# Lightme



## FIRST INTERNATIONAL CONFERENCE ON LIGHTWEIGHT MATERIALS

Milan, Politecnico di Milano premises



11<sup>th</sup> May 2023 to 12<sup>th</sup> May 2023



No fees applied for the conference

MORE INFO AT: www.lightme-ecosystem.eu

### AGENDA



#### **Conference Location**

Politecnico di Milano (PoliMi) premises, Piazza Leonardo da Vinci 32, 20133 Milano.

\*All times are in CET

Link for online participation/ 1<sup>st</sup> day

Day 1	Thursday 11 May 2023		
10:00 - 12:00	LightMe Project Internal Meeting <sup>1</sup>		
	(Closed sessions only for LightMe partners)		
12:00 - 13:45	Registration, Light Lunch and Posters Session (All participants)		
	Location: Building 6, Piazza Piazza Leonardo da Vinci 32, 20133 Milano		
	Conference Opening		
13.45 14.00	Location: Room Rogers, Via Ampere 2, 20133 Milano		
13:45 - 14:00	Professor Luca Magagnin, PoliMi, LightMe Project Coordinator		
14:00 - 15:40	Session 1		
14:00 - 14:20	Presentation 1		
14:20 - 14:40	Presentation 2		
14:40 - 15:00	Presentation 3		
15:00 - 15:20	Presentation 4		
15:20 - 15:40	Presentation 5		
15:40 - 16:00	Coffee Break		
16:00 - 17:20	Session 2		
16:00 - 16:20	Presentation 6		
16:20 - 16:40	Presentation 7		
16:40 - 17:00	Presentation 8		
17:00 - 17:20	Presentation 9		
17:20 - 18:20	Workshop		
	Funding Opportunities		
19.20 20.00	Get Together Party		
10:30 - 20:00	Location: Building 6, Piazza Piazza Leonardo da Vinci 32, 20133 Milano		

<sup>&</sup>lt;sup>1</sup> This session is only for LightMe Partners.



#### **Conference Location**

Politecnico di Milano (PoliMi) premises, Piazza Leonardo da Vinci 32, 20133 Milano.

\*All times are in CET

Link for online participation/ 2<sup>nd</sup> day

Day 2	Friday 12 May 2023			
9:00 - 09:25	Registration			
	Location: Room Rogers, Via Ampere 2, 20133 Milano			
09:25 - 09:40	Keynote Speaker – EU Officer (tbc)			
09:40 - 11:20	Session 3			
09:40 - 10:00	Project 1			
10:00 - 10:20	Project 2			
10:20 - 10:40	Project 3			
10:40 - 11:00	Project 4			
11:00 - 11:20	Project 5			
11:20 - 11:40	Coffee Break			
11:40 - 12:40	Session 4			
11:40 - 12:00	Presentation 10			
12:00 - 12:20	Presentation 11			
12:20 - 12:40	Presentation 12			
12:40 - 14:00	Light Lunch and Posters Session   Location: Building 6, Piazza Piazza Leonardo da Vinci 32, 20133 Milano			
14:00 - 15:00	Session 5			
14:00 - 14:20	Presentation 13			
14:20 - 14:40	Presentation 14			
14:40 - 15:00	Presentation 15			
15:00 - 15:20	Presentation 16			
15:20 - 16:00	Coffee Break			
End of event				



Session 1			
Code	Title	Name/ Entity	
Presentation 1	Design, manufacturing, assembly and setup of innovativy hybrid powertrain light materials components for energy, automotive and aerospace application.	Dr. Sergio Durante/ Durante Space Tech	
Presentation 2 Keynote Speaker	Shape Memory Alloys (SMAs) based Composites for Automotive Crashworthiness Applications.	Mr. Ahmed ELMASRY/ Northumbria University, Newcastle	
Presentation 3 Keynote Speaker	Thermoplastic selection for aluminum replacement in electric and electronic devices made by additive manufacturing.	Dr. Joamin Gonzalez-Gutierrez / Luxembourg Institute of Science and Technology (LIST)	
Presentation 4 Keynote Speaker	Optimizing the bumper beam and crash box of a vehicle with shape memory alloys for crash worthiness.	Mr. Mohab Elmarakbi/ Northumbria University, Newcastle	
Presentation 5	Safe and sustainable by design strategies for lightweight metal alloys with a nanocomponent in LightMe project.	Dr. João P. Laranjeira/ ISQ	
	Session 2		
Code	Title	Name/ Entity	
Presentation 6 Keynote Speaker	Development and processing of the Al 5356 aluminium alloy by Laser Metal Deposition wire-based technology.	Dr. Julia Ureña Alcázar/ Technology Centre of Metal-Mechanical and transport (CETEMET)	
Presentation 7	Implementation success: Open DED-LB/Mw Pilot Line for manufacturing high quality Ti parts.	Dr. Pilar Rey Rodriguez / AIMEN Technology Centre	
Presentation 8	Modelling of Laser Based DED Processes Reinforced with Nanoparticles and Validated by Dimension Measurement.	Dr. Gongyuan Zheng/ ACCESS	
Presentation 9	High Pressure Die Cast nano-AlN reinforced AZ91 Magnesium Alloy.	Mr. Mahfuz Karim/ Brunel University London	
Session 3			
Code	Title	Name/ Entity	
Project 1 Keynote Speaker	ALMA PROJECT Eco-design of lightweight structural parts for electric vehicles	Ms. Vanessa Ventosinos / CTAG – Automotive Technology Centre of Galicia	
Project 2 Keynote Speaker	REVOLUTION Project Recycled materials and future electric vehicles	Ms. Tuğba OKAY/ TOFAS	



