through-life greenhouse gas emissions.

Our project is heading towards the end, and we are proud to share our major achievements via a dissemination workshop. The workshop is divided into 3 sessions covering the main research activities implemented throughout the project's lifetime:

Session I: *Smart materials development*

In session I, our material experts UNSIA and CETMA will present the intelligent bulk materials design and development process covering the design of anti/de-icing bulk resins based on the joule heating (UNISA) and the development of smart thermoplastics with self-responsive functionalities for automotive and aerospace applications (CETMA).

Session II: *Smart functionalities model*

In session II, the multi-scale predictive modelling approach which aims to simulate the self-responsive functionalities addressed in the project will be presented by IPC.

Session III: *Demonstrators in the aerospace, automotive and transport infrastructure sector*

In session III, our end users will present the demonstrators developed in order to validate the functionality of the intelligent bulk materials incorporated in various critical transport sector components.

Finally, Pinout Solutions will present in the MASTRO ICT Platform developed with the aim to turn data into valuable insights using Industry 4.0 technologies.



AGENDA

Intelligent bulk **MA**terials for **S**mart **TR**ansp**OR**t industries

TIME	AGENDA ITEM	
09:00 - 09:15	Welcome and general introduction	AXIA
Session I: Smart Material Development		
09:15 - 09:45	Design of anti/de-icing bulk resins based on the joule heating	UNISA
09:45 - 10:15	Development of smart thermoplastics with self-responsive functionalities for automotive and aerospace applications	CETMA
Session II: Smart functionalities model		
10:15 - 10:45	Smart functionalities model	IPC
10:45 - 11:00	Coffee Break	
Session III: Demonstrators of the aerospace, automotive and transport infrastructure sectors		
11:00 - 11:50	High performance smart composites for use in Aerospace and Automotive applications	AMRC, Sheffield University
11:50 - 12:10	Self-heating smart components for automotive exterior applications	ALKE
12:10 - 12:30	Self-heating textile for automotive interior	CITEVE
12:30 - 13:00	Lunch	
13:00 - 13:20	Development of smart concrete with self-strain sensing functionalities for civil engineering and architecture applications	University of Alicante
13:20 - 13:40	Design of Smart Asphalt pavements	ACCIONA
13:40 - 14:00	The MASTRO ICT Platform: turning data into valuable insights using Industry 4.0 technologies	Pinout Solutions
14:00 - 14:30	Closing discussion	AXIA, All



SPEAKERS

Liberata Guadagno



Patrick Dewailly



Lamberto Salvan



Andrea Tinti



Matthew G Collinson



MASTRO

SPEAKERS

Sofia Silva
Lúcia Rodrigues



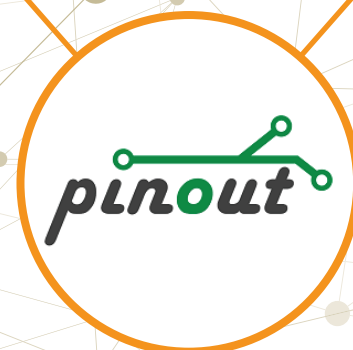
Silvia Hernandez Rueda



Myrto Pelopida



Pedro Garcés Terradillos



Ignacio del Val Alfaro