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Project 3	MULTHEM Project	Dr. Marta Álvarez Leal/ CETEMET,		
Keynote Speaker	Multi-material additive manufacturing for lightweight and thermal management	Metal-Mechanical and Transport		
Project 4	SALIENT Project	Prof. Ahmed Elmarakbi/ University		
Keynote Speaker	Novel Concepts for Safer, Lighter, Circular and Smarter Vehicle Structure Design for Enhanced Crashworthiness and Higher Compatibility	of Northumbria at Newcastle		
Project 5	FLAMINGO project	Mr. Enrico Forlin/ MBN		
Keynote Speaker	Lightweight Aluminium Metal matrix nano-composites and validation In Green vehicles	NanoMaterialia		
Session 4				
Code	Title	Name/ Entity		
Presentation 10	Environmental friendly metallization of 3D printed photocurable resin lightweight	Dr. Alexandros Zoikis Karathanasis/		
Keynote Speaker	objects.	Creative Nano		
Presentation 11	Feasibility study of joining of carbon fibre-reinforced polymer composites and	Ms. Aybıke Yalçınyüza/ Fraunhofer		
Keynote Speaker	aluminium alloys by electron beam welding for use in lightweight construction.	Institute of Production Systems and Design Engineering (IPK)		
Presentation 12 Keynote Speaker	Repair of impacted thermoplastic composite laminates using induction welding.	Mr. Vedant Modi/ EIRE Composites		
Reynore Speaker	Session 5			
Code	Title	Name/ Entity		
Presentation 13	Combined SPS-KOBO technology for manufacturing profiles from aluminum- based composites.	Dr. Dariusz Garbiec/ Łukasiewicz Research Network – Poznań Institute of Technology		
Presentation 14 Keynote Speaker	Additive Manufacturing possibility for Stellite 6 with WC particles for repair applications in Bulgaria.	Dr. Svetlana Boshnakova/ Bulgarian Welding Society, Burgas Section Bulgaria (BCQW)		
Presentation 15	Characterization of Ti6Al4V + TiC % wt. powder for AM technology	Mr. Alessandro Asaro/ IRIS srl		
Presentation 16	SiC and TiC wrought Aluminium composites processed using ultrasound assisted stir casting	Mr. Abdallah Abu Amara/ Brunel University London		



Poster Session				
Code	Title	Name/ Entity		
Poster 1	BioNanoPolys Open Innovation Test Bed: Open Innovation Test Bed for	Ms. Raquel Moreno/ AXIA		
	Developing Safe Nano-Enabled Bio-Based Materials and Polymer	Innovation		
	Bionanocomposites for Multifunctional and new Advanced Applications.			
Poster 2	Patent landscape analysis of lightweight aluminium metal matrix nano-composites	Dr. Ioanna Katsavou/ EXELISIS		
	for applications in green vehicles.			
Poster 3	BIOMAC: How bio-based nanomaterial players can effectively build an open	Dr. Marinela Tsakalova/ AXIA		
	community? A tool to its sustainable realisation!	Innovation		
Poster 4	Open Innovation test bed for development and production of nanomaterials for	Mr. Vasilis Maris/ AXIA Innovation		
	lightweight embedded electronics.			
Poster 5	Safe and sustainable by design solutions for the plating on plastics process.	Dr. Alexandros Zoikis Karathanasis /		
		Creative Nano		
Poster 6	LightCoce Open Innovation Test Bed: An Ecosystem for the up-scaling of	Ms. Maria Tsianti/ EXELISIS		
	lightweight multi-functional concrete and ceramic materials and structures.			
Poster 7	Sustainable materials and process for green printed electronics.	Ms. Fernanda Madeu/ AXIA		
		Innovation		
Workshop				
Code	Title	Name/ Entity		
Workshop 1	Funding Opportunities	Ms Marta Lozano/ SD Partners		



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